EUROfusion

Work Package
Code Development
for integrated modelling

ITM

December 17, 2020

Contents

This website is not entirely current. .

ITM new Gateway , please read Announcements page (1).

The **Integrated Tokamak Modeling Task Force (ITM-TF)** was set up in 2004 with the long term aim to provide the EU with a suite of codes necessary for preparing and analyzing future ITER discharges, with the highest degree of flexibility, confidence and reliability.
In brief:

Aims:

- Coordinate the development of a coherent set of validated simulation tools
- Benchmark these tools on existing tokamak experiments
- Provide a comprehensive simulation package for ITER and DEMO plasmas

Remit:

- Coordinate the necessary software development with the goal of minimizing parallel efforts on the European level
- Development of the necessary standardized software tools for interfacing code modules and accessing experimental data

Medium term activities:

- Support the development of ITER-relevant scenarios in current experiments
- Initiate a comprehensive Verification (29) and Validation (29) activity for the ITM-TF tools

- IMAS Data Dictionary: 3.10.2 [1]
- IMAS Data Dictionary: 3.12.1 [2]
- IMAS Data Dictionary: 3.15.1 [3]
- IMAS Data Dictionary: 3.17.0 [4]
- IMAS Data Dictionary: 3.21.1 [5]
- IMAS Data Dictionary: 3.23.1 [6]

1 Announcements

1.1 New ITM Gateway

The provision of a new computing cluster for the ITM-TF was approved at the 51st EFDA SC meeting in Stockholm 4 July 2012 (EFDA (12) 51-5.1.1). **The new Gateway machine is hosted at IPP Garching and started operation during February 2013** , for a scheduled duration of 4 years.

All information is available on the new Gateway webpages http://itm.ipp.mpg.de [7]

1.2 Code Camps 2013

Below you can find the list of Code Camps planned in 2013. Please check for updates of the dates and locations of the last event.

[1] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.10.2/dd_physics_data_dictionary.html
[2] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.12.1/dd_physics_data_dictionary.html
[3] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.15.1/dd_physics_data_dictionary.html
[4] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.17.0/dd_physics_data_dictionary.html
[5] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.21.1/dd_data_dictionary.xml.html
[6] https://www.efda-itm.eu/ITM/imports/itm/public/imas_data_dictionary/3.23.1/dd_data_dictionary.xml.html
[7] http://itm.ipp.mpg.de

Topics	Dates	Location
• ETS workflows/integration + ITM tools training	4-15 March	IPP- Garching
• Edge, AMNS, ETS workflows/ integration	15-26 April	Madrid (CIEMAT)
• ETS workflows/integration	8-19 July	Helsinki (TEKES), satellite to EPS
• Edge Code Camp / IMP4	9-20 September	Ljubljana (MESCS)
• ETS workflows/integration	18-29 November	Lisbon (IST)

1.3 Working Sessions

- **Second ISM WS** 3-7 June, Cadarache, joint ISM - IO meeting on integrated modelling
- **Third ISM WS** end of October/November, place tbd

The Code Camps and working sessions are covered by Euratom-mobility.
ITM members participating in activities under Priority Support should note that attendance to at least one of the Code Camps is mandatory for the approval of the Priority Support.

1.4 Garching Code Camp (March, 2013)

The first code camp in 2013 will be hosted by EFDA and will be held during Monday, March 4th to Friday, March 15th at Garching, Germany. Some training sessions will take place dutring the first week of the code camp, on Monday 4th to wednesday 6th. ETS trainings might be held on the second week.

For registration and information see http://www2.efda.org/cc2013-1/index.php [8] (username: itm password: cc2013).

1.5 Madrid Code Camp, April 15-26 2013

The second ITM code camp will be hosted by CIEMAT in Madrid starting on Monday 15th April at 1pm and ending on Friday 26th at about 1pm.

For registration and information see http://www2.efda.org/cc2013-2/index.php [9] (username: itm password: cc2013).

Registration for the participation in the Code Camp closes March 28th.

1.6 Helsinki Code Camp, 8-19 July 2013

The third ITM Code Camp will be hosted in Helsinki, by Aalto University, as a satellite to the 40th EPS conference.

The Code Camp will be starting on Monday July 8th at 1pm and ending on Friday 19th July at 1pm.

This Code Camp will have an ITM wide focus and it is expected to give the opportunity to achieve significant progress in all ITM activities. Participation of a project leader and/or at least one responsible person for the main modules/actors part of ETS workflows is recommended. All ITM members are welcome to participate if needing support to upgrade modules/actors to latest UAL/datastructure and integrate those into ITM workflows.

For registration and information see http://www2.efda.org/cc2013-3/index.php [10] (username: itm password: cc2013).

Registration closes June 1st.

[8] http://www2.efda.org/cc2013-1/index.php
[9] http://www2.efda.org/cc2013-2/index.php
[10] http://www2.efda.org/cc2013-3/index.php

1.7 Ljubljana (Slovenia) Code Camp, 9-20 September 2013

The fourth ITM Code Camp will be hosted in the University of Ljubljana, Faculty of Mechanical Engineering (ULMFE), starting on Monday September 9th at 1pm and ending on Friday 20th at 1pm.

Information is available on a dedicated webpage http://www2.efda.org/cc2013-4/index.php [11] (username: itm password: cc2013)

Local responsible and further info: leon.kos@lecad.fs.uni-lj.si

1.8 Lisbon (Portugal) Code Camp, 18-29 November 2013

The fifth ITM Code Camp will be hosted in the IST Congress Centre, starting on Monday November 18th at 1pm and ending on Friday 29th at 1pm.

The **ITM-TF Annual Meeting** will take place on November 21st as part of the event.

Information is available on a dedicated webpage http://www2.efda.org/cc2013-5/index.php [12] (username: itm password: cc2013)

Local responsible and further info: rcoelho@ipfn.ist.utl.pt

Code Camp, Trainings and General Meeting AGENDA , Agenda [13]

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last update: 2015-11-20 by dpc

2 Support

2.1 Getting support for the ITM platform and Gateway

The ITM provides several ways to get support when you run into problems. Which one to choose depends on the nature of your problem. This page tries to give an overview.

2.2 Support for problems related to the ITM Gateway

The official documentation of the ITM Gateway can be found at https://itm.ipp.mpg.de [14].

Please look here for how to report problems with the Gateway: https://itm.ipp.mpg.de/wiki/ITM/index.php/How_to_get_ [15].

2.3 Support for problems related to the ITM Platform and Software

All ITM-specific software and the whole ITM platform is supported by the Core Programming Team (CPT). You can submit trouble tickets to them via the General Support Project in the GForge system. To get more effective help, have a look at the guidelines prepared here: How to report an issue [16].

To directly submit a trouble ticket, go to: General Support Tracker (https://gforge6.eufus.eu/project/generalsupport/tracke [17].

Use this support tracker if your problem falls in the following categories:

- Problems using the UAL, FC2K, HPC2K or similar tools
- Problems running Kepler or Kepler workflows
- Visualization tools: VisIt, Python
- Integrated Simulation Editor (ISE)
- Any software project that is hosted in GForge
- Any kind of scientific software

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[11] http://www2.efda.org/cc2013-4/index.php
[12] http://www2.efda.org/cc2013-5/index.php
[13] https://www.efda-itm.eu/ITM/imports/itm/public/AGENDA_Lisbon2013.pdf
[14] https://itm.ipp.mpg.de
[15] https://itm.ipp.mpg.de/wiki/ITM/index.php/How_to_get_support#Support_from_RZG
[16] http://portal.efda-itm.eu/twiki/bin/view/Main/HowToReportAnIssue
[17] https://gforge6.eufus.eu/project/generalsupport/tracker/?action=TrackerItemAdd&tracker_id=184

2.4 Feature requests for ITM Software

Feature requests for software developed within the ITM can be submitted to a separate tracker.

To submit a feature request, please go to General Feature Request Tracker [18].

If you are unsure whether to file a bug report of feature request, have a look at these guidlines: How to report an issue [19].

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last update: 2019-01-31 by g2dpc

3 AMNS

3.1 Scientific Rationale and Main Objectives

The ITM has a broad need for data relating to atomic, molecular, nuclear and surface data (AMNS). In particular, AMNS data are needed in several of the ITM modelling projects. A consistent approach, taking into account the specific requirements of the ITM while maintaining the work aligned with other European efforts in this area, is therefore required. As a consequence the AMNS tasks are implemented as Tasks under the TF leadership and has the following scope:

- Coordination of the work in the four different sub areas.

- Supply of data not presently residing in easily accessible data bases.

- Identify any Intellectual Property Rights (IPR) protection needs in view of a broader collaboration with ITER partners.

- Provide software for delivery of AMNS data to ITM-TF codes

3.2 ITM contact person

David Coster
email: David.Coster@ipp.mpg.de

3.3 AMNS tasks

The AMNS work is divided into two broad areas:

- The maintenance and development of the AMNS library (and the associated AMNS CPO) to provide access to AMNS data in the various languages used by the codes within the Work Package
- The addition to the AMNS database of AMNS data needed by the codes within the Work Package

3.4 AMNS Documentation

The AMNS library is meant to be called by Work Package codes if the codes need data for Atomic, Molecular, Nuclear or Surface processes. The calling sequence is described in more detail below, but the basic idea is: (1) initialize the package; (2) request data for a particular reaction by initializing a "table" for that reaction; (3) (repeatedly) requesting data for that reaction as a fuction of plasma or other parameters; (4) finishing with the table; and (5) finishing with the AMNS library.

The actual AMNS data is provided by CPOs stored under the "amns" tokamak and will first be searched for in the user's database, and if not found there, the system will default to obtaining the data from the public AMNS database. Multiple versions of the AMNS data are possible: in 4.09a and 4.09b this was done via a mysql database; in 4.10a and later this is done by having an index block stored in shot 0, run 1 of the AMNS CPO.

Some presentations:

- *Nuclear reactions* (pdf [20]), by V. Kiptily

[18] https://gforge6.eufus.eu/project/generalsupport/tracker/?action=TrackerItemBrowse&tracker_id=702
[19] https://portal.efda-itm.eu/twiki/bin/view/Main/HowToReportAnIssue
[20] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf

- *Simulations of the edge plasma: the role of atomic, molecular and surface physics* (pdf [21]), by D. P. Coster, S. Gori, X. Bonnin, D.Reiter, A.Kukushkin, P. Krstic, P. Strand, L.-G. Eriksson, Contributors to the EFDA TF ITM
- *Atomic, Molecular, Surface and Nuclear (AMSN) data for the ITM-TF* (pdf [22]), presented by D.P. Coster (IMP3 Leader) at the ADAS workshop, based on the talk given by Lars-Goran Eriksson at the ITM General Meeting, 2008-09
- *ITM AMNS Interface* (pdf [23]), by D.P. Coster

Some papers:

- *Simulations of the edge plasma: the role of atomic, molecular and surface physics* (pdf [24]), by D.P. Coster, X. Bonnin, D. Reiter, A. Kukushkin, S. Gori, P. Krstic, P. Strand, L.-G. Eriksson and Contributors to the EFDA-TF-ITM

The present coding for the AMNS project is done in the gforge (29) amnsproto project [25].

3.4.1 AMNS User Interface

This section discusses the user interface to the AMNS subsystem.

The AMNS library is made available via a module - available versions can be found by executing

```
module avail amns
```

The include and library locations are specified via the "pkg-config" system. To display the available package names do

```
pkg-config --list-all | grep amns
```

Doxygen information about the user interface can be found here [26].

The AMNS library can be called from

1. Fortran
2. C
3. Python
4. Java (in development)
5. Matlab (in development)

The various bindings for the different languages are given below, but make use of a set of standard concepts which are described first.

3.4.1.1 AMNS User Interface Data Structures

A number of data structures are used by the library interface. Some are opaque (i.e. the contents are not of relevance to the user), and some need to be set or read by the user programme.

The two opaque types are handles which are returned by the setup routines and then need to be passed to the other routines:

1. amns_handle_type, used for the database wide routines

[21] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_talk.pdf
[22] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[23] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[24] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[25] https://gforge6.eufus.eu/project/amnsproto/
[26] https://portal.eufus.eu/documentation/ITM/doxygen/amns/amnsproto/User/4.10b/

2. amns_handle_rx_type, used for the reaction specific routines

In some language bindings these are the basis of classes.
The non-opaque types are:

1. amns_error_type, used to indicate if an error occured and, if so, what the error was
2. amns_reaction_type, used to indicate the requested reaction
3. amns_set_type, used to set an AMNS internal parameter
4. amns_query_type, used to query an AMNS internal parameter
5. amns_answer_type, used to contain the answer from an AMNS query
6. amns_version_type, used to specify the AMNS version
7. amns_reactants_type, used to specify the reactants to a reaction
8. amns_reactant_type, a sub-component of amns_reactants_type used to characterize the individual reactants

The definitions of these data types can be found at the doxygen documentation for the AMNS User routines [27]

3.4.1.2 AMNS User Interface Data Reactions

The currently available reactions specified in reaction_typex%string in the call to ITM_AMNS_SETUP_TABLE are

1. RC: Recombination (acd)
2. EI: Electron Impact Ionisation (scd)
3. CX: CX recombination coeffts (ccd)
4. BR: Recomb/brems power coeffts (prb)
5. LR: Line radiation (plt)
6. ZE: Effective Charge (zcd)
7. ZE2: Effective Square Charge (ycd)
8. EIP: Effective Ionisation Potential (ecd)
9. some nuclear reactions
10. ...

The actual reactions are listed in the AMNS section.

3.4.1.3 AMNS User Interface Data Queries

The currently available queries for query%string in the call to ITM_AMNS_QUERY is

1. version: Return the version information

The currently available queries for query%string in the call to ITM_AMNS_QUERY_TABLE are

1. source: source (origin) of the data
2. no_of_reactants: number of tractants involved
3. index: Not sure what this is
4. filled: whether the data table has been filled (”Filled” or ”Empty”)

[27] https://portal.eufus.eu/documentation/ITM/doxygen/amns/amnsproto/User/4.10b/

5. reaction_type: reaction type
6. reactants: nuclear charges of reactants
7. version: information about the version
8. state_label: label for the charge state (if appropriate)
9. result_unit: units of the result
10. result_label: description of the result

3.4.1.4 AMNS User Interface Data Setting Options

The currently setting options for set%string in the call to ITM_AMNS_SET is

1. NONE

The currently available setting options for set%string in the call to ITM_AMNS_SET_TABLE is

1. nowarn: deactivate warning when extrapolating

3.4.1.5 FORTRAN AMNS User Interface

The fortran interface to the AMNS subsystem is based on a standardised set of calls to the AMNS library. The details of what lies behind these calls is the responsibility of the AMNS data providers and does not need to be understood by the users of the AMNS data.

The code modules devloped for the AMNS project are hosted in gforge (29) as the project amnsproto [28].

3.4.1.5.1 AMNS User Interface: Fortran Calls

The 9 calls to the AMNS system are:

1. ITM_AMNS_SETUP, initialization call for the AMNS package

```
subroutine ITM_AMNS_SETUP(handle, version, error_status)
  optional version, error_status
  type(amns_handle_type), intent(out) :: handle
  type(amns_version_type), intent(in) :: version
  type(amns_error_type), intent(out) :: error_status
```

2. ITM_AMNS_QUERY, query routine for the AMNS package

```
subroutine ITM_AMNS_QUERY(handle,query,answer,error_status)
  optional error_status
  type(amns_handle_type), intent(in) :: handle
  type(amns_query_type), intent(in) :: query
  type(amns_answer_type), intent(out) :: answer
  type(amns_error_type), intent(out) :: error_status
```

3. ITM_AMNS_SET, set a parameter for the AMNS package

```
subroutine ITM_AMNS_SET(handle,set,error_status)
  optional error_status
  type(amns_handle_type), intent(in) :: handle
  type(amns_set_type), intent(in) :: set
  type(amns_error_type), intent(out) :: error_status
```

4. ITM_AMNS_FINISH, finalization call for the AMNS package

[28] https://gforge6.eufus.eu/project/amnsproto/

```
subroutine ITM_AMNS_FINISH(handle, error_status)
  optional error_status
  type(amns_handle_type), intent(inout) :: handle
  type(amns_error_type), intent(out) :: error_status
```

5. ITM_AMNS_SETUP_TABLE, initialization call for a particular reaction

```
subroutine ITM_AMNS_SETUP_TABLE(handle, reaction_type, reactant, handle_rx, error_status)
  optional error_status
  type(amns_handle_type), intent(in) :: handle
  type(amns_reaction_type), intent(in) :: reaction_type
  type(amns_reactants_type), intent(in) :: reactant
  type(amns_handle_rx_type), intent(out) :: handle_rx
  type(amns_error_type), intent(out) :: error_status
```

6. ITM_AMNS_QUERY_TABLE, query routine for a particular reaction

```
subroutine ITM_AMNS_QUERY_TABLE(handle_rx,query,answer,error_status)
  optional error_status
  type(amns_handle_rx_type), intent(in) :: handle_rx
  type(amns_query_type), intent(in) :: query
  type(amns_answer_type), intent(out) :: answer
  type(amns_error_type), intent(out) :: error_status
```

7. ITM_AMNS_SET_TABLE, set a parameter for a particular reaction

```
subroutine ITM_AMNS_SET_TABLE(handle_rx,set,error_status)
  optional error_status
  type(amns_handle_rx_type), intent(in) :: handle_rx
  type(amns_set_type), intent(in) :: set
  type(amns_error_type), intent(out) :: error_status
```

8. ITM_AMNS_FINISH_TABLE, finalization call for a particular reaction

```
subroutine ITM_AMNS_FINISH_TABLE(handle_rx, error_status)
  optional error_status
  type(amns_handle_rx_type), intent(inout) :: handle_rx
  type(amns_error_type), intent(out) :: error_status
```

9. ITM_AMNS_RX, get the rates associated with the input args for a particular reaction

```
interface ITM_AMNS_RX
  module procedure ITM_AMNS_RX_1, ITM_AMNS_RX_2, ITM_AMNS_RX_3
end interface

subroutine ITM_AMNS_RX_1(handle_rx,out,arg1,arg2,arg3,error_status)
  optional arg2,arg3,error_status
  type(amns_handle_rx_type), intent(inout) :: handle_rx
  real (kind=R8), intent(out) :: out(:)
  real (kind=R8), intent(in) :: arg1(:),arg2(:),arg3(:)
  type(amns_error_type), intent(out) :: error_status

subroutine ITM_AMNS_RX_2(handle_rx,out,arg1,arg2,arg3,error_status)
  optional arg2,arg3,error_status
  type(amns_handle_rx_type), intent(inout) :: handle_rx
  real (kind=R8), intent(out) :: out(:,:)
  real (kind=R8), intent(in) :: arg1(:,:),arg2(:,:),arg3(:,:)
  type(amns_error_type), intent(out) :: error_status
```

```
subroutine ITM_AMNS_RX_3(handle_rx,out,arg1,arg2,arg3,error_status)
  optional arg2,arg3,error_status
  type(amns_handle_rx_type), intent(inout) :: handle_rx
  real (kind=R8), intent(out) :: out(:,:,:)
  real (kind=R8), intent(in) :: arg1(:,:,:),arg2(:,:,:),arg3(:,:,:)
  type(amns_error_type), intent(out) :: error_status
```

3.4.1.5.2 AMNS User Interface Example (Fortran)

An example of the use of the code can be found in the (fortran minimal example [29]):

```
program minimal
  use itm_types
  use amns_types
  use amns_module

  implicit none

  type (amns_handle_type) :: amns                        ! AMNS global handle
  type (amns_handle_rx_type)  :: amns_rx                 ! AMNS table handle
  type (amns_reaction_type) :: xx_rx
  type (amns_reactants_type) :: species
  real (kind=R8) :: te=100.0_R8, ne=1e20_R8, rate

  call ITM_AMNS_SETUP(amns)                              ! set up the AMNS system
  allocate(species%components(4))                        ! set up reactants
  species%components = (/ amns_reactant_type(6, 1, 12, 0), &
                          amns_reactant_type(1, 0, 2, 0), &
                          amns_reactant_type(6, 0, 12, 1), &
                          amns_reactant_type(1, 1, 2, 1) /)
  xx_rx%string='CX'                                      ! set up reaction
  call ITM_AMNS_SETUP_TABLE(amns, xx_rx, species, amns_rx)   ! set up table
  call ITM_AMNS_RX(amns_rx, rate, te, ne)                ! get results
  write(*,*) 'Rate = ', rate
  call ITM_AMNS_FINISH_TABLE(amns_rx)                    ! finish with table
  call ITM_AMNS_FINISH(amns)                             ! finish with amns

end program minimal
```

3.4.1.5.3 AMNS User Interface Example Fortran Makefile

An example Makefile demonstrating the use of the AMNS routines:

```
obj/minimal: src/minimal.f90
        ifort -g -o $@ $< ${shell eval-pkg-config --cflags --libs \
          amns-amd64_intel_12 itmtypes-amd64_intel_12 ual-amd64_intel_12}
```

Other examples can be found (here [30]):

3.4.1.6 C AMNS User Interface

The C interface to the AMNS subsystem is based on a standardised set of calls to the AMNS library. The details of what lies behind these calls is the responsibility of the AMNS data providers and does not need to be understood by the users of the AMNS data.

[29] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/fortran/
[30] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/

The code modules devloped for the AMNS project are hosted in gforge (29) as the project amnsproto [31].

3.4.1.6.1 AMNS User Interface: C Calls

The 9 calls to the AMNS system are:

1. ITM_AMNS_SETUP, initialization call for the AMNS package

```
void ITM_AMNS_C_SETUP(void **handle_out, amns_error_type *error_status);
```

2. ITM_AMNS_QUERY, query routine for the AMNS package

```
void ITM_AMNS_C_QUERY(void *handle_in, amns_query_type *query,
                      amns_answer_type *answer, amns_error_type *error_status)
```

3. ITM_AMNS_SET, set a parameter for the AMNS package

```
void ITM_AMNS_C_SET(void *handle_in, amns_set_type *set, amns_error_type *error_status);
```

4. ITM_AMNS_FINISH, finalization call for the AMNS package

```
void ITM_AMNS_C_FINISH(void **handle_inout, amns_error_type *error_status);
```

5. ITM_AMNS_SETUP_TABLE, initialization call for a particular reaction

```
void ITM_AMNS_C_SETUP_TABLE(void *handle_in, amns_reaction_type *reaction_type,
                            void *reactant_handle_in, void **handle_rx_out,
                            amns_error_type *error_status);
```

6. ITM_AMNS_QUERY_TABLE, query routine for a particular reaction

```
void ITM_AMNS_C_QUERY_TABLE(void *handle_rx_in, amns_query_type *query,
                            amns_answer_type *answer, amns_error_type *error_status);
```

7. ITM_AMNS_SET_TABLE, set a parameter for a particular reaction

```
void ITM_AMNS_C_SET_TABLE(void *handle_rx_in, amns_set_type *set,
                          amns_error_type *error_status);
```

8. ITM_AMNS_FINISH_TABLE, finalization call for a particular reaction

```
void ITM_AMNS_C_FINISH_TABLE(void **handle_rx_inout, amns_error_type *error_status);
```

9. ITM_AMNS_RX, get the rates associated with the input args for a particular reaction

```
void ITM_AMNS_C_RX_0_A(void *handle_rx_in, double *out,
                       double arg1, amns_error_type *error_status);
void ITM_AMNS_C_RX_0_B(void *handle_rx_in, double *out,
                       double arg1, double arg2, amns_error_type *error_status);
void ITM_AMNS_C_RX_0_C(void *handle_rx_in, double *out,
                       double arg1, double arg2, double arg3, amns_error_type *error_s
tatus);

void ITM_AMNS_C_RX_1_A(void *handle_rx_in, int nx, double *out,
                       double *arg1, amns_error_type *error_status);
```

[31] https://gforge6.eufus.eu/project/amnsproto/

```
void ITM_AMNS_C_RX_1_B(void *handle_rx_in, int nx, double *out,
                       double *arg1, double *arg2, amns_error_type *error_status);
void ITM_AMNS_C_RX_1_C(void *handle_rx_in, int nx, double *out,
                       double *arg1, double *arg2, double *arg3, amns_error_ty
pe *error_status);

void ITM_AMNS_C_RX_2_A(void *handle_rx_in, int nx, int ny,
                       double *out, double *arg1, amns_error_type *error_status);
void ITM_AMNS_C_RX_2_B(void *handle_rx_in, int nx, int ny,
                       double *out, double *arg1, double *arg2, amns_error_type *error_status);
void ITM_AMNS_C_RX_2_C(void *handle_rx_in, int nx, int ny,
                       double *out, double *arg1, double *arg2, double *arg3, amns_error_type *er

void ITM_AMNS_C_RX_3_A(void *handle_rx_in, int nx, int ny, int nz,
                       double *out, double *arg1, amns_error_type *error_status);
void ITM_AMNS_C_RX_3_B(void *handle_rx_in, int nx, int ny, int nz,
                       double *out, double *arg1, double *arg2, amns_error_type *error_status);
void ITM_AMNS_C_RX_3_C(void *handle_rx_in, int nx, int ny, int nz,
                       double *out, double *arg1, double *arg2, double *arg3, amns_error_type *er
```

In addition, service routines are provided for dealing with reactants:

```
void ITM_AMNS_C_SETUP_REACTANTS(void **reactants_handle_out, char string_in[reaction_length],
                                int index_in, int n_react
ants);
void ITM_AMNS_C_SET_REACTANT(void *reactants_handle_in, int reactant_index, amns_reactant_type *reacta
void ITM_AMNS_C_GET_REACTANT(void *reactants_handle_in, int reactant_index, amns_reactant_type *reacta
void ITM_AMNS_C_FINISH_REACTANTS(void **reactants_handle_inout);
```

3.4.1.6.2 AMNS User Interface Example (C)

An example of the use of the code can be found in the (c minimal example [32]):

```
#include "amns_interface.h"

int main(int argc, char *argv[])
{
  void* amns_handle = NULL;
  amns_c_error_type error_stat = DEFAULT_AMNS_C_ERROR_TYPE;
  void* reactants_handle = NULL;
  amns_c_reactant_type species1  = {.ZN=6, .ZA=1, .MI=12, .LR=0};
  amns_c_reactant_type species2  = {.ZN=1, .ZA=0, .MI=2 , .LR=0};
  amns_c_reactant_type species3  = {.ZN=6, .ZA=0, .MI=12, .LR=1};
  amns_c_reactant_type species4  = {.ZN=1, .ZA=1, .MI=2 , .LR=1};
  amns_c_reaction_type xx_rx  = {.string = "CX"};
  void* amns_cx_handle;
  double rate;

  ITM_AMNS_CC_SETUP(&amns_handle, &error_stat);
  printf("error = %s: %s\n", error_stat.flag ? "true" : "false", error_stat.string);
  ITM_AMNS_CC_SETUP_REACTANTS(&reactants_handle, "", 0, 4);
  ITM_AMNS_CC_SET_REACTANT(reactants_handle, 1, &species1);
  ITM_AMNS_CC_SET_REACTANT(reactants_handle, 2, &species2);
  ITM_AMNS_CC_SET_REACTANT(reactants_handle, 3, &species3);
  ITM_AMNS_CC_SET_REACTANT(reactants_handle, 4, &species4);
  ITM_AMNS_CC_SETUP_TABLE(amns_handle, &xx_rx, reactants_handle, &amns_cx_handle, &error_stat);
  printf("error = %s: %s\n", error_stat.flag ? "true" : "false", error_stat.string);
  ITM_AMNS_CC_RX_0_B(amns_cx_handle, &rate, 100.0, 1e20, &error_stat);
```

[32] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/c/

```
  printf("error = %s: %s\n", error_stat.flag ? "true" : "false", error_stat.string);
  printf("rate=%e\n", rate);
  ITM_AMNS_CC_FINISH_TABLE(&amns_cx_handle, &error_stat);
  printf("error = %s: %s\n", error_stat.flag ? "true" : "false", error_stat.string);
  ITM_AMNS_CC_FINISH_REACTANTS(&reactants_handle);
  ITM_AMNS_CC_FINISH(&amns_handle, &error_stat);
  printf("error = %s: %s\n", error_stat.flag ? "true" : "false", error_stat.string);
  return 0;
}
```

3.4.1.6.3 AMNS User Interface Example C Makefile

An example Makefile demonstrating the use of the AMNS routines:

```
obj/minimal: src/minimal.c
	gcc -g -o $@ $< ${shell eval-pkg-config --cflags --libs\
	  amns-ifort itmconstants ual-amd64_intel_12}
```

Other examples can be found (here [33]):

3.4.1.7 Python AMNS User Interface

The Python interface to the AMNS subsystem is based on a standardised set of calls to the AMNS library. The details of what lies behind these calls is the responsibility of the AMNS data providers and does not need to be understood by the users of the AMNS data.

The code modules devloped for the AMNS project are hosted in gforge (29) as the project amnsproto [34].

3.4.1.7.1 AMNS User Interface: Python Calls

The Python interface creates

1. Amns (class)
   (a) finalize (method)
   (b) get_table (method)
   (c) query (method)
   (d) set (method)
2. Table (class)
   (a) data (method)
   (b) finalize (method)
   (c) query (method)
   (d) set (method)
3. Reactants (class)
   (a) add (method)
   (b) test (method)
   (c) value (method)

[33] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/
[34] https://gforge6.eufus.eu/project/amnsproto/

3.4.1.7.2 AMNS User Interface Example (Python)

An example of the use of the code can be found in the (python minimal example [35]):

```
#! /usr/bin/env python
# -*- coding: utf-8 -*-
import amns
import numpy as np

amnsdb = amns.Amns()
r = amns.Reactants()
r.add(6,1,12)
r.add(1,0,2)
r.add(6,0,12,lr=1)
r.add(1,1,2,lr=1)
table = amnsdb.get_table("CX", r)
print "table.no_of_reactants", table.no_of_reactants
print table.data(np.array([100.0]), np.array([1e20]))
amnsdb.finalize()
```

Other examples can be found (here [36]):

---

last update: 2019-01-31 by g2dpc

3.4.2 AMNS Data Providers Documentation

A prototype code for generating an AMNS database from ADAS and nuclear can be found in gforge (29) as the project amnsproto [37] in the branches/adas_db area.

3.4.2.1 Doxygen generated documentation

So far the only documentation is the doxygen documentation for the AMNS Data Provider routines [38](follow the links to Files|File List|src/amns_driver.f90).

3.4.2.2 Tips/Comments

Here are some comments about the data provider driver:

- At the time of writing, the only data provided were atomic rate coefficients derived from ADAS and nuclear cross-sections for fusion.
- The relevant code can be found in the `amnsproto` project in GFORGE in branches/amns_db/src, with the driver `amns_driver.F90`
- Compilation is done by typing `make` in `branches/amns_db`
- The code can then be run by typing `obj/amns_driver`
- The backend can be chosen by specifying one of "mdsplus", "hdf5" or "ascii" on the command line when running `obj/amns_driver` (default is "mdsplus").
- The `amns_driver` program is driven by the file `amns_driver.data` whose format is described in the file `amns_driver.format` .
- To maintain the version information, a MySQL database was used for 4.09a and 4.09b. The database is updated by amns_driver when new data is written, and the database is used by the user interface routines to determine which "run" (version) number should be used for each "shot" (species). From 4.10a onwards, the version data is stored in an AMNS CPO under shot 0, run 1.

[35] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/python/
[36] https://gforge6.eufus.eu/svn/amnsproto/tags/examples/
[37] https://gforge6.eufus.eu/project/amnsproto/
[38] https://portal.eufus.eu/documentation/ITM/doxygen/amns/amnsproto/Provider/4.10b/

The current status of this database can be queried from the Gateway by doing (note that this is only for pre-4.10a versions):

```
mysql -h solps-mdsplus.aug.ipp.mpg.de -u amnsro -p amns
amnsro
select * from versions;
quit;
```

(i.e. accessing the ”amns” database on the server ”solps-mdsplus.aug.ipp.mpg.de” as user ”amnsro”; the password is ”amnsro”).

-
-
-
-

3.4.2.3 For New AMNS Data Providers

- If you haven’t already done so, you will need to join the project ”amnsproto”, following the instructions contained here (13.8). There will be a delay until the project manager adds you to the project, and gforge updates its tables.
- You will need to create your private user database

  ```
  $ITMSCRIPTDIR/create_user_itm_dir amns 4.10b
  ```

  replacing the `4.10b` with the appropriate version.
- Check out the AMNSPROTO repository

  ```
  svn co https://gforge6.eufus.eu/svn/amnsproto
  ```

  and then follow the instructions in the top level README

---

last update: 2019-01-31 by g2dpc

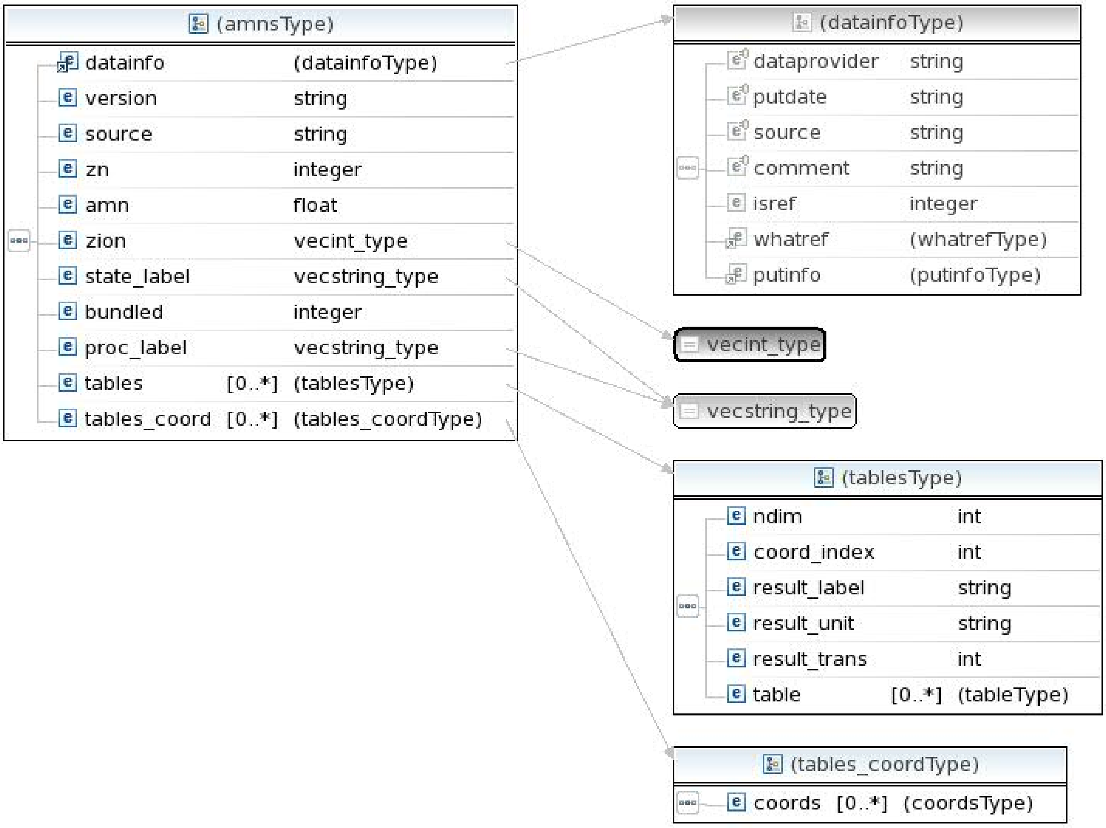
3.4.3 AMNS CPO

The current (4.08b) data structure for AMNS data in the standard tree view can be browsed here (Browse) [39]

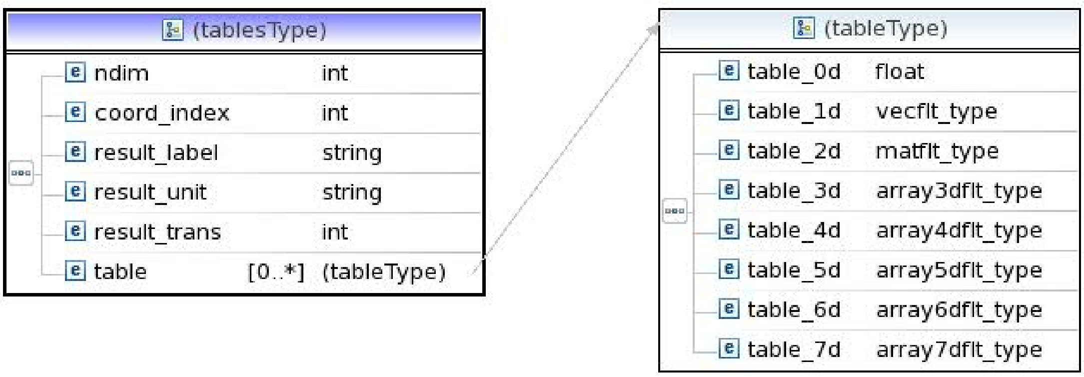
We are currently considering a revision of the AMNS data structure that makes use of arrays-of-structures (not available earlier)

At the top level we would have

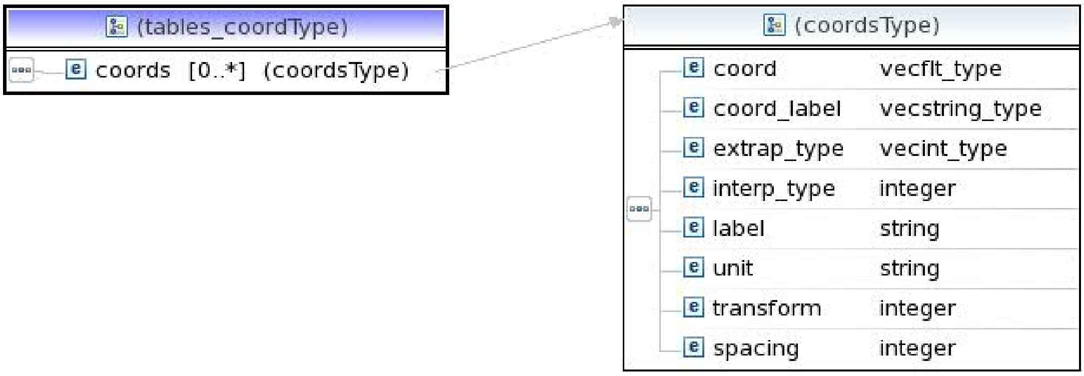
[39] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/Phase4top.html#Link00000003



with the definition of tables



and the tables of coordinates



last update: 2011-05-03 by coster

3.4.4 Significant events

-
-
-
- ??: removal of the mysql interface for 4.10a and the storing of the version data under run 0, shot 1
- 2011-05-03: allow for writing an HDF5 version of the AMNS data
- 2011-04-26: added top level README to repository
- 2011-04-26: tags/library/4.09a version of the AMNS library routines
- 2011-04-26: tags/library/4.08b version of the AMNS library routines
- 2011-04-15: 4.09a version of the AMNS write routines
- 2011-04-13: mysql access routines added (used to store version numbers)
- 2010-12-14: (hopefully) generic version of carbon_db driven by adas_amns.data
- 2009-02-20: Moved the repository to the EFDA-ITM GForge system.

last update: 2019-01-31 by g2dpc

3.5 AMNS reactions 4.10a

Based on data from USER ”amnsdata”, using the CPO ”amns” and DATAVERSION ”4.10a”.
Prepared at 2012-07-03 11:13:18 UTC

3.5.1 Release 1

Description:

['latest version']

Date:

2012-04-18 22:32:58.078 +0200

3.5.1.1 Data for H

The data is stored in SHOT=1 RUN=1
Description:

['new version']

Charge and mass:

ZN=1
AMN=-9e+40

Version:

v0

Data source:

ADAS + ...

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1				1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	2	2	SI	1	1				1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	2	2	SI	1	1				1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	2	2	SI	1	1				1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	2	2	SI	1	1				1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	2	2	SI	1	0				1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	2	2	SI	1	0				1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	2	2	SI	1	0				1: Electron Tem ture 2: Electron Den

3.5.1.2 Data for 2-H

The data is stored in SHOT=2001 RUN=1
Description:

['new version']

Charge and mass:

ZN=1
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	2	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	2	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	2	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	2	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.1.3 Data for 3-H

The data is stored in SHOT=3001 RUN=1
Description:

['new version']

Charge and mass:

ZN=1
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	2	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	2	SI	-1	1002				

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.1.4 Data for He

The data is stored in SHOT=2 RUN=1
Description:

['new version']

Charge and mass:

ZN=2
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1				1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1				1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1				1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1				1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1				1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0				1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0				1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0				1: Electron Temperature 2: Electron Dens

3.5.1.5 Data for 3-He

The data is stored in SHOT=3002 RUN=1
Description:

['new version']

Charge and mass:

ZN=2
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	2	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	2	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.1.6 Data for Li

The data is stored in SHOT=3 RUN=1
Description:

['new version']

Charge and mass:

ZN=3
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.7 Data for Be

The data is stored in SHOT=4 RUN=1
Description:

['new version']

Charge and mass:

ZN=4
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.8 Data for B

The data is stored in SHOT=5 RUN=1
Description:

['new version']

Charge and mass:

ZN=5
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.9 Data for C

The data is stored in SHOT=6 RUN=1
Description:

['new version']

Charge and mass:

ZN=6
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				

3.5.1.10 Data for N

The data is stored in SHOT=7 RUN=1
Description:

['new version']

Charge and mass:

ZN=7 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.11 Data for O

The data is stored in SHOT=8 RUN=1
Description:

['new version']

Charge and mass:

ZN=8
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.12 Data for F

The data is stored in SHOT=9 RUN=1
Description:

['new version']

Charge and mass:

ZN=9
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.13 Data for Ne

The data is stored in SHOT=10 RUN=1
Description:

['new version']

Charge and mass:

ZN=10 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.14 Data for Al

The data is stored in SHOT=13 RUN=1
Description:

['new version']

Charge and mass:

ZN=13
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.15 Data for Si

The data is stored in SHOT=14 RUN=1
Description:

['new version']

Charge and mass:

ZN=14
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.16 Data for S

The data is stored in SHOT=16 RUN=1
Description:

['new version']

Charge and mass:

ZN=16 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.17 Data for Cl

The data is stored in SHOT=17 RUN=1
Description:

['new version']

Charge and mass:

ZN=17
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.18 Data for Ar

The data is stored in SHOT=18 RUN=1
Description:

['new version']

Charge and mass:

ZN=18
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.19 Data for Cr

The data is stored in SHOT=24 RUN=1
Description:

['new version']

Charge and mass:

ZN=24
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.20 Data for Fe

The data is stored in SHOT=26 RUN=1
Description:

['new version']

Charge and mass:

ZN=26
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.21 Data for Ni

The data is stored in SHOT=28 RUN=1
Description:

['new version']

Charge and mass:

ZN=28 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.22 Data for Cu

The data is stored in SHOT=29 RUN=1
Description:

['new version']

Charge and mass:

ZN=29 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.23 Data for Ge

The data is stored in SHOT=32 RUN=1
Description:

['new version']

Charge and mass:

ZN=32
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.24 Data for Kr

The data is stored in SHOT=36 RUN=1
Description:

['new version']

Charge and mass:

ZN=36
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.25 Data for Mo

The data is stored in SHOT=42 RUN=1
Description:

['new version']

Charge and mass:

ZN=42
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.26 Data for Xe

The data is stored in SHOT=54 RUN=1
Description:

['new version']

Charge and mass:

ZN=54 AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.1.27 Data for W

The data is stored in SHOT=74 RUN=1
Description:

['new version']

Charge and mass:

ZN=74
AMN=-9e+40

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2 Release 2

Description:

['latest version']

Date:

2012-05-30 13:04:05.151 +0200

3.5.2.1 Data for H

The data is stored in SHOT=1 RUN=2
Description:

['new version']

Charge and mass:

ZN=1 AMN=1.00794

Version:

v0

Data source:

ADAS + ...

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.2 Data for 2-H

The data is stored in SHOT=2001 RUN=2
Description:

```
['new version']
```

Charge and mass:

```
ZN=1
AMN=2.0
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	2	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	2	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	2	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	2	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.2.3 Data for 3-H

The data is stored in SHOT=3001 RUN=2
Description:

```
['new version']
```

Charge and mass:

```
ZN=1
AMN=3.0
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	2	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	2	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.2.4 Data for He

The data is stored in SHOT=2 RUN=2
Description:

['new version']

Charge and mass:

ZN=2
AMN=4.002602

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1				1: Electron Tem-ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1				1: Electron Tem-ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1				1: Electron Tem-ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1				1: Electron Tem-ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1				1: Electron Tem-ture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0				1: Electron Tem-ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0				1: Electron Tem-ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0				1: Electron Tem-ture 2: Electron Dens

3.5.2.5 Data for 3-He

The data is stored in SHOT=3002 RUN=2
Description:

['new version']

Charge and mass:

ZN=2 AMN=3.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	2	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	2	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.2.6 Data for Li

The data is stored in SHOT=3 RUN=2
Description:

['new version']

Charge and mass:

ZN=3 AMN=6.941

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.7 Data for Be

The data is stored in SHOT=4 RUN=2
Description:

```
['new version']
```

Charge and mass:

```
ZN=4
AMN=9.012182
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.8 Data for B

The data is stored in SHOT=5 RUN=2
Description:

['new version']

Charge and mass:

ZN=5
AMN=10.811

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.9 Data for C

The data is stored in SHOT=6 RUN=2
Description:

['new version']

Charge and mass:

ZN=6
AMN=12.011

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				

3.5.2.10 Data for N

The data is stored in SHOT=7 RUN=2
Description:

['new version']

Charge and mass:

ZN=7 AMN=14.00674

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.11 Data for O

The data is stored in SHOT=8 RUN=2
Description:

['new version']

Charge and mass:

ZN=8
AMN=15.9994

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.12 Data for F

The data is stored in SHOT=9 RUN=2
Description:

['new version']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.13 Data for Ne

The data is stored in SHOT=10 RUN=2
Description:

['new version']

Charge and mass:

ZN=10
AMN=20.1797

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.14 Data for Al

The data is stored in SHOT=13 RUN=2
Description:

['new version']

Charge and mass:

ZN=13
AMN=26.981539

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.15 Data for Si

The data is stored in SHOT=14 RUN=2
Description:

['new version']

Charge and mass:

ZN=14
AMN=28.0855

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.16 Data for S

The data is stored in SHOT=16 RUN=2
Description:

['new version']

Charge and mass:

ZN=16 AMN=32.066

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.17 Data for Cl

The data is stored in SHOT=17 RUN=2
Description:

['new version']

Charge and mass:

ZN=17
AMN=35.4527

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.18 Data for Ar

The data is stored in SHOT=18 RUN=2
Description:

['new version']

Charge and mass:

ZN=18
AMN=39.948

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1				1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	19	2	SI	1	1				1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	19	2	SI	1	1				1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	19	2	SI	1	1				1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	19	2	SI	1	1				1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	19	2	SI	1	0				1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	19	2	SI	1	0				1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	19	2	SI	1	0				1: Electron Tem ture 2: Electron Den

3.5.2.19 Data for Cr

The data is stored in SHOT=24 RUN=2
Description:

['new version']

Charge and mass:

ZN=24
AMN=51.9961

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1				1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	25	2	SI	1	1				1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	25	2	SI	1	1				1: Electron Tem ture 2: Electron Den

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.20 Data for Fe

The data is stored in SHOT=26 RUN=2
Description:

['new version']

Charge and mass:

ZN=26
AMN=55.847

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.21 Data for Ni

The data is stored in SHOT=28 RUN=2
Description:

['new version']

Charge and mass:

ZN=28
AMN=58.6934

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.22 Data for Cu

The data is stored in SHOT=29 RUN=2
Description:

['new version']

Charge and mass:

ZN=29 AMN=63.546

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.23 Data for Ge

The data is stored in SHOT=32 RUN=2
Description:

['new version']

Charge and mass:

ZN=32
AMN=72.61

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.24 Data for Kr

The data is stored in SHOT=36 RUN=2
Description:

['new version']

Charge and mass:

ZN=36
AMN=83.8

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.25 Data for Mo

The data is stored in SHOT=42 RUN=2
Description:

```
['new version']
```

Charge and mass:

```
ZN=42
AMN=95.94
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.26 Data for Xe

The data is stored in SHOT=54 RUN=2
Description:

['new version']

Charge and mass:

ZN=54
AMN=131.29

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.2.27 Data for W

The data is stored in SHOT=74 RUN=2
Description:

['new version']

Charge and mass:

ZN=74 AMN=183.84

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1				1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0				1: Electron Tem ture 2: Electron Dens

3.5.3 Release 3

Description:

['latest version']

Date:

2012-06-04 10:11:18.817 +0200

3.5.3.1 Data for H

The data is stored in SHOT=1 RUN=3
Description:

['new version']

Charge and mass:

ZN=1 AMN=1.00794

Version:

v0

Data source:

ADAS + ...

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.2 Data for 2-H

The data is stored in SHOT=2001 RUN=3
Description:

['new version']

Charge and mass:

ZN=1
AMN=2.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	2	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	2	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	2	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	2	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.3.3 Data for 3-H

The data is stored in SHOT=3001 RUN=3
Description:

['new version']

Charge and mass:

ZN=1
AMN=3.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	2	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	2	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.3.4 Data for He

The data is stored in SHOT=2 RUN=3
Description:

['new version']

Charge and mass:

ZN=2
AMN=4.002602

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.5 Data for 3-He

The data is stored in SHOT=3002 RUN=3
Description:

```
['new version']
```

Charge and mass:

```
ZN=2
AMN=3.0
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	2	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	2	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.3.6 Data for Li

The data is stored in SHOT=3 RUN=3
Description:

```
['new version']
```

Charge and mass:

```
ZN=3
AMN=6.941
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.7 Data for Be

The data is stored in SHOT=4 RUN=3
Description:

['new version']

Charge and mass:

ZN=4
AMN=9.012182

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.8 Data for B

The data is stored in SHOT=5 RUN=3
Description:

['new version']

Charge and mass:

ZN=5 AMN=10.811

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.9 Data for C

The data is stored in SHOT=6 RUN=3
Description:

['new version']

Charge and mass:

ZN=6
AMN=12.011

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				

3.5.3.10 Data for N

The data is stored in SHOT=7 RUN=3
Description:

['new version']

Charge and mass:

ZN=7
AMN=14.00674

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.11 Data for O

The data is stored in SHOT=8 RUN=3
Description:

['new version']

Charge and mass:

ZN=8
AMN=15.9994

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.12 Data for F

The data is stored in SHOT=9 RUN=3
Description:

['new version']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.13 Data for Ne

The data is stored in SHOT=10 RUN=3
Description:

['new version']

Charge and mass:

ZN=10
AMN=20.1797

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.14 Data for Al

The data is stored in SHOT=13 RUN=3
Description:

['new version']

Charge and mass:

ZN=13 AMN=26.981539

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.15 Data for Si

The data is stored in SHOT=14 RUN=3
Description:

['new version']

Charge and mass:

ZN=14
AMN=28.0855

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.16 Data for S

The data is stored in SHOT=16 RUN=3
Description:

['new version']

Charge and mass:

ZN=16 AMN=32.066

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.17 Data for Cl

The data is stored in SHOT=17 RUN=3
Description:

['new version']

Charge and mass:

ZN=17
AMN=35.4527

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.18 Data for Ar

The data is stored in SHOT=18 RUN=3
Description:

['new version']

Charge and mass:

ZN=18
AMN=39.948

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.19 Data for Cr

The data is stored in SHOT=24 RUN=3
Description:

['new version']

Charge and mass:

ZN=24
AMN=51.9961

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.20 Data for Fe

The data is stored in SHOT=26 RUN=3
Description:

['new version']

Charge and mass:

ZN=26
AMN=55.847

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.21 Data for Ni

The data is stored in SHOT=28 RUN=3
Description:

['new version']

Charge and mass:

ZN=28
AMN=58.6934

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.22 Data for Cu

The data is stored in SHOT=29 RUN=3
Description:

['new version']

Charge and mass:

ZN=29
AMN=63.546

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.23 Data for Ge

The data is stored in SHOT=32 RUN=3
Description:

['new version']

Charge and mass:

ZN=32
AMN=72.61

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.24 Data for Kr

The data is stored in SHOT=36 RUN=3
Description:

['new version']

Charge and mass:

ZN=36
AMN=83.8

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.25 Data for Mo

The data is stored in SHOT=42 RUN=3
Description:

['new version']

Charge and mass:

ZN=42
AMN=95.94

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.26 Data for Xe

The data is stored in SHOT=54 RUN=3
Description:

['new version']

Charge and mass:

ZN=54
AMN=131.29

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Dens

3.5.3.27 Data for W

The data is stored in SHOT=74 RUN=3
Description:

['new version']

Charge and mass:

ZN=74
AMN=183.84

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens

3.5.4 Release 4

Description:

['latest version']

Date:

2012-06-05 12:19:53.773 +0200

3.5.4.1 Data for H

The data is stored in SHOT=1 RUN=4
Description:

['new version']

Charge and mass:

ZN=1
AMN=1.00794

Version:

v0

Data source:

ADAS + ...

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.2 Data for 2-H

The data is stored in SHOT=2001 RUN=4
Description:

['new version']

Charge and mass:

ZN=1
AMN=2.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	2	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	2	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	2	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	2	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.4.3 Data for 3-H

The data is stored in SHOT=3001 RUN=4
Description:

['new version']

Charge and mass:

ZN=1
AMN=3.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	2	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	2	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.4.4 Data for He

The data is stored in SHOT=2 RUN=4
Description:

['new version']

Charge and mass:

ZN=2
AMN=4.002602

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.5 Data for 3-He

The data is stored in SHOT=3002 RUN=4
Description:

['new version']

Charge and mass:

ZN=2
AMN=3.0

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	2	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	2	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.4.6 Data for Li

The data is stored in SHOT=3 RUN=4
Description:

['new version']

Charge and mass:

ZN=3
AMN=6.941

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.7 Data for Be

The data is stored in SHOT=4 RUN=4
Description:

['new version']

Charge and mass:

ZN=4 AMN=9.012182

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.8 Data for B

The data is stored in SHOT=5 RUN=4
Description:

```
['new version']
```

Charge and mass:

```
ZN=5
AMN=10.811
```

Version:

```
```

Data source:

```
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Den

3.5.4.9 Data for C

The data is stored in SHOT=6 RUN=4
Description:

['new version']

Charge and mass:

ZN=6
AMN=12.011

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Den

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.10 Data for N

The data is stored in SHOT=7 RUN=4
Description:

['new version']

Charge and mass:

ZN=7
AMN=14.00674

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.11 Data for O

The data is stored in SHOT=8 RUN=4
Description:

['new version']

Charge and mass:

ZN=8
AMN=15.9994

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.12 Data for F

The data is stored in SHOT=9 RUN=4
Description:

['new version']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.13 Data for Ne

The data is stored in SHOT=10 RUN=4
Description:

['new version']

Charge and mass:

ZN=10
AMN=20.1797

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.14 Data for Al

The data is stored in SHOT=13 RUN=4
Description:

['new version']

Charge and mass:

ZN=13
AMN=26.981539

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.15 Data for Si

The data is stored in SHOT=14 RUN=4
Description:

['new version']

Charge and mass:

ZN=14
AMN=28.0855

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.16 Data for S

The data is stored in SHOT=16 RUN=4
Description:

['new version']

Charge and mass:

ZN=16 AMN=32.066

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.17 Data for Cl

The data is stored in SHOT=17 RUN=4
Description:

['new version']

Charge and mass:

ZN=17
AMN=35.4527

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.18 Data for Ar

The data is stored in SHOT=18 RUN=4
Description:

['new version']

Charge and mass:

ZN=18
AMN=39.948

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.4.19 Data for Cr

The data is stored in SHOT=24 RUN=4
Description:

['new version']

Charge and mass:

ZN=24 AMN=51.9961

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.20 Data for Fe

The data is stored in SHOT=26 RUN=4
Description:

['new version']

Charge and mass:

ZN=26 AMN=55.847

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.21 Data for Ni

The data is stored in SHOT=28 RUN=4
Description:

['new version']

Charge and mass:

ZN=28
AMN=58.6934

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.22 Data for Cu

The data is stored in SHOT=29 RUN=4
Description:

['new version']

Charge and mass:

ZN=29
AMN=63.546

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.23 Data for Ge

The data is stored in SHOT=32 RUN=4
Description:

['new version']

Charge and mass:

ZN=32
AMN=72.61

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.24 Data for Kr

The data is stored in SHOT=36 RUN=4
Description:

```
['new version']
```

Charge and mass:

```
ZN=36
AMN=83.8
```

Version:

```

```

Data source:

```

```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.25 Data for Mo

The data is stored in SHOT=42 RUN=4
Description:

['new version']

Charge and mass:

ZN=42
AMN=95.94

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.26 Data for Xe

The data is stored in SHOT=54 RUN=4
Description:

['new version']

Charge and mass:

ZN=54 AMN=131.29

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Dens

3.5.4.27 Data for W

The data is stored in SHOT=74 RUN=4
Description:

['new version']

Charge and mass:

ZN=74
AMN=183.84

Version:

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5 Release 5

Description:

['AMNS data created by version 203 of the amns_driver system']

Date:

2012-06-05 18:15:08.155 +0200

3.5.5.1 Data for H

The data is stored in SHOT=1 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.2 Data for 2-H

The data is stored in SHOT=2001 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	2	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	2	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	2	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	2	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.5.3 Data for 3-H

The data is stored in SHOT=3001 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	2	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	2	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.5.4 Data for He

The data is stored in SHOT=2 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.5 Data for 3-He

The data is stored in SHOT=3002 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	2	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	2	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.5.6 Data for Li

The data is stored in SHOT=3 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.7 Data for Be

The data is stored in SHOT=4 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Den
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.8 Data for B

The data is stored in SHOT=5 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Den

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.9 Data for C

The data is stored in SHOT=6 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.10 Data for N

The data is stored in SHOT=7 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.11 Data for O

The data is stored in SHOT=8 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.12 Data for F

The data is stored in SHOT=9 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.13 Data for Ne

The data is stored in SHOT=10 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.14 Data for Al

The data is stored in SHOT=13 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.15 Data for Si

The data is stored in SHOT=14 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.16 Data for S

The data is stored in SHOT=16 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.17 Data for Cl

The data is stored in SHOT=17 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.18 Data for Ar

The data is stored in SHOT=18 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.5.19 Data for Cr

The data is stored in SHOT=24 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.20 Data for Fe

The data is stored in SHOT=26 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Den

3.5.5.21 Data for Ni

The data is stored in SHOT=28 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.22 Data for Cu

The data is stored in SHOT=29 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.23 Data for Ge

The data is stored in SHOT=32 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.24 Data for Kr

The data is stored in SHOT=36 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.25 Data for Mo

The data is stored in SHOT=42 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.26 Data for Xe

The data is stored in SHOT=54 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Dens

3.5.5.27 Data for W

The data is stored in SHOT=74 RUN=5
Description:

['AMNS data created by version 203 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

203

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6 Release 6

Description:

['AMNS data created by version 239 of the amns_driver system']

Date:

2012-06-27 15:30:09.501 +0200

3.5.6.1 Data for H

The data is stored in SHOT=1 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.2 Data for 2-H

The data is stored in SHOT=2001 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.6.3 Data for 3-H

The data is stored in SHOT=3001 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.6.4 Data for He

The data is stored in SHOT=2 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.5 Data for 3-He

The data is stored in SHOT=3002 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.6.6 Data for Li

The data is stored in SHOT=3 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.7 Data for Be

The data is stored in SHOT=4 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Den
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.8 Data for B

The data is stored in SHOT=5 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.9 Data for C

The data is stored in SHOT=6 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.10 Data for N

The data is stored in SHOT=7 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.11 Data for O

The data is stored in SHOT=8 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.12 Data for F

The data is stored in SHOT=9 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.13 Data for Ne

The data is stored in SHOT=10 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.14 Data for Al

The data is stored in SHOT=13 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.15 Data for Si

The data is stored in SHOT=14 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.16 Data for S

The data is stored in SHOT=16 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.17 Data for Cl

The data is stored in SHOT=17 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.18 Data for Ar

The data is stored in SHOT=18 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.6.19 Data for Cr

The data is stored in SHOT=24 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=24 AMN=51.9961

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.20 Data for Fe

The data is stored in SHOT=26 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.21 Data for Ni

The data is stored in SHOT=28 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.22 Data for Cu

The data is stored in SHOT=29 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.23 Data for Ge

The data is stored in SHOT=32 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.24 Data for Kr

The data is stored in SHOT=36 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Temperature 2: Electron Dens

3.5.6.25 Data for Mo

The data is stored in SHOT=42 RUN=6
Description:

> ['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

> ZN=42
> AMN=95.94

Version:

> 239

Data source:

> Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.26 Data for Xe

The data is stored in SHOT=54 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Dens

3.5.6.27 Data for W

The data is stored in SHOT=74 RUN=6
Description:

['AMNS data created by version 239 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

239

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7 Release 7

Description:

['AMNS data created by version 243:247 of the amns_driver system']

Date:

2012-06-28 18:09:14.140 +0200

3.5.7.1 Data for H

The data is stored in SHOT=1 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.2 Data for 2-H

The data is stored in SHOT=2001 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	SI	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.7.3 Data for 3-H

The data is stored in SHOT=3001 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.7.4 Data for He

The data is stored in SHOT=2 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Temture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.5 Data for 3-He

The data is stored in SHOT=3002 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.7.6 Data for Li

The data is stored in SHOT=3 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=3 AMN=6.941

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.7 Data for Be

The data is stored in SHOT=4 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Den
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.8 Data for B

The data is stored in SHOT=5 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.9 Data for C

The data is stored in SHOT=6 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=6 AMN=12.011

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.10 Data for N

The data is stored in SHOT=7 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.11 Data for O

The data is stored in SHOT=8 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Temperature 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.12 Data for F

The data is stored in SHOT=9 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.13 Data for Ne

The data is stored in SHOT=10 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.14 Data for Al

The data is stored in SHOT=13 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.15 Data for Si

The data is stored in SHOT=14 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.16 Data for S

The data is stored in SHOT=16 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.17 Data for Cl

The data is stored in SHOT=17 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.18 Data for Ar

The data is stored in SHOT=18 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.7.19 Data for Cr

The data is stored in SHOT=24 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.20 Data for Fe

The data is stored in SHOT=26 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.21 Data for Ni

The data is stored in SHOT=28 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Temture 2: Electron Dens

3.5.7.22 Data for Cu

The data is stored in SHOT=29 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Temture 2: Electron Dens

3.5.7.23 Data for Ge

The data is stored in SHOT=32 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.24 Data for Kr

The data is stored in SHOT=36 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.25 Data for Mo

The data is stored in SHOT=42 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.7.26 Data for Xe

The data is stored in SHOT=54 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Temture 2: Electron Dens

3.5.7.27 Data for W

The data is stored in SHOT=74 RUN=7
Description:

['AMNS data created by version 243:247 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

243:247

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Temture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Temperature 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8 Release 8

Description:

['AMNS data created by version 248 of the amns_driver system']

Date:

2012-06-28 18:30:49.376 +0200

3.5.8.1 Data for H

The data is stored in SHOT=1 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Temture 2: Electron Den
2	EI	Electron Impact Ionisation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Temture 2: Electron Den
3	CX	CX recombination coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Temture 2: Electron Den
4	BR	Recomb/brems power coeffts	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Temture 2: Electron Den
5	LR	Line radiation	2	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Temture 2: Electron Den
6	ZE	Effective Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Temture 2: Electron Den
7	ZE2	Effective Square Charge	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Temture 2: Electron Den
8	EIP	Effective Ionisation Potential	2	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Temture 2: Electron Den
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.2 Data for 2-H

The data is stored in SHOT=2001 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	SI	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	SI	-1	1001				

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	SI	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	SI	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	SI	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.8.3 Data for 3-H

The data is stored in SHOT=3001 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	SI	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	SI	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.8.4 Data for He

The data is stored in SHOT=2 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.5 Data for 3-He

The data is stored in SHOT=3002 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	SI	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	SI	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	SI	1	1				1: Temperature 2: Particle energ

3.5.8.6 Data for Li

The data is stored in SHOT=3 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.7 Data for Be

The data is stored in SHOT=4 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.8 Data for B

The data is stored in SHOT=5 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.9 Data for C

The data is stored in SHOT=6 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.10 Data for N

The data is stored in SHOT=7 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.11 Data for O

The data is stored in SHOT=8 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.12 Data for F

The data is stored in SHOT=9 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.13 Data for Ne

The data is stored in SHOT=10 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	11	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.14 Data for Al

The data is stored in SHOT=13 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.15 Data for Si

The data is stored in SHOT=14 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.16 Data for S

The data is stored in SHOT=16 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.17 Data for Cl

The data is stored in SHOT=17 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.18 Data for Ar

The data is stored in SHOT=18 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.8.19 Data for Cr

The data is stored in SHOT=24 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.20 Data for Fe

The data is stored in SHOT=26 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.21 Data for Ni

The data is stored in SHOT=28 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.22 Data for Cu

The data is stored in SHOT=29 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.23 Data for Ge

The data is stored in SHOT=32 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.24 Data for Kr

The data is stored in SHOT=36 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	SI	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.25 Data for Mo

The data is stored in SHOT=42 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.8.26 Data for Xe

The data is stored in SHOT=54 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	55	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Temture 2: Electron Dens

3.5.8.27 Data for W

The data is stored in SHOT=74 RUN=8
Description:

['AMNS data created by version 248 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

248

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Temture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	SI	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	SI	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9 Release 9

Description:

['AMNS data created by version 251 of the amns_driver system']

Date:

2012-06-29 12:41:33.129 +0200

3.5.9.1 Data for H

The data is stored in SHOT=1 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	2	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	2	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Temture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.2 Data for 2-H

The data is stored in SHOT=2001 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001				

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3}.s^{-1 1}		1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3}.s^{-1 1}		1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^3/s	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^3/s	1	1				1: Temperature 2: Particle energ

3.5.9.3 Data for 3-H

The data is stored in SHOT=3001 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3}.s^{-1 1}		1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^3/s	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^3/s	1	1				1: Temperature 2: Particle energ

3.5.9.4 Data for He

The data is stored in SHOT=2 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.5 Data for 3-He

The data is stored in SHOT=3002 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3}.s^{-1}	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^3/s	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^3/s	1	1				1: Temperature 2: Particle energ

3.5.9.6 Data for Li

The data is stored in SHOT=3 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.7 Data for Be

The data is stored in SHOT=4 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	5	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.8 Data for B

The data is stored in SHOT=5 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.9 Data for C

The data is stored in SHOT=6 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.10 Data for N

The data is stored in SHOT=7 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=7 AMN=14.00674

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	8	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	8	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	8	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Temperature 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.11 Data for O

The data is stored in SHOT=8 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	9	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	9	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	9	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Temperature 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.12 Data for F

The data is stored in SHOT=9 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	10	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	10	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	10	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	10	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Temperature 2: Electron Dens

3.5.9.13 Data for Ne

The data is stored in SHOT=10 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	11	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	11	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.14 Data for Al

The data is stored in SHOT=13 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
6	ZE	Effective Charge	14	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.15 Data for Si

The data is stored in SHOT=14 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.16 Data for S

The data is stored in SHOT=16 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.17 Data for Cl

The data is stored in SHOT=17 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.18 Data for Ar

The data is stored in SHOT=18 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	19	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	19	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	19	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Temperature 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.9.19 Data for Cr

The data is stored in SHOT=24 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.20 Data for Fe

The data is stored in SHOT=26 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	27	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.21 Data for Ni

The data is stored in SHOT=28 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Temture 2: Electron Dens

3.5.9.22 Data for Cu

The data is stored in SHOT=29 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	30	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	30	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Temture 2: Electron Dens

3.5.9.23 Data for Ge

The data is stored in SHOT=32 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	33	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	33	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	33	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Temperature 2: Electron Dens

3.5.9.24 Data for Kr

The data is stored in SHOT=36 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	m^{3}.s^{-1}		1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	W.m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	W.m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.9.25 Data for Mo

The data is stored in SHOT=42 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	43	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	43	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	43	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Temperature 2: Electron Dens

3.5.9.26 Data for Xe

The data is stored in SHOT=54 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	55	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	55	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Temperature 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Temperature 2: Electron Dens
5	LR	Line radiation	55	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Temperature 2: Electron Dens
6	ZE	Effective Charge	55	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Temperature 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Temperature 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Temperature 2: Electron Dens

3.5.9.27 Data for W

The data is stored in SHOT=74 RUN=9
Description:

['AMNS data created by version 251 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

251

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Temperature 2: Electron Dens
2	EI	Electron Impact Ionisation	75	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Temperature 2: Electron Dens
3	CX	CX recombination coeffts	75	2	m^{3}.s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Temperature 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	75	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	W.m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^2	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^2.sr^-1	10	1				1: Angle 2: Energy

3.5.10 Release 10

Description:

['AMNS data created by version 252 of the amns_driver system']

Date:

2012-06-29 13:09:29.758 +0200

3.5.10.1 Data for H

The data is stored in SHOT=1 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.2 Data for 2-H

The data is stored in SHOT=2001 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001				

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.10.3 Data for 3-H

The data is stored in SHOT=3001 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.10.4 Data for He

The data is stored in SHOT=2 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.5 Data for 3-He

The data is stored in SHOT=3002 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.10.6 Data for Li

The data is stored in SHOT=3 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.7 Data for Be

The data is stored in SHOT=4 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.8 Data for B

The data is stored in SHOT=5 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.9 Data for C

The data is stored in SHOT=6 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.10 Data for N

The data is stored in SHOT=7 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.11 Data for O

The data is stored in SHOT=8 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.12 Data for F

The data is stored in SHOT=9 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.13 Data for Ne

The data is stored in SHOT=10 RUN=10
Description:

```
['AMNS data created by version 252 of the amns_driver system']
```

Charge and mass:

```
ZN=10
AMN=20.1797
```

Version:

```
252
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.14 Data for Al

The data is stored in SHOT=13 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=13 AMN=26.981539

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.15 Data for Si

The data is stored in SHOT=14 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	15	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.16 Data for S

The data is stored in SHOT=16 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	17	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.17 Data for Cl

The data is stored in SHOT=17 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=17 AMN=35.4527

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.18 Data for Ar

The data is stored in SHOT=18 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.10.19 Data for Cr

The data is stored in SHOT=24 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.20 Data for Fe

The data is stored in SHOT=26 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.21 Data for Ni

The data is stored in SHOT=28 RUN=10
Description:

```
['AMNS data created by version 252 of the amns_driver system']
```

Charge and mass:

```
ZN=28
AMN=58.6934
```

Version:

```
252
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.22 Data for Cu

The data is stored in SHOT=29 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	30	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.23 Data for Ge

The data is stored in SHOT=32 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.24 Data for Kr

The data is stored in SHOT=36 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.25 Data for Mo

The data is stored in SHOT=42 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.10.26 Data for Xe

The data is stored in SHOT=54 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	55	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Den

3.5.10.27 Data for W

The data is stored in SHOT=74 RUN=10
Description:

['AMNS data created by version 252 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

252

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Den

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	75	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11 Release 11 [DEFAULT]

Description:

['AMNS data created by version 252:255 of the amns_driver system']

Date:

2012-07-03 13:07:04.948 +0200

3.5.11.1 Data for H

The data is stored in SHOT=1 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_h.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_h.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_h.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_h.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	2	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11.2 Data for 2-H

The data is stored in SHOT=2001 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001				
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001				
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002				
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002				
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.11.3 Data for 3-H

The data is stored in SHOT=3001 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001				
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002				
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.11.4 Data for He

The data is stored in SHOT=2 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

```
ZN=2
AMN=4.002602
```

Version:

```
252:255
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	3	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy
11	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf		http://epsppd.epfl.ch/Warsaw/p	

3.5.11.5 Data for 3-He

The data is stored in SHOT=3002 RUN=11
Description:

```
['AMNS data created by version 252:255 of the amns_driver system']
```

Charge and mass:

ZN=2
AMN=3.0

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001				
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002				
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1				1: Temperature 2: Particle energ

3.5.11.6 Data for Li

The data is stored in SHOT=3 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_li.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_li.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_li.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_li.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	4	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_li.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_li.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_li.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.7 Data for Be

The data is stored in SHOT=4 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=4 AMN=9.012182

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_be.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_be.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_be.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_be.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	5	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_be.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_be.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_be.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11.8 Data for B

The data is stored in SHOT=5 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	6	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.9 Data for C

The data is stored in SHOT=6 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	7	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat			1: Electron Tem ture 2: Electron Dens
9	YPHYS	Physical sputtering yield	1	1	NA	-1	0				
10	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
11	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11.10 Data for N

The data is stored in SHOT=7 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_n.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_n.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_n.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_n.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	8	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_n.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_n.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_n.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11.11 Data for O

The data is stored in SHOT=8 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_o.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_o.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_o.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_o.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	9	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_o.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_o.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_o.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.5.11.12 Data for F

The data is stored in SHOT=9 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	10	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.13 Data for Ne

The data is stored in SHOT=10 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ne.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ne.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ne.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ne.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	11	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ne.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ne.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ne.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy
11	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf		http://epsppd.epfl.ch/Warsaw/p	

3.5.11.14 Data for Al

The data is stored in SHOT=13 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	14	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.15 Data for Si

The data is stored in SHOT=14 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	15	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat			1: Electron Tem ture 2: Electron Den

3.5.11.16 Data for S

The data is stored in SHOT=16 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	17	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat			1: Electron Tem ture 2: Electron Den

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.17 Data for Cl

The data is stored in SHOT=17 RUN=11
Description:

```
['AMNS data created by version 252:255 of the amns_driver system']
```

Charge and mass:

```
ZN=17
AMN=35.4527
```

Version:

```
252:255
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	18	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.18 Data for Ar

The data is stored in SHOT=18 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	19	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat			1: Electron Tem ture 2: Electron Dens
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy
11	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf		http://epsppd.epfl.ch/Warsaw/p	

3.5.11.19 Data for Cr

The data is stored in SHOT=24 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	25	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.20 Data for Fe

The data is stored in SHOT=26 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	27	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.21 Data for Ni

The data is stored in SHOT=28 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	29	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.22 Data for Cu

The data is stored in SHOT=29 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat			1: Electron Temture 2: Electron Dens
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat			1: Electron Temture 2: Electron Dens
6	ZE	Effective Charge	30	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat			1: Electron Temture 2: Electron Dens
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat			1: Electron Temture 2: Electron Dens
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat			1: Electron Temture 2: Electron Dens

3.5.11.23 Data for Ge

The data is stored in SHOT=32 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat			1: Electron Temture 2: Electron Dens
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat			1: Electron Temture 2: Electron Dens
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat			1: Electron Temture 2: Electron Dens
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat			1: Electron Temture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	33	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.24 Data for Kr

The data is stored in SHOT=36 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=36 AMN=83.8

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	37	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat			1: Electron Tem ture 2: Electron Dens

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat			1: Electron Tem ture 2: Electron Dens
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf		http://epsppd.epfl.ch/Warsaw/p	

3.5.11.25 Data for Mo

The data is stored in SHOT=42 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	43	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat			1: Electron Tem ture 2: Electron Dens

3.5.11.26 Data for Xe

The data is stored in SHOT=54 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

ZN=54 AMN=131.29

Version:

252:255

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat			1: Electron Tem ture 2: Electron Dens
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat			1: Electron Tem ture 2: Electron Dens
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat			1: Electron Tem ture 2: Electron Dens
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat			1: Electron Tem ture 2: Electron Dens
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat			1: Electron Tem ture 2: Electron Dens
6	ZE	Effective Charge	55	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat			1: Electron Tem ture 2: Electron Dens
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat			1: Electron Tem ture 2: Electron Dens
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat			1: Electron Tem ture 2: Electron Dens
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / ep-sppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf		http://epsppd.epfl.ch/Warsaw/p	

3.5.11.27 Data for W

The data is stored in SHOT=74 RUN=11
Description:

['AMNS data created by version 252:255 of the amns_driver system']

Charge and mass:

```
ZN=74
AMN=183.84
```

Version:

```
252:255
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE	PROVIDER	CITATION	COORD LABE
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat			1: Electron Tem ture 2: Electron Den
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat			1: Electron Tem ture 2: Electron Den
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat			1: Electron Tem ture 2: Electron Den
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat			1: Electron Tem ture 2: Electron Den
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat			1: Electron Tem ture 2: Electron Den
6	ZE	Effective Charge	75	2	e	1	0	../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat			1: Electron Tem ture 2: Electron Den
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat			1: Electron Tem ture 2: Electron Den
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat			1: Electron Tem ture 2: Electron Den
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1				1: Energy
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1				1: Angle 2: Energy

3.6 AMNS reactions 4.10b (user public)

Based on data from USER ”public”, using the CPO ”amns” and DATAVERSION ”4.10b”.
Prepared at 2020-12-17 17:25:26 UTC

3.6.1 Release 1

Description:

['AMNS data created by version 399 of the amns_driver system']

Date:

2014-09-15 10:32:18.643 +0200

3.6.1.1 Data for H

The data is stored in SHOT=1 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.1.2 Data for 2-H

The data is stored in SHOT=2001 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → T + H
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → He + n

3.6.1.3 Data for 3-H

The data is stored in SHOT=3001 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			T + D → He + n
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			T + D → He + n
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	T + D → He + n
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	T + D → He + n

3.6.1.4 Data for He

The data is stored in SHOT=2 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\vert D\vert T^{+0} \rightarrow He^{z-1} + H\vert D\vert T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.1.5 Data for 3-He

The data is stored in SHOT=3002 RUN=1
Description:

> ['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

> ZN=2
> AMN=3.0

Version:

> 399

Data source:

> Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$He + D \rightarrow He + H$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$He + D \rightarrow He + H$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow He + H$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow He + H$

3.6.1.6 Data for Li

The data is stored in SHOT=3 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.6.1.7 Data for Be

The data is stored in SHOT=4 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_3000.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_15.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
36	prj_h _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_t _AE0_15.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_t _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t _AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be _AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be _AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be _AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be _AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be _AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be _AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be _AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be _AE0_3000.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
86	prj_d _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d _AE0_ 14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
111	prj_h_AE0_40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h_AE0_50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h_AE0_70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h_AE0_100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h_AE0_140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h_AE0_200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h_AE0_300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h_AE0_500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t_AE0_10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t_AE0_11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t_AE0_12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t_AE0_13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t_AE0_15.000	Reflection yield	1	1	NA	-1	0			
125	prj_t_AE0_17.000	Reflection yield	1	1	NA	-1	0			
126	prj_t_AE0_20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t_AE0_25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t_AE0_30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t_AE0_50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t_AE0_100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t_AE0_200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t_AE0_300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t_AE0_500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t_AE0_1000.000	Reflection yield	1	1	NA	-1	0			

3.6.1.8 Data for B

The data is stored in SHOT=5 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=5 AMN=10.811

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	prj_b_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.6.1.9 Data for C

The data is stored in SHOT=6 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\mid D\mid T^{+0} \rightarrow C^{z-1} + H\mid D\mid T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
30	prj_4he_AE0_27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
40	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_200.000	Reflection yield	1	1	NA	-1	0			
53	prj_c _AE0_300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c _AE0_500.000	Reflection yield	1	1	NA	-1	0			
55	prj_c _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d _AE0_10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d _AE0_20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d _AE0_30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d _AE0_33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d _AE0_40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d _AE0_50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d _AE0_70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d _AE0_100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d _AE0_140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
65	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d _AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d _AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.6.1.10 Data for N

The data is stored in SHOT=7 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.1.11 Data for O

The data is stored in SHOT=8 RUN=1
Description:

```
['AMNS data created by version 399 of the amns_driver system']
```

Charge and mass:

```
ZN=8
AMN=15.9994
```

Version:

```
399
```

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.1.12 Data for F

The data is stored in SHOT=9 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.6.1.13 Data for Ne

The data is stored in SHOT=10 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \to Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \to Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \to Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.1.14 Data for Al

The data is stored in SHOT=13 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \to Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

3.6.1.15 Data for Si

The data is stored in SHOT=14 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \to Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

3.6.1.16 Data for S

The data is stored in SHOT=16 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \to S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \to S^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \to S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$

3.6.1.17 Data for Cl

The data is stored in SHOT=17 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.1.18 Data for Ar

The data is stored in SHOT=18 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / ep-sppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.1.19 Data for Cr

The data is stored in SHOT=24 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.6.1.20 Data for Fe

The data is stored in SHOT=26 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.1.21 Data for Ni

The data is stored in SHOT=28 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.6.1.22 Data for Cu

The data is stored in SHOT=29 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.1.23 Data for Ge

The data is stored in SHOT=32 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.6.1.24 Data for Kr

The data is stored in SHOT=36 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.1.25 Data for Mo

The data is stored in SHOT=42 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.6.1.26 Data for Xe

The data is stored in SHOT=54 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.1.27 Data for W

The data is stored in SHOT=74 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \rightarrow w^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
28	prj_d _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_ 2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 550.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
53	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_130.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
78	prj_ar _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_ 35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
83	prj_ar _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar _AE0_ 1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar _AE0_ 1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
103	prj_d_AE0_270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d_AE0_300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d_AE0_350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d_AE0_400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d_AE0_500.000	Reflection yield	1	1	NA	-1	0			
108	prj_d_AE0_600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d_AE0_700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h_AE0_10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h_AE0_20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h_AE0_50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h_AE0_100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h_AE0_200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h_AE0_300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h_AE0_500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h_AE0_550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h_AE0_600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h_AE0_700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h_AE0_800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h_AE0_900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h_AE0_4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h_AE0_13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h_AE0_26667.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
128	prj_h_AE0_40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h_AE0_80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr_AE0_42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n_AE0_10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n_AE0_20.000	Reflection yield	1	1	NA	-1	0			
133	prj_n_AE0_40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n_AE0_48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n_AE0_50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n_AE0_52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n_AE0_55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n_AE0_60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n_AE0_70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n_AE0_80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n_AE0_90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n_AE0_100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n_AE0_120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n_AE0_140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n_AE0_200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n_AE0_300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n_AE0_500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne_AE0_10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne_AE0_20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne_AE0_30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne_AE0_40.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
183	prj_w _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w _AE0_ 2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe _AE0_ 9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			

3.6.2 Release 2

Description:

['AMNS data created by version 437 of the amns_driver system']

Date:

2014-12-17 13:14:57.113 +0100

3.6.2.1 Data for H

The data is stored in SHOT=1 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

437

Data source:

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.2.2 Data for 2-H

The data is stored in SHOT=2001 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.6.2.3 Data for 3-H

The data is stored in SHOT=3001 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{T}+\mathrm{D}\rightarrow\mathrm{He}+\mathrm{n}$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T}+\mathrm{D}\rightarrow\mathrm{He}+\mathrm{n}$
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T}+\mathrm{D}\rightarrow\mathrm{He}+\mathrm{n}$

3.6.2.4 Data for He

The data is stored in SHOT=2 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}+\mathrm{e}^{-1}\rightarrow\mathrm{He}^{z-1}+\mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}+\mathrm{e}^{-1}\rightarrow\mathrm{He}^{z+1}+\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}+\mathrm{H\vert D\vert T}^{+0}\rightarrow\mathrm{He}^{z-1}+\mathrm{H\vert D\vert T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}\rightarrow\mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}\rightarrow\mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0}\rightarrow\mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.2.5 Data for 3-He

The data is stored in SHOT=3002 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$He + D \to He + H$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$He + D \to He + H$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$

3.6.2.6 Data for Li

The data is stored in SHOT=3 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.6.2.7 Data for Be

The data is stored in SHOT=4 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	prj_ar_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_ 11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_ 13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_ 50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_ 3000.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
25	prj_d _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_ 140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_h _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_ 100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
50	prj_t _AE0_15.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_t _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t _AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be _AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be _AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be _AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be _AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be _AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be _AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be _AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be _AE0_3000.000	Reflection yield	1	1	NA	-1	0			
86	prj_d _AE0_11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d _AE0_12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d _AE0_13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d _AE0_14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d _AE0_15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d _AE0_17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d _AE0_20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d _AE0_25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d _AE0_30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d _AE0_40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d _AE0_50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
100	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
125	prj_t _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
126	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.6.2.8 Data for B

The data is stored in SHOT=5 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	prj_b _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.6.2.9 Data for C

The data is stored in SHOT=6 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
30	prj_4he_AE0_27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
40	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_200.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
53	prj_c_AE0_300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c_AE0_500.000	Reflection yield	1	1	NA	-1	0			
55	prj_c_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d_AE0_10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d_AE0_20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d_AE0_30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d_AE0_33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d_AE0_40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d_AE0_50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d_AE0_70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d_AE0_100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d_AE0_140.000	Reflection yield	1	1	NA	-1	0			
65	prj_d_AE0_200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d_AE0_300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d_AE0_350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d_AE0_400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d_AE0_500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h_AE0_10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h_AE0_20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h_AE0_40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h_AE0_50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h_AE0_70.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.6.2.10 Data for N

The data is stored in SHOT=7 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.2.11 Data for O

The data is stored in SHOT=8 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.2.12 Data for F

The data is stored in SHOT=9 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$

3.6.2.13 Data for Ne

The data is stored in SHOT=10 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \to Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \to Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \to Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.2.14 Data for Al

The data is stored in SHOT=13 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.6.2.15 Data for Si

The data is stored in SHOT=14 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.6.2.16 Data for S

The data is stored in SHOT=16 RUN=2
Description:

```
['AMNS data created by version 437 of the amns_driver system']
```

Charge and mass:

```
ZN=16
AMN=32.066
```

Version:

```
437
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\vert D\vert T^{+0} \rightarrow s^{z-1} + H\vert D\vert T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$

3.6.2.17 Data for Cl

The data is stored in SHOT=17 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.2.18 Data for Ar

The data is stored in SHOT=18 RUN=2
Description:

```
['AMNS data created by version 437 of the amns_driver system']
```

Charge and mass:

```
ZN=18
AMN=39.948
```

Version:

```
437
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Ar}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Ar}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{Ar}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} \rightarrow \mathrm{Ar}^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.2.19 Data for Cr

The data is stored in SHOT=24 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.6.2.20 Data for Fe

The data is stored in SHOT=26 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.2.21 Data for Ni

The data is stored in SHOT=28 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.6.2.22 Data for Cu

The data is stored in SHOT=29 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.2.23 Data for Ge

The data is stored in SHOT=32 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.6.2.24 Data for Kr

The data is stored in SHOT=36 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.2.25 Data for Mo

The data is stored in SHOT=42 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.6.2.26 Data for Xe

The data is stored in SHOT=54 RUN=2
Description:

```
['AMNS data created by version 437 of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
437
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / ep-sppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.2.27 Data for W

The data is stored in SHOT=74 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w_jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \to w^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \to w^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$w^{z+0} \to w^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_ 270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_ 350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_ 2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 550.000	Physical sputtering yield	1	1	NA	-1	0			

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
53	prj_4he_AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_ 125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_ 130.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			
78	prj_ar _AE0_30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_50.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
83	prj_ar_AE0_55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar_AE0_60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar_AE0_70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar_AE0_80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar_AE0_100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar_AE0_140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar_AE0_200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar_AE0_300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar_AE0_500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar_AE0_700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar_AE0_1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar_AE0_1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar_AE0_30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d_AE0_10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d_AE0_20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d_AE0_50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d_AE0_100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d_AE0_200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d_AE0_250.000	Reflection yield	1	1	NA	-1	0			
103	prj_d_AE0_270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d_AE0_300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d_AE0_350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d_AE0_400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d_AE0_500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
108	prj_d _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h _AE0_ 900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h _AE0_ 4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
128	prj_h _AE0_ 40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h _AE0_ 80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
133	prj_n _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n _AE0_ 48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n _AE0_ 52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n _AE0_ 90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n _AE0_ 120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
183	prj_w _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w _AE0_ 2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe _AE0_ 9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			

3.6.3 Release 3

Description:

['AMNS data created by version 438 of the amns_driver system']

Date:

2015-02-19 15:26:01.352 +0100

3.6.3.1 Data for H

The data is stored in SHOT=1 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z-1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.3.2 Data for 2-H

The data is stored in SHOT=2001 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			D + D → T + H
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			D + D → He + n
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			D + D → T + H
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			D + D → He + n
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → T + H
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → He + n

3.6.3.3 Data for 3-H

The data is stored in SHOT=3001 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			T + D → He + n
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			T + D → He + n
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	T + D → He + n

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$

3.6.3.4 Data for He

The data is stored in SHOT=2 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.3.5 Data for 3-He

The data is stored in SHOT=3002 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.6.3.6 Data for Li

The data is stored in SHOT=3 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.6.3.7 Data for Be

The data is stored in SHOT=4 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_3000.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	prj_d _AE0_ 140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_h _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_ 100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_t _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
51	prj_t_AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t_AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t_AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t_AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t_AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be_AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be_AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be_AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be_AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be_AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be_AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be_AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
86	prj_d_AE0_11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d_AE0_12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d_AE0_13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d_AE0_14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d_AE0_15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d_AE0_17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d_AE0_20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d_AE0_25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d_AE0_30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d_AE0_40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d_AE0_50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d_AE0_70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d_AE0_100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d_AE0_140.000	Reflection yield	1	1	NA	-1	0			
100	prj_d_AE0_200.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
125	prj_t _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
126	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.6.3.8 Data for B

The data is stored in SHOT=5 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	prj_b _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.6.3.9 Data for C

The data is stored in SHOT=6 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
30	prj_4he_AE0_27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
40	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_200.000	Reflection yield	1	1	NA	-1	0			
53	prj_c _AE0_300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c _AE0_500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
55	prj_c _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d _AE0_ 33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
65	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d _AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d _AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.6.3.10 Data for N

The data is stored in SHOT=7 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.3.11 Data for O

The data is stored in SHOT=8 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.6.3.12 Data for F

The data is stored in SHOT=9 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.6.3.13 Data for Ne

The data is stored in SHOT=10 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.3.14 Data for Al

The data is stored in SHOT=13 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.6.3.15 Data for Si

The data is stored in SHOT=14 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \to Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

3.6.3.16 Data for S

The data is stored in SHOT=16 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \rightarrow s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$

3.6.3.17 Data for Cl

The data is stored in SHOT=17 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.3.18 Data for Ar

The data is stored in SHOT=18 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

438

Data source:

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IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.3.19 Data for Cr

The data is stored in SHOT=24 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

438

Data source:

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IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$

3.6.3.20 Data for Fe

The data is stored in SHOT=26 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

438

Data source:

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INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \to Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \to Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \to Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.3.21 Data for Ni

The data is stored in SHOT=28 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

438

Data source:

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INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.6.3.22 Data for Cu

The data is stored in SHOT=29 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\vert D\vert T^{+0} \rightarrow Cu^{z-1} + H\vert D\vert T^{+1}$

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.3.23 Data for Ge

The data is stored in SHOT=32 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.6.3.24 Data for Kr

The data is stored in SHOT=36 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

438

Data source:

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INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.3.25 Data for Mo

The data is stored in SHOT=42 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.6.3.26 Data for Xe

The data is stored in SHOT=54 RUN=3
Description:

```
['AMNS data created by version 438 of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
438
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.6.3.27 Data for W

The data is stored in SHOT=74 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_550.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
53	prj_4he_AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_ 125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_ 130.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			
78	prj_ar _AE0_30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_50.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
83	prj_ar _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar _AE0_ 1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar _AE0_ 1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
108	prj_d _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h _AE0_ 900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h _AE0_ 4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
128	prj_h _AE0_ 40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h _AE0_ 80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
133	prj_n _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n _AE0_ 48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n _AE0_ 52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n _AE0_ 90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n _AE0_ 120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
183	prj_w _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w _AE0_ 2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe _AE0_ 9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			

3.6.4 Release 4

Description:

['AMNS data created by version 467 of the amns_driver system']

Date:

2015-07-20 18:02:16.161 +0200

3.6.4.1 Data for H

The data is stored in SHOT=1 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \to H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \to H^{+0}$

3.6.4.2 Data for 2-H

The data is stored in SHOT=2001 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$
3	NUC_TT	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	NUC_TT	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.6.4.3 Data for 3-H

The data is stored in SHOT=3001 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	NUC_TT	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T + D \rightarrow n + He}$

3.6.4.4 Data for He

The data is stored in SHOT=2 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.6.4.5 Data for 3-He

The data is stored in SHOT=3002 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \rightarrow H + He$
2	NUC_TT	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \rightarrow H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \rightarrow H + He$

3.6.4.6 Data for Li

The data is stored in SHOT=3 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \rightarrow Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.6.4.7 Data for Be

The data is stored in SHOT=4 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.6.4.8 Data for B

The data is stored in SHOT=5 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.6.4.9 Data for C

The data is stored in SHOT=6 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../../../data/surface/block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../../../data/surface/block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../../../data/surface/block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.6.4.10 Data for N

The data is stored in SHOT=7 RUN=4
Description:

```
['AMNS data created by version 467 of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.6.4.11 Data for O

The data is stored in SHOT=8 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.6.4.12 Data for F

The data is stored in SHOT=9 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.6.4.13 Data for Ne

The data is stored in SHOT=10 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.6.4.14 Data for Al

The data is stored in SHOT=13 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.6.4.15 Data for Si

The data is stored in SHOT=14 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.6.4.16 Data for S

The data is stored in SHOT=16 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \to s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$

3.6.4.17 Data for Cl

The data is stored in SHOT=17 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \to Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \to Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.4.18 Data for Ar

The data is stored in SHOT=18 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.6.4.19 Data for Cr

The data is stored in SHOT=24 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=24 AMN=51.9961

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.6.4.20 Data for Fe

The data is stored in SHOT=26 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.4.21 Data for Ni

The data is stored in SHOT=28 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.6.4.22 Data for Cu

The data is stored in SHOT=29 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.4.23 Data for Ge

The data is stored in SHOT=32 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

3.6.4.24 Data for Kr

The data is stored in SHOT=36 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \to Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \to Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.6.4.25 Data for Mo

The data is stored in SHOT=42 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

3.6.4.26 Data for Xe

The data is stored in SHOT=54 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.6.4.27 Data for W

The data is stored in SHOT=74 RUN=4
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ar → W
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + D → W
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + H → W
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + He4 → W
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Kr → W
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ne → W

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + O → W
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + T → W
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + W → W
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Xe → W
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + He → He
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ar → Ar
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + D → D
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + H → H
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Kr → Kr
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + N → N
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ne → Ne

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + T → T
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + W → W
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Xe → Xe

3.6.5 Release 5

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2019-04-01 15:08:36.247 +0200

3.6.5.1 Data for H

The data is stored in SHOT=1 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \to H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \to H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \to H^{+0}$

3.6.5.2 Data for 4674

The data is stored in SHOT=4674 RUN=1
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \rightarrow D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \rightarrow Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \rightarrow C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \rightarrow W^{+74} + Be^{+4} + C$

3.6.5.3 Data for 2-H

The data is stored in SHOT=2001 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to H + T$
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to n + He$

3.6.5.4 Data for 3-H

The data is stored in SHOT=3001 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \to n + He$
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \to n + He$
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to n + He$
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			$T + T \to 2n + He$
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to 2n + He$

3.6.5.5 Data for He

The data is stored in SHOT=2 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.6.5.6 Data for 3-He

The data is stored in SHOT=3002 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \to H + He$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \to H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \to H + He$

3.6.5.7 Data for Li

The data is stored in SHOT=3 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.6.5.8 Data for Be

The data is stored in SHOT=4 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.6.5.9 Data for B

The data is stored in SHOT=5 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.6.5.10 Data for C

The data is stored in SHOT=6 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.6.5.11 Data for N

The data is stored in SHOT=7 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.6.5.12 Data for O

The data is stored in SHOT=8 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.6.5.13 Data for F

The data is stored in SHOT=9 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.6.5.14 Data for Ne

The data is stored in SHOT=10 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.6.5.15 Data for Al

The data is stored in SHOT=13 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.6.5.16 Data for Si

The data is stored in SHOT=14 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.6.5.17 Data for S

The data is stored in SHOT=16 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \to S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$

3.6.5.18 Data for Cl

The data is stored in SHOT=17 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \to Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \to Cl^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.5.19 Data for Ar

The data is stored in SHOT=18 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.6.5.20 Data for Cr

The data is stored in SHOT=24 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.6.5.21 Data for Fe

The data is stored in SHOT=26 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.5.22 Data for Ni

The data is stored in SHOT=28 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.6.5.23 Data for Cu

The data is stored in SHOT=29 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.5.24 Data for Ge

The data is stored in SHOT=32 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32 AMN=72.61

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.6.5.25 Data for Kr

The data is stored in SHOT=36 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.6.5.26 Data for Mo

The data is stored in SHOT=42 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.6.5.27 Data for Xe

The data is stored in SHOT=54 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.6.5.28 Data for W

The data is stored in SHOT=74 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

656

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \to W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \to W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \to W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \to W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \to W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \to W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \to W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \to W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \to W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + O → W
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + T → W
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + W → W
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Xe → W
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + He → He
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ar → Ar
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + D → D
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + H → H
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Kr → Kr
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + N → N
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ne → Ne

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.6.6 Release 6 [DEFAULT]

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2020-12-17 11:48:15.225 +0100

3.6.6.1 Data for H

The data is stored in SHOT=1 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.6.6.2 Data for 4674

The data is stored in SHOT=4674 RUN=2
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \rightarrow D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \rightarrow Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \rightarrow C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \rightarrow W^{+74} + Be^{+4} + C$

3.6.6.3 Data for 2-H

The data is stored in SHOT=2001 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			D + D → H + T
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			D + D → n + He
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → H + T
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → n + He

3.6.6.4 Data for 3-H

The data is stored in SHOT=3001 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			D + T → n + He
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			D + T → n + He
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + T → n + He
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	T + D → n + He
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			T + T → 2n + He
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			T + T → 2n + He

3.6.6.5 Data for He

The data is stored in SHOT=2 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.6.6.6 Data for 3-He

The data is stored in SHOT=3002 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \rightarrow H + He$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \rightarrow H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \rightarrow H + He$

3.6.6.7 Data for Li

The data is stored in SHOT=3 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \rightarrow Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.6.6.8 Data for Be

The data is stored in SHOT=4 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.6.6.9 Data for B

The data is stored in SHOT=5 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.6.6.10 Data for C

The data is stored in SHOT=6 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.6.6.11 Data for N

The data is stored in SHOT=7 RUN=6
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.6.6.12 Data for O

The data is stored in SHOT=8 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.6.6.13 Data for F

The data is stored in SHOT=9 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.6.6.14 Data for Ne

The data is stored in SHOT=10 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.6.6.15 Data for Al

The data is stored in SHOT=13 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.6.6.16 Data for Si

The data is stored in SHOT=14 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.6.6.17 Data for S

The data is stored in SHOT=16 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \to s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$

3.6.6.18 Data for Cl

The data is stored in SHOT=17 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \to Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \to Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.6.6.19 Data for Ar

The data is stored in SHOT=18 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \to Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \to Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \to Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \to Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \to Ar^{+0} + Ar^{+1}$

3.6.6.20 Data for Cr

The data is stored in SHOT=24 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24 AMN=51.9961

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \to Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \to Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \to Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$

3.6.6.21 Data for Fe

The data is stored in SHOT=26 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.6.6.22 Data for Ni

The data is stored in SHOT=28 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.6.6.23 Data for Cu

The data is stored in SHOT=29 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.6.6.24 Data for Ge

The data is stored in SHOT=32 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.6.6.25 Data for Kr

The data is stored in SHOT=36 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.6.6.26 Data for Mo

The data is stored in SHOT=42 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.6.6.27 Data for Xe

The data is stored in SHOT=54 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.6.6.28 Data for W

The data is stored in SHOT=74 RUN=6
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

670

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt42/ plt42_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	3	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	3	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	3	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
10	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \to W$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \to W$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \to W$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \to W$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \to W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \to W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \to W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \to W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \to W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \to W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \to W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \to Ar$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \to Kr$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \to N$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \to Ne$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7 AMNS reactions 4.10b (user g2dpc)

Based on data from USER ”g2dpc”, using the CPO ”amns” and DATAVERSION ”4.10b”.
Prepared at 2020-12-17 17:25:32 UTC

3.7.1 Release 1

Description:

['AMNS data created by version 399 of the amns_driver system']

Date:

2014-09-15 10:34:42.761 +0200

3.7.1.1 Data for H

The data is stored in SHOT=1 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.1.2 Data for 2-H

The data is stored in SHOT=2001 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$\mathrm{D + D \rightarrow He + n}$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D + D \rightarrow T + H}$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D + D \rightarrow He + n}$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D + D \rightarrow T + H}$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D + D \rightarrow He + n}$

3.7.1.3 Data for 3-H

The data is stored in SHOT=3001 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$\mathrm{T + D \rightarrow He + n}$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{T + D \rightarrow He + n}$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T + D \rightarrow He + n}$
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T + D \rightarrow He + n}$

3.7.1.4 Data for He

The data is stored in SHOT=2 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=2 AMN=4.002602

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.1.5 Data for 3-He

The data is stored in SHOT=3002 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.7.1.6 Data for Li

The data is stored in SHOT=3 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=3 AMN=6.941

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.1.7 Data for Be

The data is stored in SHOT=4 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_3000.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	prj_d _AE0_ 140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_h _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_ 100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_t _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
51	prj_t_AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t_AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t_AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t_AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t_AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be _AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be _AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be _AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be _AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be _AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be _AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be _AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be _AE0_3000.000	Reflection yield	1	1	NA	-1	0			
86	prj_d _AE0_11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d _AE0_12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d _AE0_13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d _AE0_14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d _AE0_15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d _AE0_17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d _AE0_20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d _AE0_25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d _AE0_30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d _AE0_40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d _AE0_50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_140.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_200.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
125	prj_t _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
126	prj_t_AE0_20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t_AE0_25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t_AE0_30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t_AE0_50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t_AE0_100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t_AE0_200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t_AE0_300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t_AE0_500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t_AE0_1000.000	Reflection yield	1	1	NA	-1	0			

3.7.1.8 Data for B

The data is stored in SHOT=5 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	prj_b _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.7.1.9 Data for C

The data is stored in SHOT=6 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
30	prj_4he_AE0_27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
40	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_200.000	Reflection yield	1	1	NA	-1	0			
53	prj_c _AE0_300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c _AE0_500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
55	prj_c _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d _AE0_ 33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
65	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d _AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d _AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.7.1.10 Data for N

The data is stored in SHOT=7 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.1.11 Data for O

The data is stored in SHOT=8 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.1.12 Data for F

The data is stored in SHOT=9 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.1.13 Data for Ne

The data is stored in SHOT=10 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.1.14 Data for Al

The data is stored in SHOT=13 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}+e^{-1}\rightarrow Al^{z-1}+e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}+e^{-1}\rightarrow Al^{z+1}+e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}+H\|D\|T^{+0}\rightarrow Al^{z-1}+H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}\rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}\rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}\rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}\rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0}\rightarrow Al^{z+0}$

3.7.1.15 Data for Si

The data is stored in SHOT=14 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.1.16 Data for S

The data is stored in SHOT=16 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \to s^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \to s^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \to s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \to s^{z+0}$

3.7.1.17 Data for Cl

The data is stored in SHOT=17 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.1.18 Data for Ar

The data is stored in SHOT=18 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.1.19 Data for Cr

The data is stored in SHOT=24 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/acd89/acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/scd89/scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/ccd89/ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/prb89/prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/plt89/plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../../../data/atomic/adas/adf11/zcd89/zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../../../data/atomic/adas/adf11/ycd89/ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.1.20 Data for Fe

The data is stored in SHOT=26 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$

3.7.1.21 Data for Ni

The data is stored in SHOT=28 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \to Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \to Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \to Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.1.22 Data for Cu

The data is stored in SHOT=29 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.1.23 Data for Ge

The data is stored in SHOT=32 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.1.24 Data for Kr

The data is stored in SHOT=36 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.1.25 Data for Mo

The data is stored in SHOT=42 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.1.26 Data for Xe

The data is stored in SHOT=54 RUN=1
Description:

```
['AMNS data created by version 399 of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
399
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Xe}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Xe}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{Xe}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} \rightarrow \mathrm{Xe}^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} \rightarrow \mathrm{Xe}^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} \rightarrow \mathrm{Xe}^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} \rightarrow \mathrm{Xe}^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Xe}^{z+0} \rightarrow \mathrm{Xe}^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.1.27 Data for W

The data is stored in SHOT=74 RUN=1
Description:

['AMNS data created by version 399 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

399

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \to W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_550.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
53	prj_4he_AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_ 125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_ 130.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			
78	prj_ar _AE0_30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_50.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
83	prj_ar _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar _AE0_ 1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar _AE0_ 1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
108	prj_d _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h _AE0_ 900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h _AE0_ 4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
128	prj_h _AE0_ 40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h _AE0_ 80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
133	prj_n _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n _AE0_ 48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n _AE0_ 52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n _AE0_ 90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n _AE0_ 120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
183	prj_w_AE0_500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w_AE0_800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w_AE0_2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe_AE0_9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe_AE0_30000.000	Reflection yield	1	1	NA	-1	0			

3.7.2 Release 2

Description:

['AMNS data created by version 437 of the amns_driver system']

Date:

2014-12-17 13:24:06.495 +0100

3.7.2.1 Data for H

The data is stored in SHOT=1 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z-1} + e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.2.2 Data for 2-H

The data is stored in SHOT=2001 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow He + n$

3.7.2.3 Data for 3-H

The data is stored in SHOT=3001 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \rightarrow He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \rightarrow He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow He + n$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow He + n$

3.7.2.4 Data for He

The data is stored in SHOT=2 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.2.5 Data for 3-He

The data is stored in SHOT=3002 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=2 AMN=3.0

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$He + D \to He + H$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$He + D \to He + H$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$

3.7.2.6 Data for Li

The data is stored in SHOT=3 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.2.7 Data for Be

The data is stored in SHOT=4 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_3000.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	prj_d _AE0_ 140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_h _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_ 100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_t _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
51	prj_t _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t _AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be _AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be _AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be _AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be _AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be _AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be _AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be _AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be _AE0_3000.000	Reflection yield	1	1	NA	-1	0			
86	prj_d _AE0_11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d _AE0_12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d _AE0_13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d _AE0_14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d _AE0_15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d _AE0_17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d _AE0_20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d _AE0_25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d _AE0_30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d _AE0_40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d _AE0_50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_140.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_200.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
125	prj_t _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
126	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.7.2.8 Data for B

The data is stored in SHOT=5 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
9	prj_b _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.7.2.9 Data for C

The data is stored in SHOT=6 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=6 AMN=12.011

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
30	prj_4he_AE0_ 27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_ 35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
40	prj_4he_AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_ 5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_ 20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
53	prj_c _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
55	prj_c _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d _AE0_ 33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
65	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d _AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d _AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ - 42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.7.2.10 Data for N

The data is stored in SHOT=7 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.2.11 Data for O

The data is stored in SHOT=8 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.2.12 Data for F

The data is stored in SHOT=9 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.2.13 Data for Ne

The data is stored in SHOT=10 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.2.14 Data for Al

The data is stored in SHOT=13 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.2.15 Data for Si

The data is stored in SHOT=14 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \to Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

3.7.2.16 Data for S

The data is stored in SHOT=16 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \rightarrow s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$

3.7.2.17 Data for Cl

The data is stored in SHOT=17 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.2.18 Data for Ar

The data is stored in SHOT=18 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.2.19 Data for Cr

The data is stored in SHOT=24 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/acd89/acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \to Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/scd89/scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \to Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/ccd89/ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \to Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/prb89/prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/plt89/plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../../../data/atomic/adas/adf11/zcd89/zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../../../data/atomic/adas/adf11/ycd89/ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \to Cr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.2.20 Data for Fe

The data is stored in SHOT=26 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.2.21 Data for Ni

The data is stored in SHOT=28 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.2.22 Data for Cu

The data is stored in SHOT=29 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.2.23 Data for Ge

The data is stored in SHOT=32 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

3.7.2.24 Data for Kr

The data is stored in SHOT=36 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

437

Data source:

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INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \to Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.2.25 Data for Mo

The data is stored in SHOT=42 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

437

Data source:

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INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.2.26 Data for Xe

The data is stored in SHOT=54 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.2.27 Data for W

The data is stored in SHOT=74 RUN=2
Description:

['AMNS data created by version 437 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

437

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w_jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_550.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
53	prj_4he_AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_ 125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_ 130.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			
78	prj_ar _AE0_30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_50.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
83	prj_ar _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar _AE0_ 1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar _AE0_ 1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
108	prj_d _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h _AE0_ 900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h _AE0_ 4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
128	prj_h _AE0_ 40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h _AE0_ 80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
133	prj_n _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n _AE0_ 48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n _AE0_ 52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n _AE0_ 90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n _AE0_ 120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
183	prj_w _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w _AE0_ 2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe _AE0_ 9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			

3.7.3 Release 3

Description:

['AMNS data created by version 438 of the amns_driver system']

Date:

2015-02-19 15:23:17.482 +0100

3.7.3.1 Data for H

The data is stored in SHOT=1 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z-1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.3.2 Data for 2-H

The data is stored in SHOT=2001 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.3.3 Data for 3-H

The data is stored in SHOT=3001 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \to He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$

3.7.3.4 Data for He

The data is stored in SHOT=2 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + \mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.3.5 Data for 3-He

The data is stored in SHOT=3002 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$He + D \rightarrow He + H$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$He + D \rightarrow He + H$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow He + H$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow He + H$

3.7.3.6 Data for Li

The data is stored in SHOT=3 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.3.7 Data for Be

The data is stored in SHOT=4 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_be_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_d _AE0_200.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_d _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_d _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_20.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_d _AE0_70.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_50.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_40.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_30.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_3000.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	prj_d _AE0_ 140.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_ 14.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_ 12.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_d _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_d _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_ 40.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_ 70.000	Physical sputtering yield	1	1	NA	-1	0			
33	prj_h _AE0_ 25.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 22.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_h _AE0_ 17.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_h _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_h _AE0_ 100.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_h _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_h _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_h _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_h _AE0_ 30.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 10.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 20.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_t _AE0_ 15.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
51	prj_t _AE0_17.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_t _AE0_13.000	Physical sputtering yield	1	1	NA	-1	0			
53	prj_t _AE0_25.000	Physical sputtering yield	1	1	NA	-1	0			
54	prj_t _AE0_11.000	Physical sputtering yield	1	1	NA	-1	0			
55	prj_t _AE0_12.000	Physical sputtering yield	1	1	NA	-1	0			
56	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
57	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
58	prj_4he_AE0_11.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_12.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_13.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_17.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
76	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
77	prj_be _AE0_50.000	Reflection yield	1	1	NA	-1	0			
78	prj_be _AE0_70.000	Reflection yield	1	1	NA	-1	0			
79	prj_be _AE0_100.000	Reflection yield	1	1	NA	-1	0			
80	prj_be _AE0_200.000	Reflection yield	1	1	NA	-1	0			
81	prj_be _AE0_300.000	Reflection yield	1	1	NA	-1	0			
82	prj_be _AE0_500.000	Reflection yield	1	1	NA	-1	0			
83	prj_be _AE0_700.000	Reflection yield	1	1	NA	-1	0			
84	prj_be _AE0_1000.000	Reflection yield	1	1	NA	-1	0			
85	prj_be _AE0_3000.000	Reflection yield	1	1	NA	-1	0			
86	prj_d _AE0_11.000	Reflection yield	1	1	NA	-1	0			
87	prj_d _AE0_12.000	Reflection yield	1	1	NA	-1	0			
88	prj_d _AE0_13.000	Reflection yield	1	1	NA	-1	0			
89	prj_d _AE0_14.000	Reflection yield	1	1	NA	-1	0			
90	prj_d _AE0_15.000	Reflection yield	1	1	NA	-1	0			
91	prj_d _AE0_17.000	Reflection yield	1	1	NA	-1	0			
92	prj_d _AE0_20.000	Reflection yield	1	1	NA	-1	0			
93	prj_d _AE0_25.000	Reflection yield	1	1	NA	-1	0			
94	prj_d _AE0_30.000	Reflection yield	1	1	NA	-1	0			
95	prj_d _AE0_40.000	Reflection yield	1	1	NA	-1	0			
96	prj_d _AE0_50.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_70.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_100.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_140.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_200.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
101	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
104	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
105	prj_h _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
106	prj_h _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			
107	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
108	prj_h _AE0_ 22.000	Reflection yield	1	1	NA	-1	0			
109	prj_h _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
110	prj_h _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
120	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
121	prj_t _AE0_ 11.000	Reflection yield	1	1	NA	-1	0			
122	prj_t _AE0_ 12.000	Reflection yield	1	1	NA	-1	0			
123	prj_t _AE0_ 13.000	Reflection yield	1	1	NA	-1	0			
124	prj_t _AE0_ 15.000	Reflection yield	1	1	NA	-1	0			
125	prj_t _AE0_ 17.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
126	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
127	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
128	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
129	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
130	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
131	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
132	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
133	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
134	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.7.3.8 Data for B

The data is stored in SHOT=5 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	prj_b _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
10	prj_d _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
11	prj_h _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
12	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
13	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
14	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
15	prj_t _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_4he_AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
17	prj_b _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
18	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
19	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
20	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
21	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
22	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
23	prj_h _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
24	prj_t _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			

3.7.3.9 Data for C

The data is stored in SHOT=6 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
16	prj_c _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
17	prj_d _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
18	prj_h _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
19	prj_he_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_kr_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_n _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_ne_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_o _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_t _AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_xe_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_4he_AE0_10.000	Reflection yield	1	1	NA	-1	0			
27	prj_4he_AE0_15.000	Reflection yield	1	1	NA	-1	0			
28	prj_4he_AE0_20.000	Reflection yield	1	1	NA	-1	0			
29	prj_4he_AE0_25.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
30	prj_4he_AE0_27.000	Reflection yield	1	1	NA	-1	0			
31	prj_4he_AE0_30.000	Reflection yield	1	1	NA	-1	0			
32	prj_4he_AE0_35.000	Reflection yield	1	1	NA	-1	0			
33	prj_4he_AE0_40.000	Reflection yield	1	1	NA	-1	0			
34	prj_4he_AE0_50.000	Reflection yield	1	1	NA	-1	0			
35	prj_4he_AE0_60.000	Reflection yield	1	1	NA	-1	0			
36	prj_4he_AE0_70.000	Reflection yield	1	1	NA	-1	0			
37	prj_4he_AE0_100.000	Reflection yield	1	1	NA	-1	0			
38	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
39	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
40	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
41	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
42	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
43	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
44	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
45	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
46	prj_4he_AE0_3000.000	Reflection yield	1	1	NA	-1	0			
47	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
48	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
49	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
50	prj_c _AE0_100.000	Reflection yield	1	1	NA	-1	0			
51	prj_c _AE0_140.000	Reflection yield	1	1	NA	-1	0			
52	prj_c _AE0_200.000	Reflection yield	1	1	NA	-1	0			
53	prj_c _AE0_300.000	Reflection yield	1	1	NA	-1	0			
54	prj_c _AE0_500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
55	prj_c _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
56	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
57	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
58	prj_d _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
59	prj_d _AE0_ 33.000	Reflection yield	1	1	NA	-1	0			
60	prj_d _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
61	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
62	prj_d _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
63	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
64	prj_d _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
65	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
66	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
67	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
68	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
69	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
70	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
71	prj_d _AE0_ 3000.000	Reflection yield	1	1	NA	-1	0			
72	prj_d _AE0_ 10000.000	Reflection yield	1	1	NA	-1	0			
73	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
74	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
75	prj_h _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
76	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
77	prj_h _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
78	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
79	prj_h _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
80	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
81	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
82	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
83	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
84	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
85	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
86	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
87	prj_n _AE0_ - 42.000	Reflection yield	1	1	NA	-1	0			
88	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
89	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
90	prj_t _AE0_ 25.000	Reflection yield	1	1	NA	-1	0			
91	prj_t _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
92	prj_t _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
93	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
94	prj_t _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
95	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
96	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
97	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
98	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
99	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
100	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			

3.7.3.10 Data for N

The data is stored in SHOT=7 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.3.11 Data for O

The data is stored in SHOT=8 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=8 AMN=15.9994

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.3.12 Data for F

The data is stored in SHOT=9 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.3.13 Data for Ne

The data is stored in SHOT=10 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=10 AMN=20.1797

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.3.14 Data for Al

The data is stored in SHOT=13 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.3.15 Data for Si

The data is stored in SHOT=14 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.3.16 Data for S

The data is stored in SHOT=16 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + e^{-1} \rightarrow s^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} + H\|D\|T^{+0} \rightarrow s^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$s^{z+0} \rightarrow s^{z+0}$

3.7.3.17 Data for Cl

The data is stored in SHOT=17 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.3.18 Data for Ar

The data is stored in SHOT=18 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.3.19 Data for Cr

The data is stored in SHOT=24 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.3.20 Data for Fe

The data is stored in SHOT=26 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$

3.7.3.21 Data for Ni

The data is stored in SHOT=28 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \to Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \to Ni^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \to Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.3.22 Data for Cu

The data is stored in SHOT=29 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.3.23 Data for Ge

The data is stored in SHOT=32 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

3.7.3.24 Data for Kr

The data is stored in SHOT=36 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \to Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.3.25 Data for Mo

The data is stored in SHOT=42 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.3.26 Data for Xe

The data is stored in SHOT=54 RUN=3
Description:

```
['AMNS data created by version 438 of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
438
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.3.27 Data for W

The data is stored in SHOT=74 RUN=3
Description:

['AMNS data created by version 438 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

438

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w_jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	prj_ar_AE0_0.000	Physical sputtering yield	1	1	NA	-1	0			
20	prj_d _AE0_270.000	Physical sputtering yield	1	1	NA	-1	0			
21	prj_d _AE0_250.000	Physical sputtering yield	1	1	NA	-1	0			
22	prj_d _AE0_600.000	Physical sputtering yield	1	1	NA	-1	0			
23	prj_d _AE0_1000.000	Physical sputtering yield	1	1	NA	-1	0			
24	prj_d _AE0_350.000	Physical sputtering yield	1	1	NA	-1	0			
25	prj_d _AE0_400.000	Physical sputtering yield	1	1	NA	-1	0			
26	prj_d _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
27	prj_d _AE0_300.000	Physical sputtering yield	1	1	NA	-1	0			
28	prj_d _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
29	prj_h _AE0_500.000	Physical sputtering yield	1	1	NA	-1	0			
30	prj_h _AE0_2000.000	Physical sputtering yield	1	1	NA	-1	0			
31	prj_h _AE0_700.000	Physical sputtering yield	1	1	NA	-1	0			
32	prj_h _AE0_550.000	Physical sputtering yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
33	prj_h _AE0_ 600.000	Physical sputtering yield	1	1	NA	-1	0			
34	prj_h _AE0_ 900.000	Physical sputtering yield	1	1	NA	-1	0			
35	prj_h _AE0_ 800.000	Physical sputtering yield	1	1	NA	-1	0			
36	prj_he_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
37	prj_kr_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
38	prj_n _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
39	prj_ne_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
40	prj_o _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
41	prj_t _AE0_ 700.000	Physical sputtering yield	1	1	NA	-1	0			
42	prj_t _AE0_ 170.000	Physical sputtering yield	1	1	NA	-1	0			
43	prj_t _AE0_ 300.000	Physical sputtering yield	1	1	NA	-1	0			
44	prj_t _AE0_ 180.000	Physical sputtering yield	1	1	NA	-1	0			
45	prj_t _AE0_ 400.000	Physical sputtering yield	1	1	NA	-1	0			
46	prj_t _AE0_ 1000.000	Physical sputtering yield	1	1	NA	-1	0			
47	prj_t _AE0_ 200.000	Physical sputtering yield	1	1	NA	-1	0			
48	prj_t _AE0_ 500.000	Physical sputtering yield	1	1	NA	-1	0			
49	prj_t _AE0_ 250.000	Physical sputtering yield	1	1	NA	-1	0			
50	prj_w _AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
51	prj_xe_AE0_ 0.000	Physical sputtering yield	1	1	NA	-1	0			
52	prj_4he_AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
53	prj_4he_AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
54	prj_4he_AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
55	prj_4he_AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
56	prj_4he_AE0_ 125.000	Reflection yield	1	1	NA	-1	0			
57	prj_4he_AE0_ 130.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
58	prj_4he_AE0_140.000	Reflection yield	1	1	NA	-1	0			
59	prj_4he_AE0_150.000	Reflection yield	1	1	NA	-1	0			
60	prj_4he_AE0_170.000	Reflection yield	1	1	NA	-1	0			
61	prj_4he_AE0_200.000	Reflection yield	1	1	NA	-1	0			
62	prj_4he_AE0_250.000	Reflection yield	1	1	NA	-1	0			
63	prj_4he_AE0_300.000	Reflection yield	1	1	NA	-1	0			
64	prj_4he_AE0_350.000	Reflection yield	1	1	NA	-1	0			
65	prj_4he_AE0_400.000	Reflection yield	1	1	NA	-1	0			
66	prj_4he_AE0_500.000	Reflection yield	1	1	NA	-1	0			
67	prj_4he_AE0_600.000	Reflection yield	1	1	NA	-1	0			
68	prj_4he_AE0_700.000	Reflection yield	1	1	NA	-1	0			
69	prj_4he_AE0_1000.000	Reflection yield	1	1	NA	-1	0			
70	prj_4he_AE0_1400.000	Reflection yield	1	1	NA	-1	0			
71	prj_4he_AE0_2000.000	Reflection yield	1	1	NA	-1	0			
72	prj_4he_AE0_5000.000	Reflection yield	1	1	NA	-1	0			
73	prj_4he_AE0_10000.000	Reflection yield	1	1	NA	-1	0			
74	prj_4he_AE0_20000.000	Reflection yield	1	1	NA	-1	0			
75	prj_4he_AE0_50000.000	Reflection yield	1	1	NA	-1	0			
76	prj_ar _AE0_10.000	Reflection yield	1	1	NA	-1	0			
77	prj_ar _AE0_20.000	Reflection yield	1	1	NA	-1	0			
78	prj_ar _AE0_30.000	Reflection yield	1	1	NA	-1	0			
79	prj_ar _AE0_35.000	Reflection yield	1	1	NA	-1	0			
80	prj_ar _AE0_40.000	Reflection yield	1	1	NA	-1	0			
81	prj_ar _AE0_45.000	Reflection yield	1	1	NA	-1	0			
82	prj_ar _AE0_50.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
83	prj_ar _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
84	prj_ar _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
85	prj_ar _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
86	prj_ar _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
87	prj_ar _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
88	prj_ar _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
89	prj_ar _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
90	prj_ar _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
91	prj_ar _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
92	prj_ar _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
93	prj_ar _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
94	prj_ar _AE0_ 1005.000	Reflection yield	1	1	NA	-1	0			
95	prj_ar _AE0_ 1050.000	Reflection yield	1	1	NA	-1	0			
96	prj_ar _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			
97	prj_d _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
98	prj_d _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
99	prj_d _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
100	prj_d _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
101	prj_d _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
102	prj_d _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
103	prj_d _AE0_ 270.000	Reflection yield	1	1	NA	-1	0			
104	prj_d _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
105	prj_d _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
106	prj_d _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
107	prj_d _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
108	prj_d _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
109	prj_d _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
110	prj_d _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
111	prj_h _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
112	prj_h _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
113	prj_h _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
114	prj_h _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
115	prj_h _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
116	prj_h _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
117	prj_h _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
118	prj_h _AE0_ 550.000	Reflection yield	1	1	NA	-1	0			
119	prj_h _AE0_ 600.000	Reflection yield	1	1	NA	-1	0			
120	prj_h _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
121	prj_h _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
122	prj_h _AE0_ 900.000	Reflection yield	1	1	NA	-1	0			
123	prj_h _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
124	prj_h _AE0_ 2000.000	Reflection yield	1	1	NA	-1	0			
125	prj_h _AE0_ 4000.000	Reflection yield	1	1	NA	-1	0			
126	prj_h _AE0_ 13333.000	Reflection yield	1	1	NA	-1	0			
127	prj_h _AE0_ 26667.000	Reflection yield	1	1	NA	-1	0			
128	prj_h _AE0_ 40000.000	Reflection yield	1	1	NA	-1	0			
129	prj_h _AE0_ 80000.000	Reflection yield	1	1	NA	-1	0			
130	prj_kr _AE0_ -42.000	Reflection yield	1	1	NA	-1	0			
131	prj_n _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
132	prj_n _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
133	prj_n _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
134	prj_n _AE0_ 48.000	Reflection yield	1	1	NA	-1	0			
135	prj_n _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
136	prj_n _AE0_ 52.000	Reflection yield	1	1	NA	-1	0			
137	prj_n _AE0_ 55.000	Reflection yield	1	1	NA	-1	0			
138	prj_n _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
139	prj_n _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
140	prj_n _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			
141	prj_n _AE0_ 90.000	Reflection yield	1	1	NA	-1	0			
142	prj_n _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
143	prj_n _AE0_ 120.000	Reflection yield	1	1	NA	-1	0			
144	prj_n _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
145	prj_n _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
146	prj_n _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
147	prj_n _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
148	prj_n _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
149	prj_ne _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
150	prj_ne _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
151	prj_ne _AE0_ 30.000	Reflection yield	1	1	NA	-1	0			
152	prj_ne _AE0_ 40.000	Reflection yield	1	1	NA	-1	0			
153	prj_ne _AE0_ 45.000	Reflection yield	1	1	NA	-1	0			
154	prj_ne _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
155	prj_ne _AE0_ 60.000	Reflection yield	1	1	NA	-1	0			
156	prj_ne _AE0_ 70.000	Reflection yield	1	1	NA	-1	0			
157	prj_ne _AE0_ 80.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
158	prj_ne _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
159	prj_ne _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
160	prj_ne _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
161	prj_ne _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
162	prj_ne _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
163	prj_ne _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
164	prj_ne _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
165	prj_ne _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
166	prj_t _AE0_ 10.000	Reflection yield	1	1	NA	-1	0			
167	prj_t _AE0_ 20.000	Reflection yield	1	1	NA	-1	0			
168	prj_t _AE0_ 50.000	Reflection yield	1	1	NA	-1	0			
169	prj_t _AE0_ 100.000	Reflection yield	1	1	NA	-1	0			
170	prj_t _AE0_ 140.000	Reflection yield	1	1	NA	-1	0			
171	prj_t _AE0_ 160.000	Reflection yield	1	1	NA	-1	0			
172	prj_t _AE0_ 170.000	Reflection yield	1	1	NA	-1	0			
173	prj_t _AE0_ 180.000	Reflection yield	1	1	NA	-1	0			
174	prj_t _AE0_ 200.000	Reflection yield	1	1	NA	-1	0			
175	prj_t _AE0_ 250.000	Reflection yield	1	1	NA	-1	0			
176	prj_t _AE0_ 300.000	Reflection yield	1	1	NA	-1	0			
177	prj_t _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			
178	prj_t _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
179	prj_t _AE0_ 700.000	Reflection yield	1	1	NA	-1	0			
180	prj_t _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
181	prj_w _AE0_ 350.000	Reflection yield	1	1	NA	-1	0			
182	prj_w _AE0_ 400.000	Reflection yield	1	1	NA	-1	0			

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
183	prj_w _AE0_ 500.000	Reflection yield	1	1	NA	-1	0			
184	prj_w _AE0_ 800.000	Reflection yield	1	1	NA	-1	0			
185	prj_w _AE0_ 1000.000	Reflection yield	1	1	NA	-1	0			
186	prj_w _AE0_ 2500.000	Reflection yield	1	1	NA	-1	0			
187	prj_xe _AE0_ 9500.000	Reflection yield	1	1	NA	-1	0			
188	prj_xe _AE0_ 30000.000	Reflection yield	1	1	NA	-1	0			

3.7.4 Release 4

Description:

['AMNS data created by version 456 of the amns_driver system']

Date:

2015-06-29 14:00:37.746 +0200

3.7.4.1 Data for H

The data is stored in SHOT=1 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.4.2 Data for 2-H

The data is stored in SHOT=2001 RUN=4
Description:

```
['AMNS data created by version 456 of the amns_driver system']
```

Charge and mass:

```
ZN=1
AMN=2.0
```

Version:

```
456
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.4.3 Data for 3-H

The data is stored in SHOT=3001 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \to He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow He + n$

3.7.4.4 Data for He

The data is stored in SHOT=2 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / ep-sppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.4.5 Data for 3-He

The data is stored in SHOT=3002 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=2 AMN=3.0

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.7.4.6 Data for Li

The data is stored in SHOT=3 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.4.7 Data for Be

The data is stored in SHOT=4 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + ar^{+18} \rightarrow be^{+4}$
12	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + be^{+4} \rightarrow be^{+4}$
13	SPUT	Physical sputtering yield	18	1	NA	-1	0			$be^{+4} + d^{+1} \rightarrow be^{+4}$
14	SPUT	Physical sputtering yield	12	1	NA	-1	0			$be^{+4} + h^{+1} \rightarrow be^{+4}$
15	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + he4^{+2} \rightarrow be^{+4}$
16	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + kr^{+36} \rightarrow be^{+4}$
17	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + n^{+7} \rightarrow be^{+4}$
18	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + ne^{+10} \rightarrow be^{+4}$
19	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + o^{+8} \rightarrow be^{+4}$
20	SPUT	Physical sputtering yield	8	1	NA	-1	0			$be^{+4} + t^{+1} \rightarrow be^{+4}$
21	SPUT	Physical sputtering yield	1	1	NA	-1	0			$be^{+4} + xe^{+54} \rightarrow be^{+4}$
22	REFL	Reflection yield	20	1	NA	-1	0			$be^{+4} + 4he^{+2} \rightarrow 4he^{+2}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
23	REFL	Reflection yield	9	1	NA	-1	0			$be^{+4} + be^{+4} \to be^{+4}$
24	REFL	Reflection yield	18	1	NA	-1	0			$be^{+4} + d^{+1} \to d^{+1}$
25	REFL	Reflection yield	16	1	NA	-1	0			$be^{+4} + h^{+1} \to h^{+1}$
26	REFL	Reflection yield	15	1	NA	-1	0			$be^{+4} + t^{+1} \to t^{+1}$

3.7.4.8 Data for B

The data is stored in SHOT=5 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \to B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \to B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \to B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + b^{+5} \rightarrow b^{+5}$
10	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + d^{+1} \rightarrow b^{+5}$
11	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + h^{+1} \rightarrow b^{+5}$
12	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + he4^{+2} \rightarrow b^{+5}$
13	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + ne^{+10} \rightarrow b^{+5}$
14	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + o^{+8} \rightarrow b^{+5}$
15	SPUT	Physical sputtering yield	1	1	NA	-1	0			$b^{+5} + t^{+1} \rightarrow b^{+5}$
16	REFL	Reflection yield	1	1	NA	-1	0			$b^{+5} + 4he^{+2} \rightarrow 4he^{+2}$
17	REFL	Reflection yield	1	1	NA	-1	0			$b^{+5} + b^{+5} \rightarrow b^{+5}$
18	REFL	Reflection yield	5	1	NA	-1	0			$b^{+5} + d^{+1} \rightarrow d^{+1}$
19	REFL	Reflection yield	1	1	NA	-1	0			$b^{+5} + h^{+1} \rightarrow h^{+1}$
20	REFL	Reflection yield	1	1	NA	-1	0			$b^{+5} + t^{+1} \rightarrow t^{+1}$

3.7.4.9 Data for C

The data is stored in SHOT=6 RUN=4
Description:

```
['AMNS data created by version 456 of the amns_driver system']
```

Charge and mass:

```
ZN=6
AMN=12.011
```

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}+2e^{-1}\rightarrow C^{z-1}+e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}+e^{-1}\rightarrow C^{z+1}+2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}+H\|D\|T^{+0}\rightarrow C^{z-1}+H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0}\rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + ar^{+18} \rightarrow c^{+6}$
16	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + c^{+6} \rightarrow c^{+6}$
17	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + d^{+1} \rightarrow c^{+6}$
18	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + h^{+1} \rightarrow c^{+6}$
19	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + he4^{+2} \rightarrow c^{+6}$
20	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + kr^{+36} \rightarrow c^{+6}$
21	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + n^{+7} \rightarrow c^{+6}$
22	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + ne^{+10} \rightarrow c^{+6}$
23	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + o^{+8} \rightarrow c^{+6}$
24	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + t^{+1} \rightarrow c^{+6}$
25	SPUT	Physical sputtering yield	1	1	NA	-1	0			$c^{+6} + xe^{+54} \rightarrow c^{+6}$
26	REFL	Reflection yield	24	1	NA	-1	0			$c^{+6} + 4he^{+2} \rightarrow 4he^{+2}$
27	REFL	Reflection yield	6	1	NA	-1	0			$c^{+6} + c^{+6} \rightarrow c^{+6}$
28	REFL	Reflection yield	17	1	NA	-1	0			$c^{+6} + d^{+1} \rightarrow d^{+1}$
29	REFL	Reflection yield	14	1	NA	-1	0			$c^{+6} + h^{+1} \rightarrow h^{+1}$
30	REFL	Reflection yield	1	1	NA	-1	0			$c^{+6} + n^{+7} \rightarrow n^{+7}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
31	REFL	Reflection yield	13	1	NA	-1	0			$c^{+6} + t^{+1} \rightarrow t^{+1}$

3.7.4.10 Data for N

The data is stored in SHOT=7 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.4.11 Data for O

The data is stored in SHOT=8 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.4.12 Data for F

The data is stored in SHOT=9 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.4.13 Data for Ne

The data is stored in SHOT=10 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.4.14 Data for Al

The data is stored in SHOT=13 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.4.15 Data for Si

The data is stored in SHOT=14 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.4.16 Data for S

The data is stored in SHOT=16 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.4.17 Data for Cl

The data is stored in SHOT=17 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.4.18 Data for Ar

The data is stored in SHOT=18 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.4.19 Data for Cr

The data is stored in SHOT=24 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.4.20 Data for Fe

The data is stored in SHOT=26 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.4.21 Data for Ni

The data is stored in SHOT=28 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.4.22 Data for Cu

The data is stored in SHOT=29 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.4.23 Data for Ge

The data is stored in SHOT=32 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.4.24 Data for Kr

The data is stored in SHOT=36 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.4.25 Data for Mo

The data is stored in SHOT=42 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.4.26 Data for Xe

The data is stored in SHOT=54 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.4.27 Data for W

The data is stored in SHOT=74 RUN=4
Description:

['AMNS data created by version 456 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

456

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + ar^{+18} \rightarrow w^{+74}$
20	SPUT	Physical sputtering yield	9	1	NA	-1	0			$w^{+74} + d^{+1} \rightarrow w^{+74}$
21	SPUT	Physical sputtering yield	7	1	NA	-1	0			$w^{+74} + h^{+1} \rightarrow w^{+74}$
22	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + he4^{+2} \rightarrow w^{+74}$
23	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + kr^{+36} \rightarrow w^{+74}$
24	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + n^{+7} \rightarrow w^{+74}$
25	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + ne^{+10} \rightarrow w^{+74}$
26	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + o^{+8} \rightarrow w^{+74}$
27	SPUT	Physical sputtering yield	9	1	NA	-1	0			$w^{+74} + t^{+1} \rightarrow w^{+74}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
28	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + w^{+74} \rightarrow w^{+74}$
29	SPUT	Physical sputtering yield	1	1	NA	-1	0			$w^{+74} + xe^{+54} \rightarrow w^{+74}$
30	REFL	Reflection yield	24	1	NA	-1	0			$w^{+74} + 4he^{+2} \rightarrow 4he^{+2}$
31	REFL	Reflection yield	21	1	NA	-1	0			$w^{+74} + ar^{+18} \rightarrow ar^{+18}$
32	REFL	Reflection yield	14	1	NA	-1	0			$w^{+74} + d^{+1} \rightarrow d^{+1}$
33	REFL	Reflection yield	19	1	NA	-1	0			$w^{+74} + h^{+1} \rightarrow h^{+1}$
34	REFL	Reflection yield	1	1	NA	-1	0			$w^{+74} + kr^{+36} \rightarrow kr^{+36}$
35	REFL	Reflection yield	18	1	NA	-1	0			$w^{+74} + n^{+7} \rightarrow n^{+7}$
36	REFL	Reflection yield	17	1	NA	-1	0			$w^{+74} + ne^{+10} \rightarrow ne^{+10}$
37	REFL	Reflection yield	15	1	NA	-1	0			$w^{+74} + t^{+1} \rightarrow t^{+1}$
38	REFL	Reflection yield	6	1	NA	-1	0			$w^{+74} + w^{+74} \rightarrow w^{+74}$
39	REFL	Reflection yield	2	1	NA	-1	0			$w^{+74} + xe^{+54} \rightarrow xe^{+54}$

3.7.5 Release 5

Description:

['AMNS data created by version 456M of the amns_driver system']

Date:

2015-07-01 09:03:39.692 +0200

3.7.5.1 Data for H

The data is stored in SHOT=1 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.5.2 Data for 2-H

The data is stored in SHOT=2001 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.5.3 Data for 3-H

The data is stored in SHOT=3001 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \to He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$

3.7.5.4 Data for He

The data is stored in SHOT=2 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \to He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \to He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \to He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.5.5 Data for 3-He

The data is stored in SHOT=3002 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.7.5.6 Data for Li

The data is stored in SHOT=3 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.5.7 Data for Be

The data is stored in SHOT=4 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + He4 → Be
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Kr → Be
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + N → Be
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.5.8 Data for B

The data is stored in SHOT=5 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \to B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \to B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \to B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \to B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \to B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \to B$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \to B$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \to B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \to B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \to B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \to He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \to B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \to D$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \to H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \to T$

3.7.5.9 Data for C

The data is stored in SHOT=6 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \to C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \to C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \to C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \to C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \to C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \to C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \to C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \to C$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.5.10 Data for N

The data is stored in SHOT=7 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \to N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \to N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \to N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.5.11 Data for O

The data is stored in SHOT=8 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.5.12 Data for F

The data is stored in SHOT=9 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \to F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \to F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \to F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$

3.7.5.13 Data for Ne

The data is stored in SHOT=10 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.5.14 Data for Al

The data is stored in SHOT=13 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/acd89/acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/scd89/scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../../../data/atomic/adas/adf11/ccd89/ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/prb89/prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../../../data/atomic/adas/adf11/plt89/plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../../../data/atomic/adas/adf11/zcd89/zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../../../data/atomic/adas/adf11/ycd89/ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.5.15 Data for Si

The data is stored in SHOT=14 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.5.16 Data for S

The data is stored in SHOT=16 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.5.17 Data for Cl

The data is stored in SHOT=17 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.5.18 Data for Ar

The data is stored in SHOT=18 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.5.19 Data for Cr

The data is stored in SHOT=24 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.5.20 Data for Fe

The data is stored in SHOT=26 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.5.21 Data for Ni

The data is stored in SHOT=28 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.5.22 Data for Cu

The data is stored in SHOT=29 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.5.23 Data for Ge

The data is stored in SHOT=32 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.5.24 Data for Kr

The data is stored in SHOT=36 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.5.25 Data for Mo

The data is stored in SHOT=42 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.5.26 Data for Xe

The data is stored in SHOT=54 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.5.27 Data for W

The data is stored in SHOT=74 RUN=5
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \to W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \to W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \to W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \to W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \to W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ne → W
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + O → W
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + T → W
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + W → W
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Xe → W
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + He → He
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ar → Ar
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + D → D
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + H → H
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Kr → Kr

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \to N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \to Ne$
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.6 Release 6

Description:

['AMNS data created by version 456M of the amns_driver system']

Date:

2015-07-01 11:10:41.030 +0200

3.7.6.1 Data for H

The data is stored in SHOT=1 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.6.2 Data for 2-H

The data is stored in SHOT=2001 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.6.3 Data for 3-H

The data is stored in SHOT=3001 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$

3.7.6.4 Data for He

The data is stored in SHOT=2 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.6.5 Data for 3-He

The data is stored in SHOT=3002 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.7.6.6 Data for Li

The data is stored in SHOT=3 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.6.7 Data for Be

The data is stored in SHOT=4 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Kr → Be
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + N → Be
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.6.8 Data for B

The data is stored in SHOT=5 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=5 AMN=10.811

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + D → B
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + H → B
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.6.9 Data for C

The data is stored in SHOT=6 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.7.6.10 Data for N

The data is stored in SHOT=7 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.6.11 Data for O

The data is stored in SHOT=8 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

3.7.6.12 Data for F

The data is stored in SHOT=9 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.6.13 Data for Ne

The data is stored in SHOT=10 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.6.14 Data for Al

The data is stored in SHOT=13 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \to Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

3.7.6.15 Data for Si

The data is stored in SHOT=14 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \to Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

3.7.6.16 Data for S

The data is stored in SHOT=16 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.6.17 Data for Cl

The data is stored in SHOT=17 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.6.18 Data for Ar

The data is stored in SHOT=18 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.6.19 Data for Cr

The data is stored in SHOT=24 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.6.20 Data for Fe

The data is stored in SHOT=26 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.6.21 Data for Ni

The data is stored in SHOT=28 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.6.22 Data for Cu

The data is stored in SHOT=29 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.6.23 Data for Ge

The data is stored in SHOT=32 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.6.24 Data for Kr

The data is stored in SHOT=36 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.6.25 Data for Mo

The data is stored in SHOT=42 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.6.26 Data for Xe

The data is stored in SHOT=54 RUN=6
Description:

```
['AMNS data created by version 456M of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
456M
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.6.27 Data for W

The data is stored in SHOT=74 RUN=6
Description:

['AMNS data created by version 456M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

456M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \to W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \to W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \to W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ar → W
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + D → W
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + H → W
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + He4 → W
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Kr → W
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \to Ne$
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.7 Release 7

Description:

['AMNS data created by version 458M of the amns_driver system']

Date:

2015-07-01 18:02:08.145 +0200

3.7.7.1 Data for H

The data is stored in SHOT=1 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.7.2 Data for 2-H

The data is stored in SHOT=2001 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.7.3 Data for 3-H

The data is stored in SHOT=3001 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \to He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow He + n$

3.7.7.4 Data for He

The data is stored in SHOT=2 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \to He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \to He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.7.5 Data for 3-He

The data is stored in SHOT=3002 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{H}$

3.7.7.6 Data for Li

The data is stored in SHOT=3 RUN=7
Description:

> ['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

> ZN=3
> AMN=6.941

Version:

> 458M

Data source:

> Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.7.7 Data for Be

The data is stored in SHOT=4 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \to Be$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \to Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \to Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \to Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \to He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \to Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \to D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \to H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.7.8 Data for B

The data is stored in SHOT=5 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \to B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \to B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \to B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \to B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \to B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \to B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \to B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.7.9 Data for C

The data is stored in SHOT=6 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.7.7.10 Data for N

The data is stored in SHOT=7 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.7.11 Data for O

The data is stored in SHOT=8 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \to O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \to O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \to O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \to O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \to O^{+0}$

3.7.7.12 Data for F

The data is stored in SHOT=9 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.7.13 Data for Ne

The data is stored in SHOT=10 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.7.14 Data for Al

The data is stored in SHOT=13 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.7.15 Data for Si

The data is stored in SHOT=14 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.7.16 Data for S

The data is stored in SHOT=16 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.7.17 Data for Cl

The data is stored in SHOT=17 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.7.18 Data for Ar

The data is stored in SHOT=18 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.7.19 Data for Cr

The data is stored in SHOT=24 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.7.20 Data for Fe

The data is stored in SHOT=26 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.7.21 Data for Ni

The data is stored in SHOT=28 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.7.22 Data for Cu

The data is stored in SHOT=29 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.7.23 Data for Ge

The data is stored in SHOT=32 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.7.24 Data for Kr

The data is stored in SHOT=36 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.7.25 Data for Mo

The data is stored in SHOT=42 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

3.7.7.26 Data for Xe

The data is stored in SHOT=54 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		

3.7.7.27 Data for W

The data is stored in SHOT=74 RUN=7
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \to W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \to W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \to W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \to W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \to W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \to W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \to W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \to W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \to W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \to W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \to W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \to W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \to W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + O → W
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + T → W
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + W → W
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Xe → W
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + He → He
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ar → Ar
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + D → D
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + H → H
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Kr → Kr
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + N → N
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ne → Ne

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.8 Release 8

Description:

['AMNS data created by version 458M of the amns_driver system']

Date:

2015-07-01 18:54:23.526 +0200

3.7.8.1 Data for H

The data is stored in SHOT=1 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.8.2 Data for 2-H

The data is stored in SHOT=2001 RUN=8
Description:

```
['AMNS data created by version 458M of the amns_driver system']
```

Charge and mass:

```
ZN=1
AMN=2.0
```

Version:

```
458M
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to T + H$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to He + n$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to T + H$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to He + n$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to T + H$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to He + n$

3.7.8.3 Data for 3-H

The data is stored in SHOT=3001 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$T + D \to He + n$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$T + D \to He + n$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to He + n$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{He} + \mathrm{n}$

3.7.8.4 Data for He

The data is stored in SHOT=2 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{z+0} + He^{+0} \rightarrow He^{z-1} + He^{+1}$

3.7.8.5 Data for 3-He

The data is stored in SHOT=3002 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$He + D \to He + H$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$He + D \to He + H$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to He + H$

3.7.8.6 Data for Li

The data is stored in SHOT=3 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.8.7 Data for Be

The data is stored in SHOT=4 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.8.8 Data for B

The data is stored in SHOT=5 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.8.9 Data for C

The data is stored in SHOT=6 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.8.10 Data for N

The data is stored in SHOT=7 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.8.11 Data for O

The data is stored in SHOT=8 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \to O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \to O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \to O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \to O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \to O^{+0}$

3.7.8.12 Data for F

The data is stored in SHOT=9 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.8.13 Data for Ne

The data is stored in SHOT=10 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{z+0} + Ne^{+0} \rightarrow Ne^{z-1} + Ne^{+1}$

3.7.8.14 Data for Al

The data is stored in SHOT=13 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \to Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

3.7.8.15 Data for Si

The data is stored in SHOT=14 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.8.16 Data for S

The data is stored in SHOT=16 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.8.17 Data for Cl

The data is stored in SHOT=17 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.8.18 Data for Ar

The data is stored in SHOT=18 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{z+0} + Ar^{+0} \rightarrow Ar^{z-1} + Ar^{+1}$

3.7.8.19 Data for Cr

The data is stored in SHOT=24 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=24 AMN=51.9961

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.8.20 Data for Fe

The data is stored in SHOT=26 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.8.21 Data for Ni

The data is stored in SHOT=28 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.8.22 Data for Cu

The data is stored in SHOT=29 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.8.23 Data for Ge

The data is stored in SHOT=32 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.8.24 Data for Kr

The data is stored in SHOT=36 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{z+0} + Kr^{+0} \rightarrow Kr^{z-1} + Kr^{+1}$

3.7.8.25 Data for Mo

The data is stored in SHOT=42 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.8.26 Data for Xe

The data is stored in SHOT=54 RUN=8
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{z+0} + Xe^{+0} \rightarrow Xe^{z-1} + Xe^{+1}$

3.7.8.27 Data for W

The data is stored in SHOT=74 RUN=8
Description:

> ['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

> ZN=74
> AMN=183.84

Version:

> 458M

Data source:

> Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ar → W
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + D → W
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + H → W
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + He4 → W
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Kr → W
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ne → W

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + T → T
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + W → W
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Xe → Xe

3.7.9 Release 9

Description:

['AMNS data created by version 458M of the amns_driver system']

Date:

2015-07-02 09:53:35.000 +0200

3.7.9.1 Data for H

The data is stored in SHOT=1 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.9.2 Data for 2-H

The data is stored in SHOT=2001 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.7.9.3 Data for 3-H

The data is stored in SHOT=3001 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow n + He$

3.7.9.4 Data for He

The data is stored in SHOT=2 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.9.5 Data for 3-He

The data is stored in SHOT=3002 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \rightarrow H + He$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \rightarrow H + He$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \rightarrow H + He$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \rightarrow H + He$

3.7.9.6 Data for Li

The data is stored in SHOT=3 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \rightarrow Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.9.7 Data for Be

The data is stored in SHOT=4 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \to Be$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \to Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \to Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \to Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \to He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \to Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \to D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \to H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.9.8 Data for B

The data is stored in SHOT=5 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \to B$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \to B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \to B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \to B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \to He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \to B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \to D$
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \to H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \to T$

3.7.9.9 Data for C

The data is stored in SHOT=6 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.7.9.10 Data for N

The data is stored in SHOT=7 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.9.11 Data for O

The data is stored in SHOT=8 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.9.12 Data for F

The data is stored in SHOT=9 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.9.13 Data for Ne

The data is stored in SHOT=10 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.9.14 Data for Al

The data is stored in SHOT=13 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.9.15 Data for Si

The data is stored in SHOT=14 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.9.16 Data for S

The data is stored in SHOT=16 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.9.17 Data for Cl

The data is stored in SHOT=17 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.9.18 Data for Ar

The data is stored in SHOT=18 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.9.19 Data for Cr

The data is stored in SHOT=24 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.9.20 Data for Fe

The data is stored in SHOT=26 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.9.21 Data for Ni

The data is stored in SHOT=28 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.9.22 Data for Cu

The data is stored in SHOT=29 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.9.23 Data for Ge

The data is stored in SHOT=32 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

3.7.9.24 Data for Kr

The data is stored in SHOT=36 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \to Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \to Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.7.9.25 Data for Mo

The data is stored in SHOT=42 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.9.26 Data for Xe

The data is stored in SHOT=54 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \to Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \to Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \to Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \to Xe^{+0} + Xe^{+1}$

3.7.9.27 Data for W

The data is stored in SHOT=74 RUN=9
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.7.10 Release 10

Description:

['AMNS data created by version 458M of the amns_driver system']

Date:

2015-07-02 10:59:17.469 +0200

3.7.10.1 Data for H

The data is stored in SHOT=1 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.10.2 Data for 2-H

The data is stored in SHOT=2001 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(D,p)T	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to H + T$
2	D(D,n)^3He	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to n + He$
3	tt D(D,p)T	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to H + T$
4	tt D(D,n)^3He	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to n + He$
5	bt D(D,p)T	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to H + T$
6	bt D(D,n)^3He	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to n + He$

3.7.10.3 Data for 3-H

The data is stored in SHOT=3001 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(T,n)^4He	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \to n + He$
2	tt D(T,n)^4He	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to n + He$
3	bt D(T,n)^4He	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \to n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	bt T(D,n)^4He	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T + D \to n + He}$

3.7.10.4 Data for He

The data is stored in SHOT=2 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + 2\mathrm{e}^{-1} \to \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \to \mathrm{He}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H\|D\|T}^{+0} \to \mathrm{He}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \to \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \to \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \to \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \to \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \to \mathrm{He}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \to He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \to He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \to He^{+0} + He^{+1}$

3.7.10.5 Data for 3-He

The data is stored in SHOT=3002 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	D(^3He,p)^4He	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$
2	tt D(^3He,p)^4He	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$
3	bt ^3He(D,p)^4He	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \to \mathrm{H} + \mathrm{He}$
4	bt D(^3He,p)^4He	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$

3.7.10.6 Data for Li

The data is stored in SHOT=3 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \to \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \to \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \to \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \to \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \to \mathrm{Li}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.10.7 Data for Be

The data is stored in SHOT=4 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \to Be$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \to Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \to Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \to Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \to He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \to Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \to D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \to H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.10.8 Data for B

The data is stored in SHOT=5 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \rightarrow B$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \rightarrow B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \rightarrow B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \rightarrow B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \rightarrow He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \rightarrow B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \rightarrow D$
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \rightarrow H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \rightarrow T$

3.7.10.9 Data for C

The data is stored in SHOT=6 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \to C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \to C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \to C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \to C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \to C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \to C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \to C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \to C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \to C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \to C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \to C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.10.10 Data for N

The data is stored in SHOT=7 RUN=10
Description:

```
['AMNS data created by version 458M of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \to N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \to N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \to N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \to N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \to N^{+0}$

3.7.10.11 Data for O

The data is stored in SHOT=8 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.10.12 Data for F

The data is stored in SHOT=9 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.10.13 Data for Ne

The data is stored in SHOT=10 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.10.14 Data for Al

The data is stored in SHOT=13 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.10.15 Data for Si

The data is stored in SHOT=14 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.10.16 Data for S

The data is stored in SHOT=16 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.10.17 Data for Cl

The data is stored in SHOT=17 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.10.18 Data for Ar

The data is stored in SHOT=18 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIMUNITS		COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.10.19 Data for Cr

The data is stored in SHOT=24 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integereated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.10.20 Data for Fe

The data is stored in SHOT=26 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \to Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \to Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \to Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$

3.7.10.21 Data for Ni

The data is stored in SHOT=28 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.10.22 Data for Cu

The data is stored in SHOT=29 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.10.23 Data for Ge

The data is stored in SHOT=32 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.10.24 Data for Kr

The data is stored in SHOT=36 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \to Kr^{+0} + Kr^{+1}$

3.7.10.25 Data for Mo

The data is stored in SHOT=42 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.10.26 Data for Xe

The data is stored in SHOT=54 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.10.27 Data for W

The data is stored in SHOT=74 RUN=10
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.11 Release 11

Description:

['AMNS data created by version 458M of the amns_driver system']

Date:

2015-07-02 11:12:38.071 +0200

3.7.11.1 Data for H

The data is stored in SHOT=1 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\vert D\vert T^{+0} \rightarrow H^{z-1} + H\vert D\vert T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.11.2 Data for 2-H

The data is stored in SHOT=2001 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$
3	NUC_TT	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	NUC_TT	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.7.11.3 Data for 3-H

The data is stored in SHOT=3001 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	NUC_TT	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow n + He$

3.7.11.4 Data for He

The data is stored in SHOT=2 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.11.5 Data for 3-He

The data is stored in SHOT=3002 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \to H + He$
2	NUC_TT	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \to H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \to H + He$

3.7.11.6 Data for Li

The data is stored in SHOT=3 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.11.7 Data for Be

The data is stored in SHOT=4 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \rightarrow Be$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \rightarrow Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \rightarrow Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \rightarrow Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \rightarrow He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \rightarrow Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \rightarrow D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \rightarrow H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \rightarrow T$

3.7.11.8 Data for B

The data is stored in SHOT=5 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \to B$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \to B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \to B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \to B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \to He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \to B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \to D$
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \to H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \to T$

3.7.11.9 Data for C

The data is stored in SHOT=6 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \to C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \to C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \to C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \to C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \to C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \to C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \to C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \to C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \to C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \to C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \to C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.7.11.10 Data for N

The data is stored in SHOT=7 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \to N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \to N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \to N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \to N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \to N^{+0}$

3.7.11.11 Data for O

The data is stored in SHOT=8 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.11.12 Data for F

The data is stored in SHOT=9 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.11.13 Data for Ne

The data is stored in SHOT=10 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.11.14 Data for Al

The data is stored in SHOT=13 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.11.15 Data for Si

The data is stored in SHOT=14 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.11.16 Data for S

The data is stored in SHOT=16 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.11.17 Data for Cl

The data is stored in SHOT=17 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.11.18 Data for Ar

The data is stored in SHOT=18 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.11.19 Data for Cr

The data is stored in SHOT=24 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.11.20 Data for Fe

The data is stored in SHOT=26 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.11.21 Data for Ni

The data is stored in SHOT=28 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.11.22 Data for Cu

The data is stored in SHOT=29 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.11.23 Data for Ge

The data is stored in SHOT=32 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

3.7.11.24 Data for Kr

The data is stored in SHOT=36 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \to Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \to Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \to Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \to Kr^{+0} + Kr^{+1}$

3.7.11.25 Data for Mo

The data is stored in SHOT=42 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.11.26 Data for Xe

The data is stored in SHOT=54 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.11.27 Data for W

The data is stored in SHOT=74 RUN=11
Description:

['AMNS data created by version 458M of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

458M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + O → W
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + T → W
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + W → W
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Xe → W
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + He → He
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ar → Ar
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + D → D
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + H → H
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Kr → Kr
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + N → N
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Ne → Ne

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.7.12 Release 12

Description:

['AMNS data created by version 459 of the amns_driver system']

Date:

2015-07-02 13:44:23.912 +0200

3.7.12.1 Data for H

The data is stored in SHOT=1 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \to H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\vert D\vert T^{+0} \to H^{z-1} + H\vert D\vert T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \to H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \to H^{+0}$

3.7.12.2 Data for 2-H

The data is stored in SHOT=2001 RUN=12
Description:

```
['AMNS data created by version 459 of the amns_driver system']
```

Charge and mass:

```
ZN=1
AMN=2.0
```

Version:

```
459
```

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$
3	NUC_TT	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	NUC_TT	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.7.12.3 Data for 3-H

The data is stored in SHOT=3001 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	NUC_TT	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T} + \mathrm{D} \rightarrow \mathrm{n} + \mathrm{He}$

3.7.12.4 Data for He

The data is stored in SHOT=2 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{He}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{He}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{He}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$\mathrm{He}^{z+0} \rightarrow \mathrm{He}^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.12.5 Data for 3-He

The data is stored in SHOT=3002 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \to H + He$
2	NUC_TT	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \to H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \to H + He$

3.7.12.6 Data for Li

The data is stored in SHOT=3 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.12.7 Data for Be

The data is stored in SHOT=4 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=4 AMN=9.012182

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.12.8 Data for B

The data is stored in SHOT=5 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.12.9 Data for C

The data is stored in SHOT=6 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \to C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \to C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \to C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \to C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.12.10 Data for N

The data is stored in SHOT=7 RUN=12
Description:

```
['AMNS data created by version 459 of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.12.11 Data for O

The data is stored in SHOT=8 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}+2e^{-1}\rightarrow O^{z-1}+e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}+e^{-1}\rightarrow O^{z+1}+2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}+H\|D\|T^{+0}\rightarrow O^{z-1}+H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}\rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}\rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}\rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}\rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0}\rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0}\rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0}\rightarrow O^{+0}$

3.7.12.12 Data for F

The data is stored in SHOT=9 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.12.13 Data for Ne

The data is stored in SHOT=10 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.12.14 Data for Al

The data is stored in SHOT=13 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.12.15 Data for Si

The data is stored in SHOT=14 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.12.16 Data for S

The data is stored in SHOT=16 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.12.17 Data for Cl

The data is stored in SHOT=17 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.12.18 Data for Ar

The data is stored in SHOT=18 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.12.19 Data for Cr

The data is stored in SHOT=24 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.12.20 Data for Fe

The data is stored in SHOT=26 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.12.21 Data for Ni

The data is stored in SHOT=28 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.12.22 Data for Cu

The data is stored in SHOT=29 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.12.23 Data for Ge

The data is stored in SHOT=32 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.12.24 Data for Kr

The data is stored in SHOT=36 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.7.12.25 Data for Mo

The data is stored in SHOT=42 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.12.26 Data for Xe

The data is stored in SHOT=54 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.12.27 Data for W

The data is stored in SHOT=74 RUN=12
Description:

['AMNS data created by version 459 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

459

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ar → W
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + D → W
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + H → W
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + He4 → W
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Kr → W
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ne → W

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.13 Release 13

Description:

['AMNS data created by version 467 of the amns_driver system']

Date:

2015-07-20 17:49:50.587 +0200

3.7.13.1 Data for H

The data is stored in SHOT=1 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.13.2 Data for 2-H

The data is stored in SHOT=2001 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to n + He$
3	NUC_TT	cross section for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to H + T$
4	NUC_TT	cross section for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to n + He$

3.7.13.3 Data for 3-H

The data is stored in SHOT=3001 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \to n + He$
2	NUC_TT	cross section for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \to n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow n + He$

3.7.13.4 Data for He

The data is stored in SHOT=2 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.13.5 Data for 3-He

The data is stored in SHOT=3002 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \to H + He$
2	NUC_TT	cross section for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \to H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \to H + He$

3.7.13.6 Data for Li

The data is stored in SHOT=3 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.13.7 Data for Be

The data is stored in SHOT=4 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.13.8 Data for B

The data is stored in SHOT=5 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.13.9 Data for C

The data is stored in SHOT=6 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \rightarrow C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \rightarrow C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \rightarrow He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \rightarrow C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \rightarrow D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \rightarrow H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \rightarrow N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \rightarrow T$

3.7.13.10 Data for N

The data is stored in SHOT=7 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \to N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \to N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \to N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \to N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \to N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \to N^{+0}$

3.7.13.11 Data for O

The data is stored in SHOT=8 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.13.12 Data for F

The data is stored in SHOT=9 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.13.13 Data for Ne

The data is stored in SHOT=10 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \to Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \to Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \to Ne^{+0} + Ne^{+1}$

3.7.13.14 Data for Al

The data is stored in SHOT=13 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.13.15 Data for Si

The data is stored in SHOT=14 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.13.16 Data for S

The data is stored in SHOT=16 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.13.17 Data for Cl

The data is stored in SHOT=17 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \to Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$

3.7.13.18 Data for Ar

The data is stored in SHOT=18 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \to Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \to Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.13.19 Data for Cr

The data is stored in SHOT=24 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.13.20 Data for Fe

The data is stored in SHOT=26 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.13.21 Data for Ni

The data is stored in SHOT=28 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.13.22 Data for Cu

The data is stored in SHOT=29 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

467

Data source:

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IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.13.23 Data for Ge

The data is stored in SHOT=32 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

467

Data source:

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IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.13.24 Data for Kr

The data is stored in SHOT=36 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

467

Data source:

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IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \to Kr^{+0} + Kr^{+1}$

3.7.13.25 Data for Mo

The data is stored in SHOT=42 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

3.7.13.26 Data for Xe

The data is stored in SHOT=54 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.13.27 Data for W

The data is stored in SHOT=74 RUN=13
Description:

['AMNS data created by version 467 of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

467

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ar → W
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + D → W
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + H → W
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + He4 → W
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Kr → W
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + N → W
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		W + Ne → W

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.7.14 Release 14

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2017-11-22 11:31:42.530 +0100

3.7.14.1 Data for H

The data is stored in SHOT=1 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.14.2 Data for 4674

The data is stored in SHOT=4674 RUN=1
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \to D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \to Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \to C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \to W^{+74} + Be^{+4} + C$

3.7.14.3 Data for 2-H

The data is stored in SHOT=2001 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to n + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.7.14.4 Data for 3-H

The data is stored in SHOT=3001 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LA-BELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow n + He$

3.7.14.5 Data for He

The data is stored in SHOT=2 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.14.6 Data for 3-He

The data is stored in SHOT=3002 RUN=14
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=2
AMN=3.0
```

Version:

```
595
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling
```

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \rightarrow H + He$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \rightarrow H + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \rightarrow \mathrm{H} + \mathrm{He}$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D} + \mathrm{He} \rightarrow \mathrm{H} + \mathrm{He}$

3.7.14.7 Data for Li

The data is stored in SHOT=3 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.14.8 Data for Be

The data is stored in SHOT=4 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \rightarrow Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \to Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \to Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \to Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \to He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \to Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \to D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \to H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.14.9 Data for B

The data is stored in SHOT=5 RUN=14
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=5
AMN=10.811
```

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \to B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \to B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \to B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \to He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \to B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \to D$
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \to H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \to T$

3.7.14.10 Data for C

The data is stored in SHOT=6 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \to C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \to C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \to C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \to C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \to C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \to C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \to C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \to C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \to C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \to C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \to C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.14.11 Data for N

The data is stored in SHOT=7 RUN=14
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.14.12 Data for O

The data is stored in SHOT=8 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.14.13 Data for F

The data is stored in SHOT=9 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.14.14 Data for Ne

The data is stored in SHOT=10 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.14.15 Data for Al

The data is stored in SHOT=13 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \to Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

3.7.14.16 Data for Si

The data is stored in SHOT=14 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.14.17 Data for S

The data is stored in SHOT=16 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.14.18 Data for Cl

The data is stored in SHOT=17 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \to Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$

3.7.14.19 Data for Ar

The data is stored in SHOT=18 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \to Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \to Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.14.20 Data for Cr

The data is stored in SHOT=24 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.14.21 Data for Fe

The data is stored in SHOT=26 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.14.22 Data for Ni

The data is stored in SHOT=28 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.14.23 Data for Cu

The data is stored in SHOT=29 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.14.24 Data for Ge

The data is stored in SHOT=32 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32 AMN=72.61

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.14.25 Data for Kr

The data is stored in SHOT=36 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \to Kr^{+0} + Kr^{+1}$

3.7.14.26 Data for Mo

The data is stored in SHOT=42 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.14.27 Data for Xe

The data is stored in SHOT=54 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \to Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \to Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \to Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \to Xe^{+0} + Xe^{+1}$

3.7.14.28 Data for W

The data is stored in SHOT=74 RUN=14
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

595

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + T → T
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + W → W
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		W + Xe → Xe

3.7.15 Release 15

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2018-05-03 22:29:43.441 +0200

3.7.15.1 Data for H

The data is stored in SHOT=1 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \to H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \to H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \to H^{+0}$

3.7.15.2 Data for 4674

The data is stored in SHOT=4674 RUN=2
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \to D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \to Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \to C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \to W^{+74} + Be^{+4} + C$

3.7.15.3 Data for 2-H

The data is stored in SHOT=2001 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D+D \to H+T}$
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D+D \to n+He}$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D+D \to H+T}$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D+D \to n+He}$

3.7.15.4 Data for 3-H

The data is stored in SHOT=3001 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$\mathrm{D+T \to n+He}$
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D+T \to n+He}$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D+T \to n+He}$
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{T+D \to n+He}$
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			$\mathrm{T+T \to 2n+He}$
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D+T \to 2n+He}$

3.7.15.5 Data for He

The data is stored in SHOT=2 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2 AMN=4.002602

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.15.6 Data for 3-He

The data is stored in SHOT=3002 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$D + He \to H + He$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + He \to H + He$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$He + D \to H + He$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + He \to H + He$

3.7.15.7 Data for Li

The data is stored in SHOT=3 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + 2e^{-1} \to Li^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + e^{-1} \to Li^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} + H\|D\|T^{+0} \to Li^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \to Li^{z+0}$

3.7.15.8 Data for Be

The data is stored in SHOT=4 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \to Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \to Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \to Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ne \to Be$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + O \to Be$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + T \to Be$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Xe \to Be$
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + He \to He$
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + Be \to Be$
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + D \to D$
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + H \to H$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$Be + T \to T$

3.7.15.9 Data for B

The data is stored in SHOT=5 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + He4 \rightarrow B$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + Ne \rightarrow B$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + O \rightarrow B$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + T \rightarrow B$
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + He \rightarrow He$
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + B \rightarrow B$
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + D \rightarrow D$
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + H \rightarrow H$
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$B + T \rightarrow T$

3.7.15.10 Data for C

The data is stored in SHOT=6 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \to C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \to C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \to C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \to C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \to C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \to C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \to C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \to C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \to C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \to C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \to C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + T \to C$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Xe \to C$
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + He \to He$
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + C \to C$
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + D \to D$
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + H \to H$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + N \to N$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$C + T \to T$

3.7.15.11 Data for N

The data is stored in SHOT=7 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.15.12 Data for O

The data is stored in SHOT=8 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \to O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \to O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \to O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \to O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \to O^{+0}$

3.7.15.13 Data for F

The data is stored in SHOT=9 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.15.14 Data for Ne

The data is stored in SHOT=10 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \rightarrow Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \rightarrow Ne^{+0} + Ne^{+1}$

3.7.15.15 Data for Al

The data is stored in SHOT=13 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \rightarrow Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \rightarrow Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \to Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \to Al^{z+0}$

3.7.15.16 Data for Si

The data is stored in SHOT=14 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \to Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \to Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \to Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \to Si^{z+0}$

3.7.15.17 Data for S

The data is stored in SHOT=16 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \to S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \to S^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.15.18 Data for Cl

The data is stored in SHOT=17 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \to Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$

3.7.15.19 Data for Ar

The data is stored in SHOT=18 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \to Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \to Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.15.20 Data for Cr

The data is stored in SHOT=24 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.15.21 Data for Fe

The data is stored in SHOT=26 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \to Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \to Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \to Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \to Fe^{z+0}$

3.7.15.22 Data for Ni

The data is stored in SHOT=28 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.15.23 Data for Cu

The data is stored in SHOT=29 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.15.24 Data for Ge

The data is stored in SHOT=32 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.15.25 Data for Kr

The data is stored in SHOT=36 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.7.15.26 Data for Mo

The data is stored in SHOT=42 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.15.27 Data for Xe

The data is stored in SHOT=54 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.15.28 Data for W

The data is stored in SHOT=74 RUN=15
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.7.16 Release 16

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2018-05-03 23:03:04.655 +0200

3.7.16.1 Data for H

The data is stored in SHOT=1 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \to H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \to H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \to H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \to H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \to H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \to H^{+0}$

3.7.16.2 Data for 4674

The data is stored in SHOT=4674 RUN=3
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \rightarrow D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \rightarrow Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \rightarrow C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \rightarrow W^{+74} + Be^{+4} + C$

3.7.16.3 Data for 2-H

The data is stored in SHOT=2001 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow H + T$
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \rightarrow n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \rightarrow n + He$

3.7.16.4 Data for 3-H

The data is stored in SHOT=3001 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \rightarrow n + He$
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \rightarrow n + He$
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \rightarrow n + He$
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			$T + T \rightarrow 2n + He$
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \rightarrow 2n + He$

3.7.16.5 Data for He

The data is stored in SHOT=2 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \to He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \to He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \to He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \to He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.16.6 Data for 3-He

The data is stored in SHOT=3002 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He} + \mathrm{D} \to \mathrm{H} + \mathrm{He}$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D} + \mathrm{He} \to \mathrm{H} + \mathrm{He}$

3.7.16.7 Data for Li

The data is stored in SHOT=3 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \to \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \to \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+0} \to \mathrm{Li}^{z-1} + \mathrm{H}\vert\mathrm{D}\vert\mathrm{T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \to \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \to \mathrm{Li}^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.16.8 Data for Be

The data is stored in SHOT=4 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \to Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \to Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \to Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \to Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \to Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \to Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \to Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \to Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \to Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \to Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.16.9 Data for B

The data is stored in SHOT=5 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.16.10 Data for C

The data is stored in SHOT=6 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + T → C
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + Xe → C
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + He → He
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + C → C
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + D → D
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + H → H
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + N → N
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + T → T

3.7.16.11 Data for N

The data is stored in SHOT=7 RUN=16
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.16.12 Data for O

The data is stored in SHOT=8 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \to O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \to O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \to O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \to O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \to O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \to O^{+0}$

3.7.16.13 Data for F

The data is stored in SHOT=9 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}+2e^{-1}\rightarrow F^{z-1}+e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}+e^{-1}\rightarrow F^{z+1}+2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}+H\|D\|T^{+0}\rightarrow F^{z-1}+H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}\rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}\rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}\rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}\rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0}\rightarrow F^{z+0}$

3.7.16.14 Data for Ne

The data is stored in SHOT=10 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \to Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \to Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \to Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \to Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \to Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \to Ne^{+0} + Ne^{+1}$

3.7.16.15 Data for Al

The data is stored in SHOT=13 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.16.16 Data for Si

The data is stored in SHOT=14 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.16.17 Data for S

The data is stored in SHOT=16 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \to S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \to S^{z+0}$

3.7.16.18 Data for Cl

The data is stored in SHOT=17 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \to Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \to Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \rightarrow Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \rightarrow Cl^{z+0}$

3.7.16.19 Data for Ar

The data is stored in SHOT=18 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \rightarrow Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \rightarrow Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.16.20 Data for Cr

The data is stored in SHOT=24 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.16.21 Data for Fe

The data is stored in SHOT=26 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.16.22 Data for Ni

The data is stored in SHOT=28 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28 AMN=58.6934

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.16.23 Data for Cu

The data is stored in SHOT=29 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.16.24 Data for Ge

The data is stored in SHOT=32 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.16.25 Data for Kr

The data is stored in SHOT=36 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.7.16.26 Data for Mo

The data is stored in SHOT=42 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.16.27 Data for Xe

The data is stored in SHOT=54 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \to Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \to Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \to Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \to Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \to Xe^{+0} + Xe^{+1}$

3.7.16.28 Data for W

The data is stored in SHOT=74 RUN=16
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

612M

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \to W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \to W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \to W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \to W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \to W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \to W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \to W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \to W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \to W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \to W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.7.17 Release 17

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2018-05-03 23:23:47.891 +0200

3.7.17.1 Data for H

The data is stored in SHOT=1 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.17.2 Data for 4674

The data is stored in SHOT=4674 RUN=4
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \rightarrow D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \rightarrow Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \rightarrow C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \rightarrow W^{+74} + Be^{+4} + C$

3.7.17.3 Data for 2-H

The data is stored in SHOT=2001 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \rightarrow H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \rightarrow n + He$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			D + D → H + T
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			D + D → n + He
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → H + T
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + D → n + He

3.7.17.4 Data for 3-H

The data is stored in SHOT=3001 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			D + T → n + He
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			D + T → n + He
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	D + T → n + He
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	T + D → n + He
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			T + T → 2n + He
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			D + T → 2n + He

3.7.17.5 Data for He

The data is stored in SHOT=2 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2 AMN=4.002602

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.17.6 Data for 3-He

The data is stored in SHOT=3002 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{D + He \rightarrow H + He}$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D + He \rightarrow H + He}$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He + D \rightarrow H + He}$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D + He \rightarrow H + He}$

3.7.17.7 Data for Li

The data is stored in SHOT=3 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Li}^{z+1} + 2\mathrm{e}^{-1}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{Li}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li}^{z+0} \rightarrow \mathrm{Li}^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.17.8 Data for Be

The data is stored in SHOT=4 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ar → Be
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Be → Be
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + D → Be
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + H → Be
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + He4 → Be
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Kr → Be
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + N → Be

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.17.9 Data for B

The data is stored in SHOT=5 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.17.10 Data for C

The data is stored in SHOT=6 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + T → C
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + Xe → C
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + He → He
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + C → C
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + D → D
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + H → H
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + N → N
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + T → T

3.7.17.11 Data for N

The data is stored in SHOT=7 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=7
AMN=14.00674

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.17.12 Data for O

The data is stored in SHOT=8 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.17.13 Data for F

The data is stored in SHOT=9 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9 AMN=18.9984032

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \rightarrow F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \rightarrow F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \rightarrow F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \rightarrow F^{z+0}$

3.7.17.14 Data for Ne

The data is stored in SHOT=10 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \to Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \to Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \to Ne^{+0} + Ne^{+1}$

3.7.17.15 Data for Al

The data is stored in SHOT=13 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.17.16 Data for Si

The data is stored in SHOT=14 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.17.17 Data for S

The data is stored in SHOT=16 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.17.18 Data for Cl

The data is stored in SHOT=17 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + H\|D\|T^{+0} \to Cl^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} \to Cl^{z+0}$

3.7.17.19 Data for Ar

The data is stored in SHOT=18 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + 2e^{-1} \to Ar^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + e^{-1} \to Ar^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.17.20 Data for Cr

The data is stored in SHOT=24 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.17.21 Data for Fe

The data is stored in SHOT=26 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26
AMN=55.847

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.17.22 Data for Ni

The data is stored in SHOT=28 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \to Ni^{z+0}$

3.7.17.23 Data for Cu

The data is stored in SHOT=29 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \to Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \to Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \to Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

3.7.17.24 Data for Ge

The data is stored in SHOT=32 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \rightarrow Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \rightarrow Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \rightarrow Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.17.25 Data for Kr

The data is stored in SHOT=36 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \to Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \to Kr^{+0} + Kr^{+1}$

3.7.17.26 Data for Mo

The data is stored in SHOT=42 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \to Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \to Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \to Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \to Mo^{z+0}$

3.7.17.27 Data for Xe

The data is stored in SHOT=54 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=54
AMN=131.29

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.17.28 Data for W

The data is stored in SHOT=74 RUN=17
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

624

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w_jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w_jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \rightarrow T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \rightarrow W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \rightarrow Xe$

3.7.18 Release 18 [DEFAULT]

Description:

['AMNS data created by version 4.10b of the amns_driver system']

Date:

2018-05-24 17:51:30.423 +0200

3.7.18.1 Data for H

The data is stored in SHOT=1 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=1.00794

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd12/ acd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + 2e^{-1} \rightarrow H^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd12/ scd12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + e^{-1} \rightarrow H^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	2	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} + H\|D\|T^{+0} \rightarrow H^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb12/ prb12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
5	LR	Line radiation	2	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt12/ plt12_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
6	ZE	Effective Charge	2	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
7	ZE2	Effective Square Charge	2	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
8	EIP	Effective Ionisation Potential	2	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_h.dat	1: Electron Temperature 2: Electron Density	$H^{z+0} \rightarrow H^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-total-elastic-cross-section.res	1: Energy	$H^{+0} \rightarrow H^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 1-H/ H-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$H^{+0} \rightarrow H^{+0}$

3.7.18.2 Data for 4674

The data is stored in SHOT=4674 RUN=5
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=-999999999
AMN=-9e+40

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$D^{+1} + Be^{+4} + C^{+6} + W^{+74} \to D^{+1} + Be^{+4} + C^{+6}$
2	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$Be^{+4} + Be^{+4} + C^{+6} + W^{+74} \to Be^{+4} + Be^{+4} + C^{+6}$
3	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$C^{+6} + Be^{+4} + C^{+6} + W^{+74} \to C^{+6} + Be^{+4} + C^{+6}$
4	MIXSPUT MIXREFL	MIXED MATERIAL PHYSICAL SPUTTERING AND REFLECTOION YIELDS RYIELD	5	2	YIELD RYIELD	-1	0			$W^{+74} + Be^{+4} + C^{+6} + W^{+74} \to W^{+74} + Be^{+4} + C$

3.7.18.3 Data for 2-H

The data is stored in SHOT=2001 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=2.0

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(D,p)T	1	1	m^{2}	-1	1001			$D + D \to H + T$
2	NUC_BB	cross section for D(D,n)^3He	1	1	m^{2}	-1	1001			$D + D \to n + He$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	NUC_TT	reactivity for tt D(D,p)T	1	1	m^{3} s^{-1}	-1	1002			$D + D \to H + T$
4	NUC_TT	reactivity for tt D(D,n)^3He	1	1	m^{3} s^{-1}	-1	1002			$D + D \to n + He$
5	NUC_BT	Reaction rate for bt D(D,p)T	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to H + T$
6	NUC_BT	Reaction rate for bt D(D,n)^3He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + D \to n + He$

3.7.18.4 Data for 3-H

The data is stored in SHOT=3001 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=1
AMN=3.0

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(T,n)^4He	1	1	m^{2}	-1	1001			$D + T \to n + He$
2	NUC_TT	reactivity for tt D(T,n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to n + He$
3	NUC_BT	Reaction rate for bt D(T,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$D + T \to n + He$
4	NUC_BT	Reaction rate for bt T(D,n)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$T + D \to n + He$
5	NUC_BB	cross section for T(T,2n)^4He	1	1	m^{2}	-1	1006			$T + T \to 2n + He$
6	NUC_TT	reactivity for tt T(T,2n)^4He	1	1	m^{3} s^{-1}	-1	1002			$D + T \to 2n + He$

3.7.18.5 Data for He

The data is stored in SHOT=2 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=4.002602

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + 2e^{-1} \rightarrow He^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + e^{-1} \rightarrow He^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	3	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} + H\|D\|T^{+0} \rightarrow He^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
5	LR	Line radiation	3	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
6	ZE	Effective Charge	3	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
7	ZE2	Effective Square Charge	3	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
8	EIP	Effective Ionisation Potential	3	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_he.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
9	LR_250	Line radiation (250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_250.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	3	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_he.jet_350.dat	1: Electron Temperature 2: Electron Density	$He^{z+0} \rightarrow He^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-total-elastic-cross-section.res	1: Energy	$He^{+0} \rightarrow He^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 2-He/ He-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$He^{+0} \rightarrow He^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$He^{+1} + He^{+0} \rightarrow He^{+0} + He^{+1}$

3.7.18.6 Data for 3-He

The data is stored in SHOT=3002 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=2
AMN=3.0

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	NUC_BB	cross section for D(^3He,p)^4He	1	1	m^{2}	-1	1001			$\mathrm{D + He \rightarrow H + He}$
2	NUC_TT	reactivity for tt D(^3He,p)^4He	1	1	m^{3} s^{-1}	-1	1002			$\mathrm{D + He \rightarrow H + He}$
3	NUC_BT	Reaction rate for bt ^3He(D,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{He + D \rightarrow H + He}$
4	NUC_BT	Reaction rate for bt D(^3He,p)^4He	1	2	m^{3} s^{-1}	1	1		1: Temperature x kB 2: Particle energy	$\mathrm{D + He \rightarrow H + He}$

3.7.18.7 Data for Li

The data is stored in SHOT=3 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=3
AMN=6.941

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li^{z+0} + 2e^{-1} \rightarrow Li^{z-1} + e^{-1}}$
2	EI	Electron Impact Ionisation	4	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li^{z+0} + e^{-1} \rightarrow Li^{z+1} + 2e^{-1}}$
3	CX	CX recombination coeffts	4	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li^{z+0} + H\|D\|T^{+0} \rightarrow Li^{z-1} + H\|D\|T^{+1}}$
4	BR	Recomb/brems power coeffts	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li^{z+0} \rightarrow Li^{z+0}}$
5	LR	Line radiation	4	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_li.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Li^{z+0} \rightarrow Li^{z+0}}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	4	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
7	ZE2	Effective Square Charge	4	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$
8	EIP	Effective Ionisation Potential	4	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_li.dat	1: Electron Temperature 2: Electron Density	$Li^{z+0} \rightarrow Li^{z+0}$

3.7.18.8 Data for Be

The data is stored in SHOT=4 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=4
AMN=9.012182

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + 2e^{-1} \rightarrow Be^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	5	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + e^{-1} \rightarrow Be^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	5	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} + H\|D\|T^{+0} \rightarrow Be^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
5	LR	Line radiation	5	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	5	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
7	ZE2	Effective Square Charge	5	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
8	EIP	Effective Ionisation Potential	5	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_be.dat	1: Electron Temperature 2: Electron Density	$Be^{z+0} \rightarrow Be^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-total-elastic-cross-section.res	1: Energy	$Be^{+0} \rightarrow Be^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 4-Be/ Be-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Be^{+0} \rightarrow Be^{+0}$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Ar \rightarrow Be$
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Be \rightarrow Be$
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + D \rightarrow Be$
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + H \rightarrow Be$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + He4 \rightarrow Be$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + Kr \rightarrow Be$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		$Be + N \rightarrow Be$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Ne → Be
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + O → Be
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + T → Be
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_be.dat K. Schmid Some book by Eckstein, still working on that		Be + Xe → Be
22	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + He → He
23	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + Be → Be
24	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + D → D
25	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + H → H
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_be.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		Be + T → T

3.7.18.9 Data for B

The data is stored in SHOT=5 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=5
AMN=10.811

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + 2e^{-1} \rightarrow B^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + e^{-1} \rightarrow B^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	6	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} + H\|D\|T^{+0} \rightarrow B^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
5	LR	Line radiation	6	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
6	ZE	Effective Charge	6	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
7	ZE2	Effective Square Charge	6	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
8	EIP	Effective Ionisation Potential	6	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_b.dat	1: Electron Temperature 2: Electron Density	$B^{z+0} \rightarrow B^{z+0}$
9	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + B \rightarrow B$
10	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + D \rightarrow B$
11	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		$B + H \rightarrow B$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
12	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + He4 → B
13	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + Ne → B
14	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + O → B
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_b.dat K. Schmid Some book by Eckstein, still working on that		B + T → B
16	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + He → He
17	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + B → B
18	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + D → D
19	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + H → H
20	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_b.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		B + T → T

3.7.18.10 Data for C

The data is stored in SHOT=6 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=6
AMN=12.011

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + 2e^{-1} \rightarrow C^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + e^{-1} \rightarrow C^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	7	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd96/ ccd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} + H\|D\|T^{+0} \rightarrow C^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
5	LR	Line radiation	7	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
6	ZE	Effective Charge	7	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
7	ZE2	Effective Square Charge	7	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
8	EIP	Effective Ionisation Potential	7	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_c.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
9	LR_250	Line radiation (250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
10	LR_350	Line radiation (350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_250.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	7	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_c.jet_350.dat	1: Electron Temperature 2: Electron Density	$C^{z+0} \rightarrow C^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-total-elastic-cross-section.res	1: Energy	$C^{+0} \rightarrow C^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 6-C/ C-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$C^{+0} \rightarrow C^{+0}$
15	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ar \rightarrow C$
16	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + C \rightarrow C$
17	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + D \rightarrow C$
18	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + H \rightarrow C$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + He4 \rightarrow C$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Kr \rightarrow C$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + N \rightarrow C$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + Ne \rightarrow C$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		$C + O \rightarrow C$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + T → C
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_c.dat K. Schmid Some book by Eckstein, still working on that		C + Xe → C
26	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + He → He
27	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + C → C
28	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + D → D
29	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + H → H
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + N → N
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_c.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		C + T → T

3.7.18.11 Data for N

The data is stored in SHOT=7 RUN=18
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=7
AMN=14.00674
```

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + 2e^{-1} \rightarrow N^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	8	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + e^{-1} \rightarrow N^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	8	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} + H\|D\|T^{+0} \rightarrow N^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
5	LR	Line radiation	8	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
6	ZE	Effective Charge	8	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
7	ZE2	Effective Square Charge	8	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
8	EIP	Effective Ionisation Potential	8	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_n.dat	1: Electron Temperature 2: Electron Density	$N^{z+0} \rightarrow N^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-total-elastic-cross-section.res	1: Energy	$N^{+0} \rightarrow N^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 7-N/ N-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$N^{+0} \rightarrow N^{+0}$

3.7.18.12 Data for O

The data is stored in SHOT=8 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=8
AMN=15.9994

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + 2e^{-1} \rightarrow O^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	9	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + e^{-1} \rightarrow O^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	9	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} + H\|D\|T^{+0} \rightarrow O^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
5	LR	Line radiation	9	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
6	ZE	Effective Charge	9	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
7	ZE2	Effective Square Charge	9	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
8	EIP	Effective Ionisation Potential	9	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_o.dat	1: Electron Temperature 2: Electron Density	$O^{z+0} \rightarrow O^{z+0}$
9	EL	Total Elastic Cross-Section	1	1	m^{2}	9	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-total-elastic-cross-section.res	1: Energy	$O^{+0} \rightarrow O^{+0}$
10	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	10	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 8-O/ O-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$O^{+0} \rightarrow O^{+0}$

3.7.18.13 Data for F

The data is stored in SHOT=9 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=9
AMN=18.9984032

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + 2e^{-1} \to F^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + e^{-1} \to F^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	10	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} + H\|D\|T^{+0} \to F^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
5	LR	Line radiation	10	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
6	ZE	Effective Charge	10	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
7	ZE2	Effective Square Charge	10	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$
8	EIP	Effective Ionisation Potential	10	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_f.dat	1: Electron Temperature 2: Electron Density	$F^{z+0} \to F^{z+0}$

3.7.18.14 Data for Ne

The data is stored in SHOT=10 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=10
AMN=20.1797

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd96/ acd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + 2e^{-1} \rightarrow Ne^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	11	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd96/ scd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + e^{-1} \rightarrow Ne^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	11	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} + H\|D\|T^{+0} \rightarrow Ne^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb96/ prb96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
5	LR	Line radiation	11	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt96/ plt96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
6	ZE	Effective Charge	11	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd96/ zcd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
7	ZE2	Effective Square Charge	11	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd96/ ycd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
8	EIP	Effective Ionisation Potential	11	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd96/ ecd96_ne.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
9	LR_250	Line radiation (250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$
10	LR_350	Line radiation (350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \rightarrow Ne^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	11	2	W m^{3}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ne.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ne^{z+0} \to Ne^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-total-elastic-cross-section.res	1: Energy	$Ne^{+0} \to Ne^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 10-Ne/ Ne-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ne^{+0} \to Ne^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ne^{+1} + Ne^{+0} \to Ne^{+0} + Ne^{+1}$

3.7.18.15 Data for Al

The data is stored in SHOT=13 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=13
AMN=26.981539

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + 2e^{-1} \to Al^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + e^{-1} \to Al^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	14	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} + H\|D\|T^{+0} \rightarrow Al^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
5	LR	Line radiation	14	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
6	ZE	Effective Charge	14	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
7	ZE2	Effective Square Charge	14	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$
8	EIP	Effective Ionisation Potential	14	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_al.dat	1: Electron Temperature 2: Electron Density	$Al^{z+0} \rightarrow Al^{z+0}$

3.7.18.16 Data for Si

The data is stored in SHOT=14 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=14
AMN=28.0855

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + 2e^{-1} \rightarrow Si^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + e^{-1} \rightarrow Si^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	15	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} + H\|D\|T^{+0} \rightarrow Si^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
5	LR	Line radiation	15	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
6	ZE	Effective Charge	15	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
7	ZE2	Effective Square Charge	15	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$
8	EIP	Effective Ionisation Potential	15	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_si.dat	1: Electron Temperature 2: Electron Density	$Si^{z+0} \rightarrow Si^{z+0}$

3.7.18.17 Data for S

The data is stored in SHOT=16 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=16
AMN=32.066

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + 2e^{-1} \rightarrow S^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + e^{-1} \rightarrow S^{z+1} + 2e^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	17	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} + H\|D\|T^{+0} \rightarrow S^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
5	LR	Line radiation	17	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
6	ZE	Effective Charge	17	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
7	ZE2	Effective Square Charge	17	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$
8	EIP	Effective Ionisation Potential	17	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_s.dat	1: Electron Temperature 2: Electron Density	$S^{z+0} \rightarrow S^{z+0}$

3.7.18.18 Data for Cl

The data is stored in SHOT=17 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=17
AMN=35.4527

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + 2e^{-1} \rightarrow Cl^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cl.dat	1: Electron Temperature 2: Electron Density	$Cl^{z+0} + e^{-1} \rightarrow Cl^{z+1} + 2e^{-1}$

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	18	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} + \mathrm{H\|D\|T}^{+0} \rightarrow \mathrm{Cl}^{z-1} + \mathrm{H\|D\|T}^{+1}$
4	BR	Recomb/brems power coeffts	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} \rightarrow \mathrm{Cl}^{z+0}$
5	LR	Line radiation	18	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} \rightarrow \mathrm{Cl}^{z+0}$
6	ZE	Effective Charge	18	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} \rightarrow \mathrm{Cl}^{z+0}$
7	ZE2	Effective Square Charge	18	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} \rightarrow \mathrm{Cl}^{z+0}$
8	EIP	Effective Ionisation Potential	18	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cl.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Cl}^{z+0} \rightarrow \mathrm{Cl}^{z+0}$

3.7.18.19 Data for Ar

The data is stored in SHOT=18 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=18
AMN=39.948

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

INDPROC		LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} + 2\mathrm{e}^{-1} \rightarrow \mathrm{Ar}^{z-1} + \mathrm{e}^{-1}$
2	EI	Electron Impact Ionisation	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ar.dat	1: Electron Temperature 2: Electron Density	$\mathrm{Ar}^{z+0} + \mathrm{e}^{-1} \rightarrow \mathrm{Ar}^{z+1} + 2\mathrm{e}^{-1}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
3	CX	CX recombination coeffts	19	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} + H\|D\|T^{+0} \rightarrow Ar^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
5	LR	Line radiation	19	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
6	ZE	Effective Charge	19	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
7	ZE2	Effective Square Charge	19	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
8	EIP	Effective Ionisation Potential	19	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ar.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
9	LR_250	Line radiation (250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
10	LR_350	Line radiation (350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	19	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ar.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ar^{z+0} \rightarrow Ar^{z+0}$
13	EL	Total Elastic Cross-Section	1	1	m^{2}	13	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-total-elastic-cross-section.res	1: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
14	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	14	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 18-Ar/ Ar-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$Ar^{+0} \rightarrow Ar^{+0}$
15	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Ar^{+1} + Ar^{+0} \rightarrow Ar^{+0} + Ar^{+1}$

3.7.18.20 Data for Cr

The data is stored in SHOT=24 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=24
AMN=51.9961

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + 2e^{-1} \rightarrow Cr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + e^{-1} \rightarrow Cr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	25	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} + H\|D\|T^{+0} \rightarrow Cr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
5	LR	Line radiation	25	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
6	ZE	Effective Charge	25	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
7	ZE2	Effective Square Charge	25	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$
8	EIP	Effective Ionisation Potential	25	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cr.dat	1: Electron Temperature 2: Electron Density	$Cr^{z+0} \rightarrow Cr^{z+0}$

3.7.18.21 Data for Fe

The data is stored in SHOT=26 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=26 AMN=55.847

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + 2e^{-1} \rightarrow Fe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + e^{-1} \rightarrow Fe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	27	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} + H\|D\|T^{+0} \rightarrow Fe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
5	LR	Line radiation	27	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
6	ZE	Effective Charge	27	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
7	ZE2	Effective Square Charge	27	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$
8	EIP	Effective Ionisation Potential	27	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_fe.dat	1: Electron Temperature 2: Electron Density	$Fe^{z+0} \rightarrow Fe^{z+0}$

3.7.18.22 Data for Ni

The data is stored in SHOT=28 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=28
AMN=58.6934

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + 2e^{-1} \rightarrow Ni^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + e^{-1} \rightarrow Ni^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	29	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} + H\|D\|T^{+0} \rightarrow Ni^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
5	LR	Line radiation	29	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
6	ZE	Effective Charge	29	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
7	ZE2	Effective Square Charge	29	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
8	EIP	Effective Ionisation Potential	29	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ni.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
9	LR_250	Line radiation (250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
10	LR_350	Line radiation (350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_250.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	29	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_ni.jet_350.dat	1: Electron Temperature 2: Electron Density	$Ni^{z+0} \rightarrow Ni^{z+0}$

3.7.18.23 Data for Cu

The data is stored in SHOT=29 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=29
AMN=63.546

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + 2e^{-1} \rightarrow Cu^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + e^{-1} \rightarrow Cu^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	30	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} + H\|D\|T^{+0} \rightarrow Cu^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$
5	LR	Line radiation	30	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \rightarrow Cu^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	30	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
7	ZE2	Effective Square Charge	30	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$
8	EIP	Effective Ionisation Potential	30	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_cu.dat	1: Electron Temperature 2: Electron Density	$Cu^{z+0} \to Cu^{z+0}$

3.7.18.24 Data for Ge

The data is stored in SHOT=32 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=32
AMN=72.61

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + 2e^{-1} \to Ge^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + e^{-1} \to Ge^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	33	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} + H\|D\|T^{+0} \to Ge^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$
5	LR	Line radiation	33	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \to Ge^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	33	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
7	ZE2	Effective Square Charge	33	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$
8	EIP	Effective Ionisation Potential	33	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_ge.dat	1: Electron Temperature 2: Electron Density	$Ge^{z+0} \rightarrow Ge^{z+0}$

3.7.18.25 Data for Kr

The data is stored in SHOT=36 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=36
AMN=83.8

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + 2e^{-1} \rightarrow Kr^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + e^{-1} \rightarrow Kr^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	37	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} + H\|D\|T^{+0} \rightarrow Kr^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
5	LR	Line radiation	37	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
6	ZE	Effective Charge	37	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
7	ZE2	Effective Square Charge	37	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
8	EIP	Effective Ionisation Potential	37	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_kr.dat	1: Electron Temperature 2: Electron Density	$Kr^{z+0} \rightarrow Kr^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / epsppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Kr^{+1} + Kr^{+0} \rightarrow Kr^{+0} + Kr^{+1}$

3.7.18.26 Data for Mo

The data is stored in SHOT=42 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=42
AMN=95.94

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + 2e^{-1} \rightarrow Mo^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + e^{-1} \rightarrow Mo^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	43	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} + H\|D\|T^{+0} \rightarrow Mo^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
5	LR	Line radiation	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
6	ZE	Effective Charge	43	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
7	ZE2	Effective Square Charge	43	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
8	EIP	Effective Ionisation Potential	43	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_mo.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
9	LR_250	Line radiation (250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
10	LR_350	Line radiation (350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
11	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_250.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$
12	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	43	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_mo.jet_350.dat	1: Electron Temperature 2: Electron Density	$Mo^{z+0} \rightarrow Mo^{z+0}$

3.7.18.27 Data for Xe

The data is stored in SHOT=54 RUN=18
Description:

```
['AMNS data created by version 4.10b of the amns_driver system']
```

Charge and mass:

```
ZN=54
AMN=131.29
```

Version:

```
643
```

Data source:

```
Contributors to the AMNS task of the EFDA Task Force on Integrated Tokamak Modelling
```

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + 2e^{-1} \rightarrow Xe^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + e^{-1} \rightarrow Xe^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	55	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} + H\|D\|T^{+0} \rightarrow Xe^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
5	LR	Line radiation	55	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
6	ZE	Effective Charge	55	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
7	ZE2	Effective Square Charge	55	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
8	EIP	Effective Ionisation Potential	55	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_xe.dat	1: Electron Temperature 2: Electron Density	$Xe^{z+0} \rightarrow Xe^{z+0}$
9	RCT	Resonant Charge Transfer	1	1	m^{2}	-1	1003	http:/ / ep-sppd.epfl.ch/ Warsaw/ pdf/ P2_115.pdf http://epsppd.epfl.ch/Warsaw/pdf/P2_115.pdf		$Xe^{+1} + Xe^{+0} \rightarrow Xe^{+0} + Xe^{+1}$

3.7.18.28 Data for W

The data is stored in SHOT=74 RUN=18
Description:

['AMNS data created by version 4.10b of the amns_driver system']

Charge and mass:

ZN=74
AMN=183.84

Version:

643

Data source:

Contributors to the AMNS task of the EFDA Task Force on Integerated Tokamak Modelling

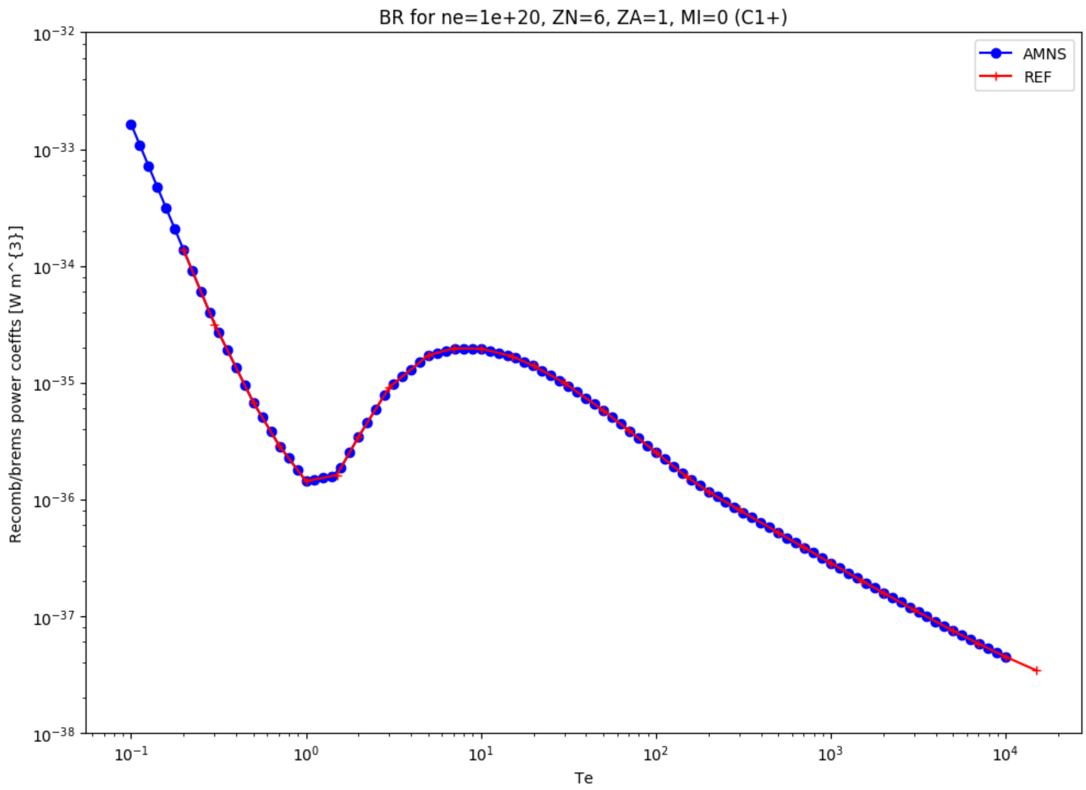
IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
1	RC	Recombination	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd89/ acd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
2	EI	Electron Impact Ionisation	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd89/ scd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
3	CX	CX recombination coeffts	75	2	m^{3} s^{-1}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ ccd89/ ccd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + H\|D\|T^{+0} \rightarrow W^{z-1} + H\|D\|T^{+1}$
4	BR	Recomb/brems power coeffts	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb89/ prb89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
5	LR	Line radiation	75	2	W m^{3}	1	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt89/ plt89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
6	ZE	Effective Charge	75	2	e	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ zcd89/ zcd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
7	ZE2	Effective Square Charge	75	2	e^{2}	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ycd89/ ycd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
8	EIP	Effective Ionisation Potential	75	2	eV	1	0	../ ../ ../ data/ atomic/ adas/ adf11/ ecd89/ ecd89_w_01.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
9	RC_TP	Recombination (Puetterich)	75	2	m^{3} s^{-1}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ acd50/ acd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + 2e^{-1} \rightarrow W^{z-1} + e^{-1}$
10	EI_TP	Electron Impact Ionisation (Puetterich)	75	2	m^{3} s^{-1}	3	1	../ ../ ../ data/ atomic/ adas/ adf11/ scd50/ scd50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} + e^{-1} \rightarrow W^{z+1} + 2e^{-1}$
11	BR_TP	Recomb/brems power coeffts (Puetterich)	75	2	W m^{3}	2	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb50/ prb50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
12	LR_TP	Line radiation (Puetterich)	75	2	W m^{3}	4	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt50/ plt50_w.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
13	LR_250	Line radiation (250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
14	LR_350	Line radiation (350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ plt88/ plt88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$

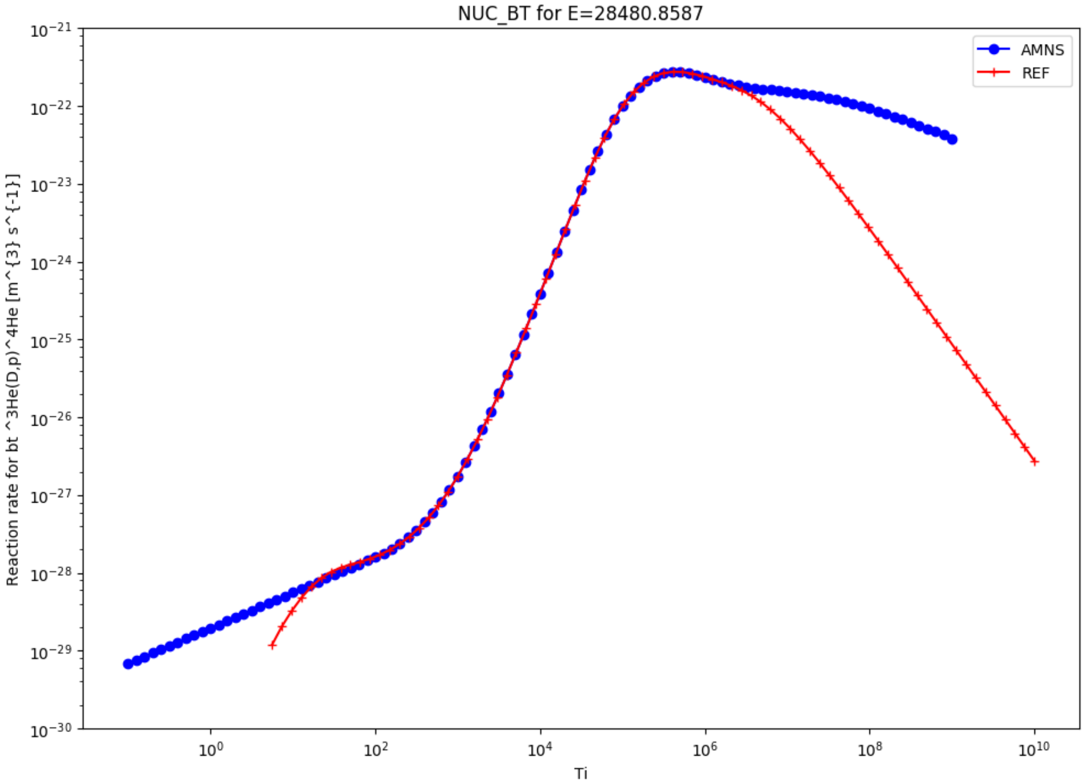
IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
15	BR_250	Recomb/brems power coeffts (JET 250u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_250.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
16	BR_350	Recomb/brems power coeffts (JET 350u Be filter)	75	2	W m^{3}	5	1	../ ../ ../ data/ atomic/ adas/ adf11/ prb88/ prb88_w.jet_350.dat	1: Electron Temperature 2: Electron Density	$W^{z+0} \rightarrow W^{z+0}$
17	EL	Total Elastic Cross-Section	1	1	m^{2}	17	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-total-elastic-cross-section.res	1: Energy	$W^{+0} \rightarrow W^{+0}$
18	dEL	Differential Elastic Cross-Section	1	2	m^{2} sr^{-1}	18	1	../ ../ ../ data/ atomic/ cross_section/ Elastic_CS_Tokesi/ 74-W/ W-angular-diff-elastic-cross-section.res	1: Angle 2: Energy	$W^{+0} \rightarrow W^{+0}$
19	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ar \rightarrow W$
20	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + D \rightarrow W$
21	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + H \rightarrow W$
22	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + He4 \rightarrow W$
23	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Kr \rightarrow W$
24	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + N \rightarrow W$
25	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Ne \rightarrow W$

IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
26	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + O \rightarrow W$
27	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + T \rightarrow W$
28	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + W \rightarrow W$
29	SPUT	Physical sputtering yield	1	2	NA	-1	1004	../ ../ ../ data/ surface/ block_syield_w.dat K. Schmid Some book by Eckstein, still working on that		$W + Xe \rightarrow W$
30	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + He \rightarrow He$
31	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ar \rightarrow Ar$
32	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + D \rightarrow D$
33	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + H \rightarrow H$
34	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Kr \rightarrow Kr$
35	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + N \rightarrow N$
36	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Ne \rightarrow Ne$

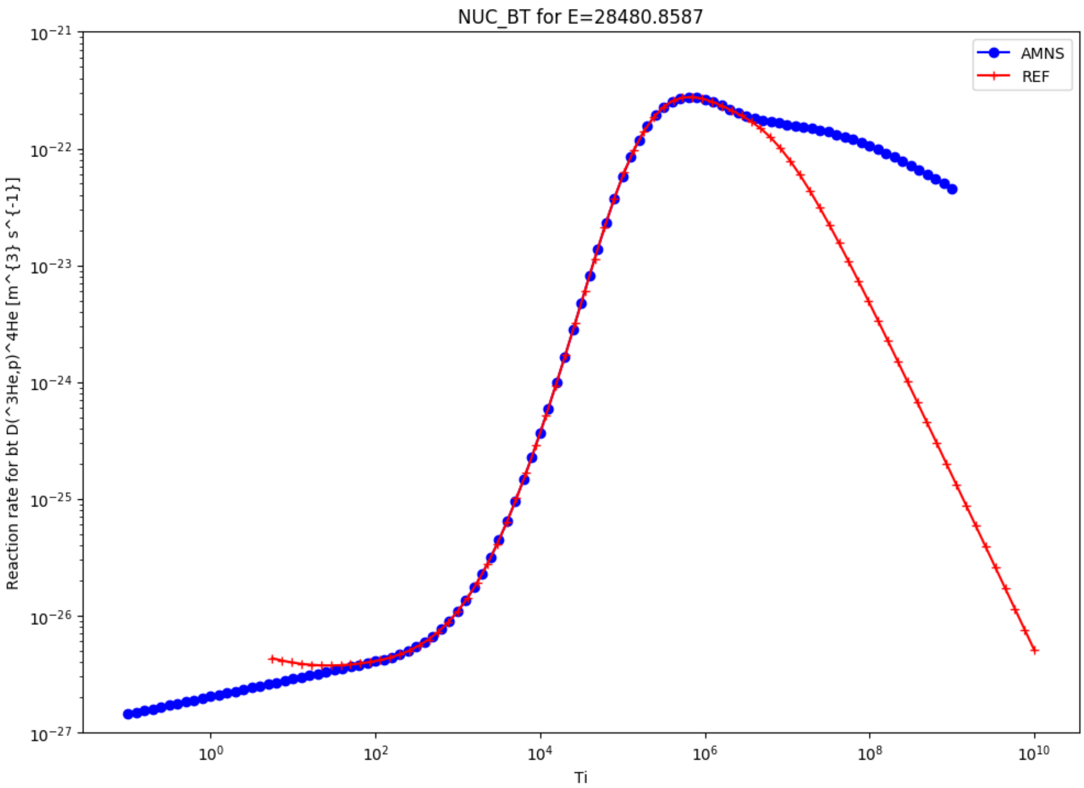
IND	PROC	LABEL	NO.	NDIM	UNITS	COORD	INTERP FUN	SOURCE PROVIDER CITATION	COORD LABELS	REACTION
37	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + T \to T$
38	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + W \to W$
39	REFL	Reflection yield	1	2	NA	-1	1005	../ ../ ../ data/ surface/ block_ryield_w.dat K. Schmid IPP-Report: W. Eckstein Reflection (Backscattering) IPP 17/12 August, 2009		$W + Xe \to Xe$

3.8 AMNS Verification Plots

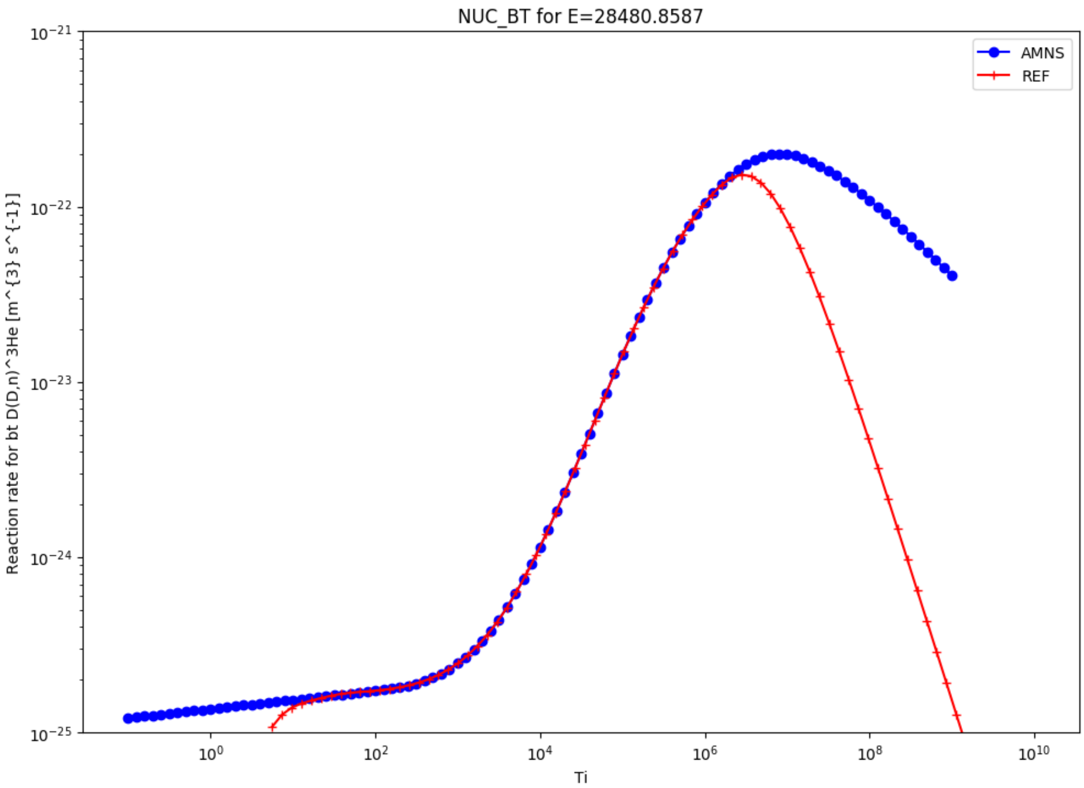




NUC_BT for E=28480.8587
AMNS
REF
Reaction rate for bt ^3He(D,p)^4He [m^{3} s^{-1}]
Ti



NUC_BT for E=28480.8587
AMNS
REF
Reaction rate for bt D(^3He,p)^4He [m^{3} s^{-1}]
Ti


NUC_BT for E=28480.8587
AMNS
REF
Reaction rate for bt D(D,n)^3He [m^{3} s^{-1}]
Ti
10^{-21}
10^{-22}
10^{-23}
10^{-24}
10^{-25}
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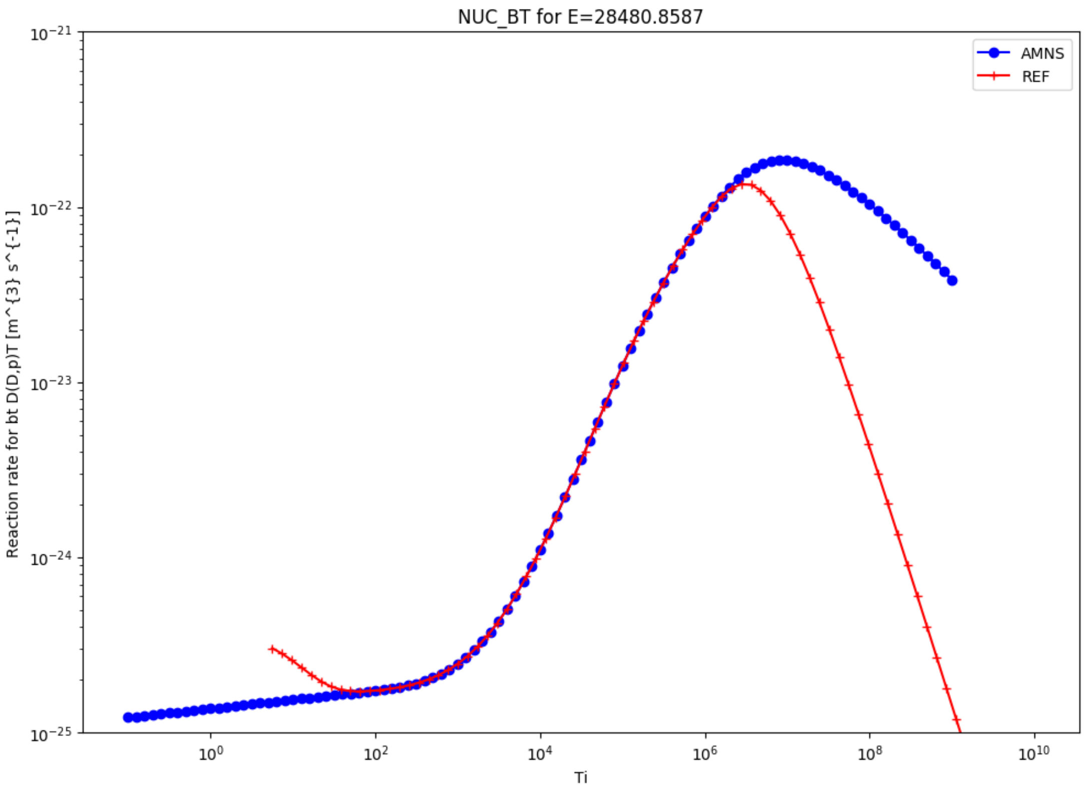
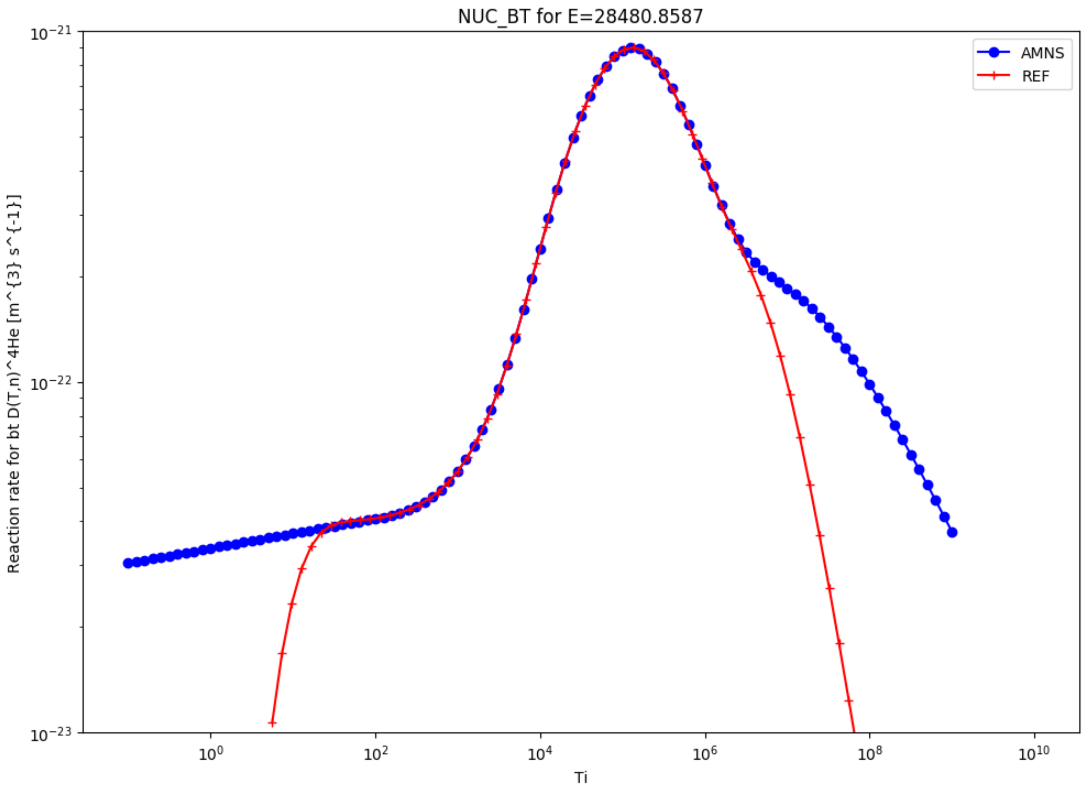
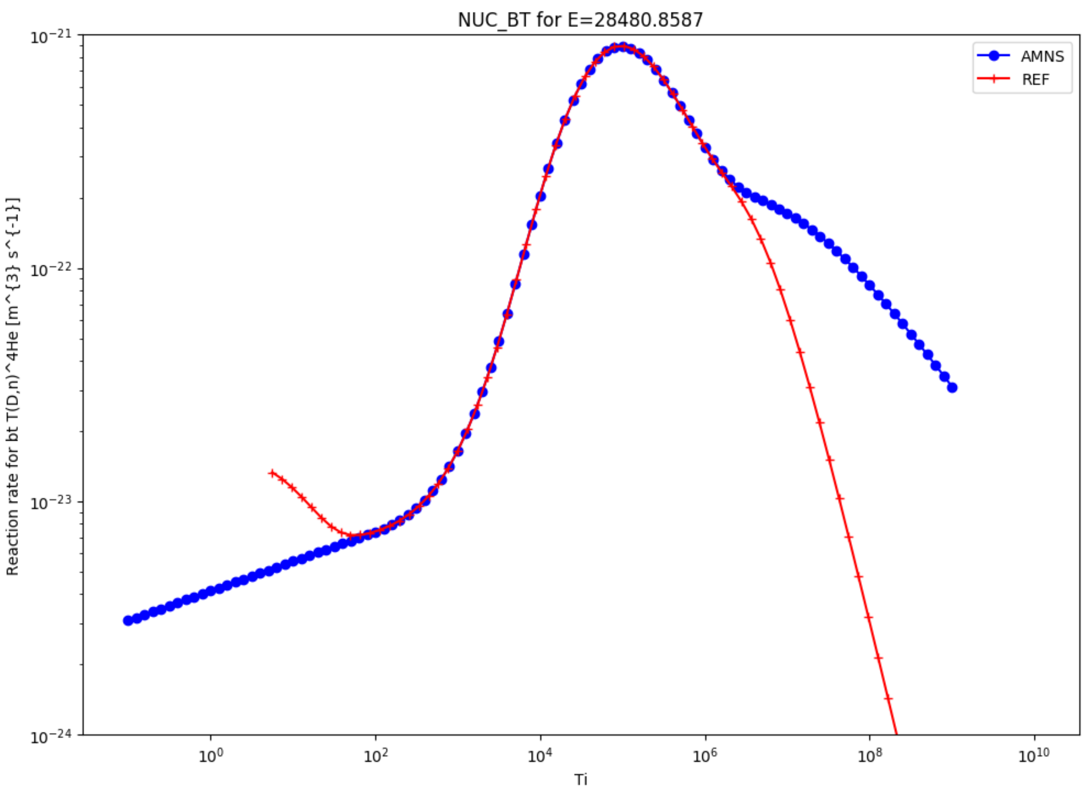
10^{2}
10^{4}
10^{6}
10^{8}
10^{10}

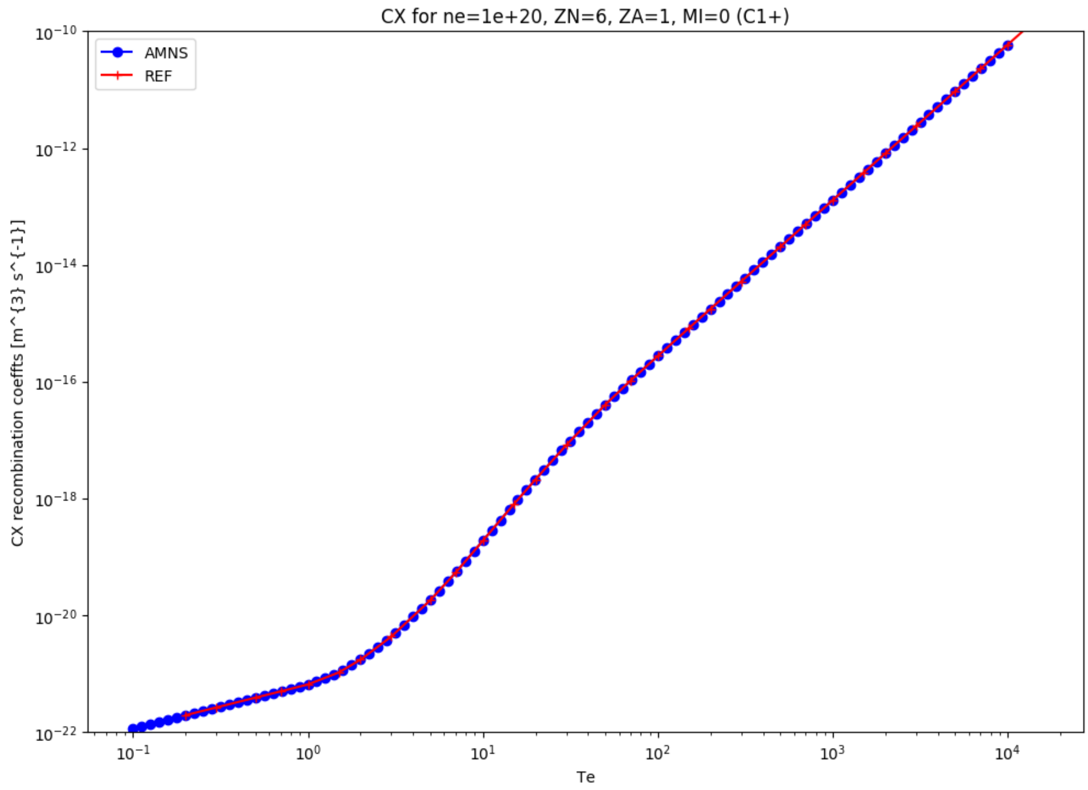

NUC_BT for E=28480.8587
AMNS
REF
Reaction rate for bt D(D,p)T [m^{3} s^{-1}]
Ti
10^{-21}
10^{-22}
10^{-23}
10^{-24}
10^{-25}
10^{0}
10^{2}
10^{4}
10^{6}
10^{8}
10^{10}

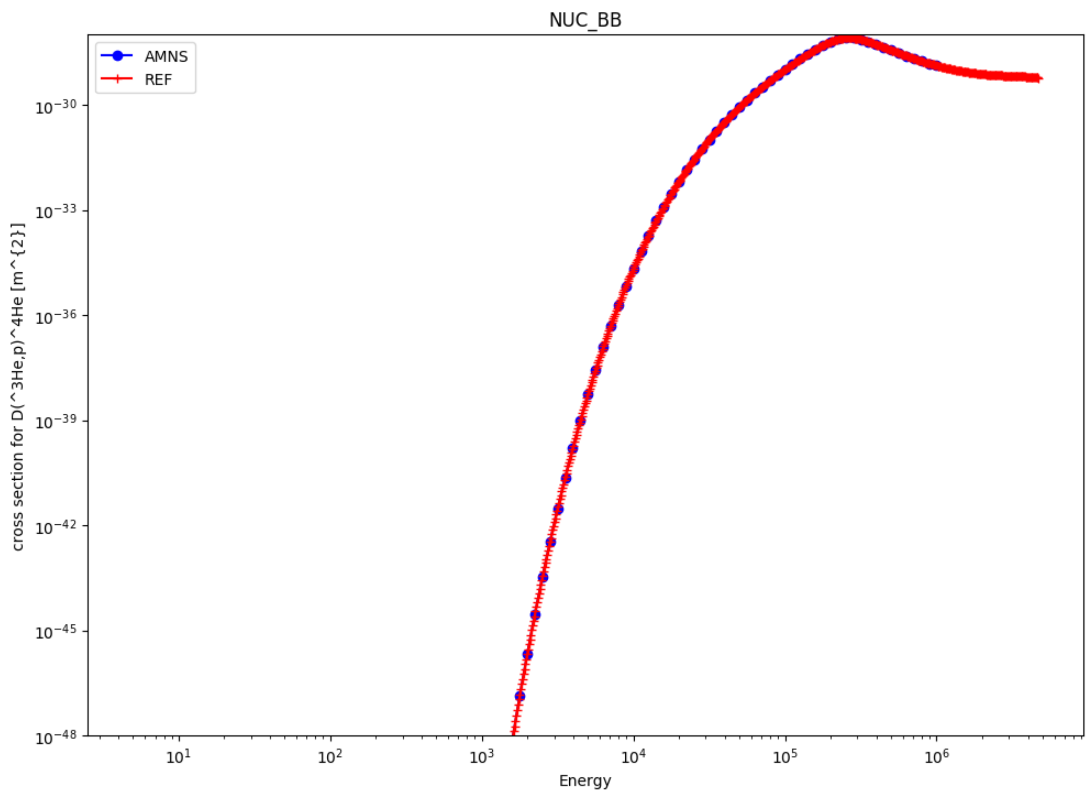


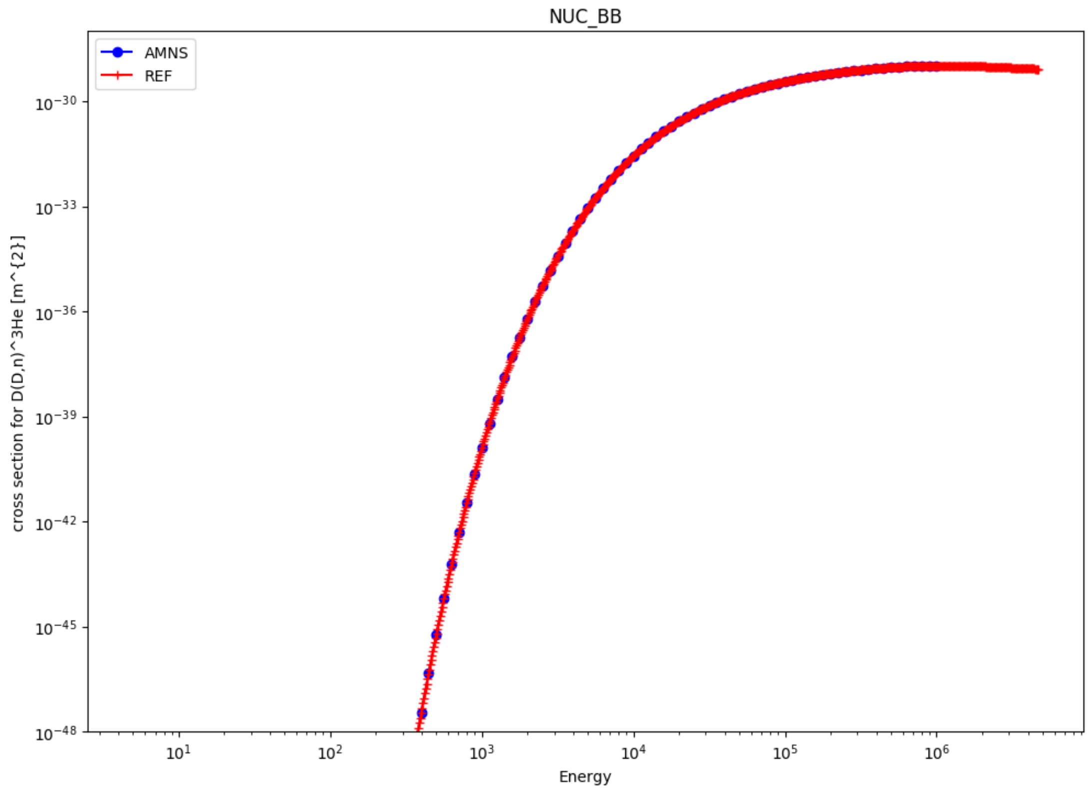
NUC_BT for E=28480.8587
Reaction rate for bt D(T,n)^4He [m^{3} s^{-1}]
Ti
AMNS
REF

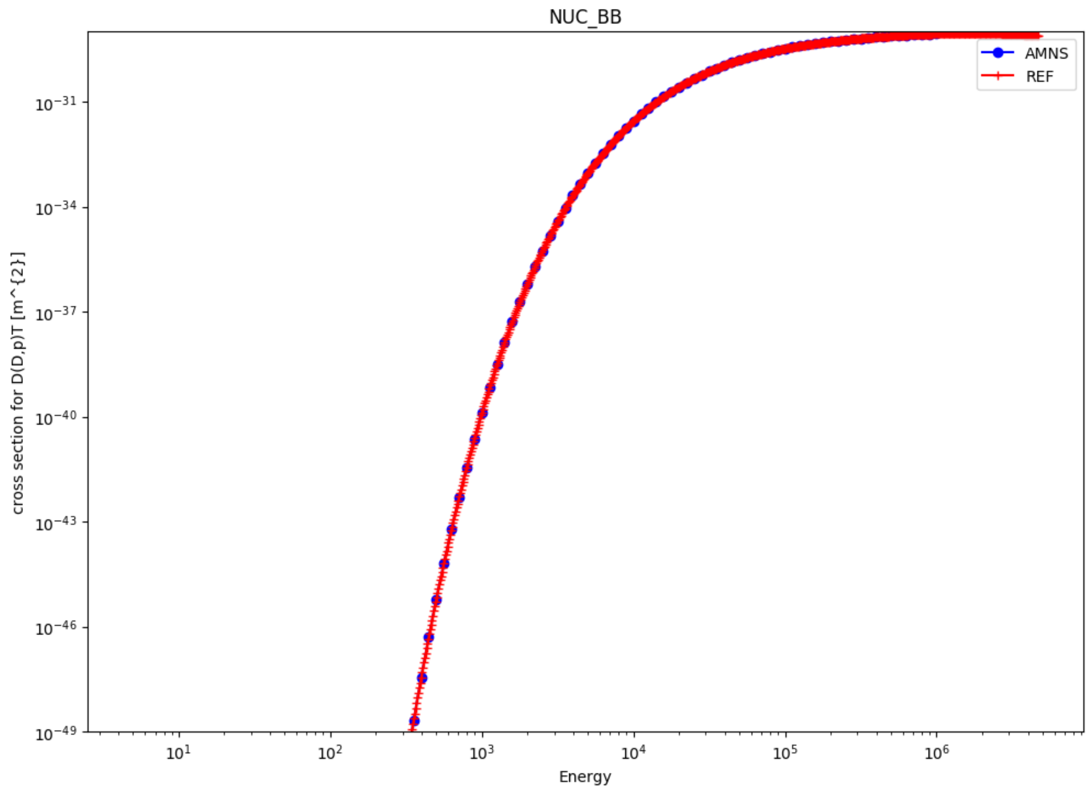


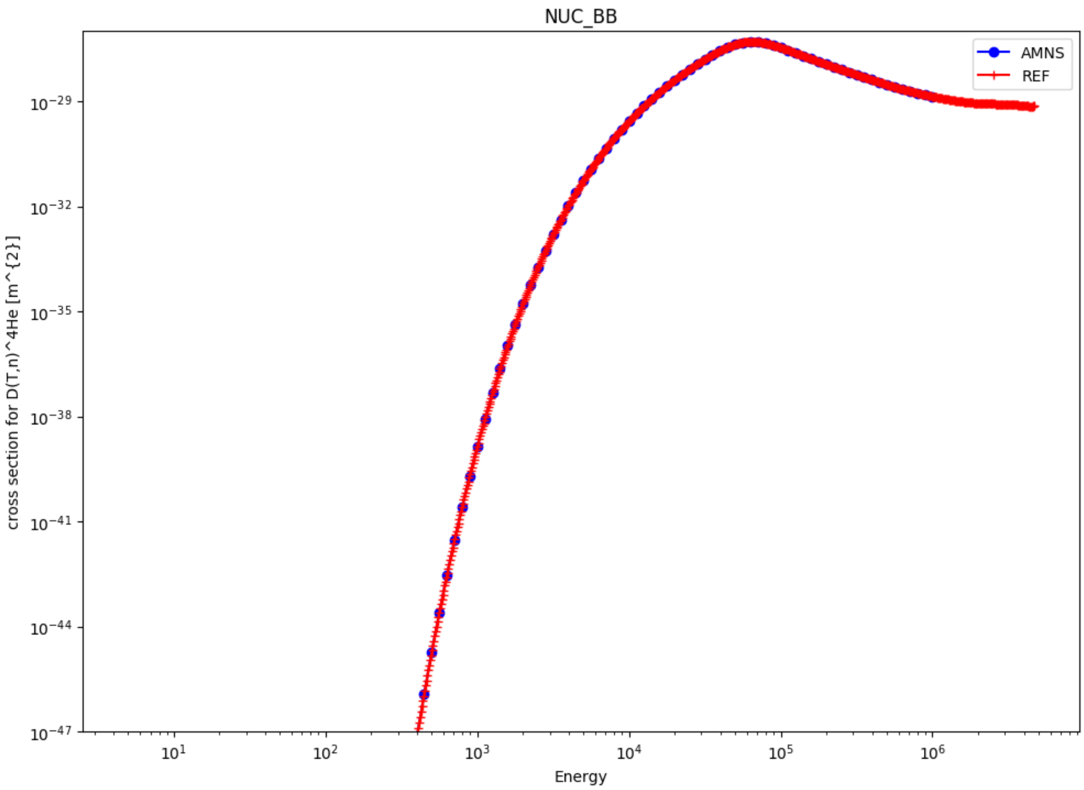
NUC_BT for E=28480.8587
Reaction rate for bt T(D,n)^4He [m^{3} s^{-1}]
Ti
AMNS
REF

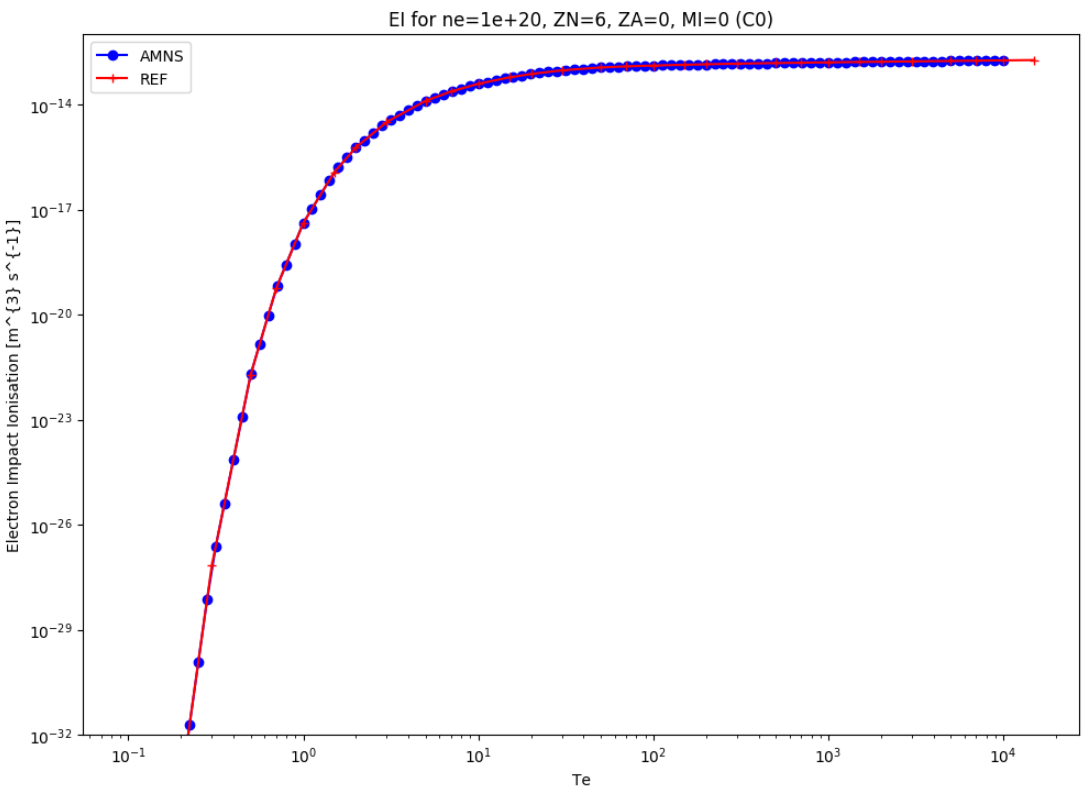

CX for ne=1e+20, ZN=6, ZA=1, MI=0 (C1+)
AMNS
REF
CX recombination coeffts [m^{3} s^{-1}]
Te

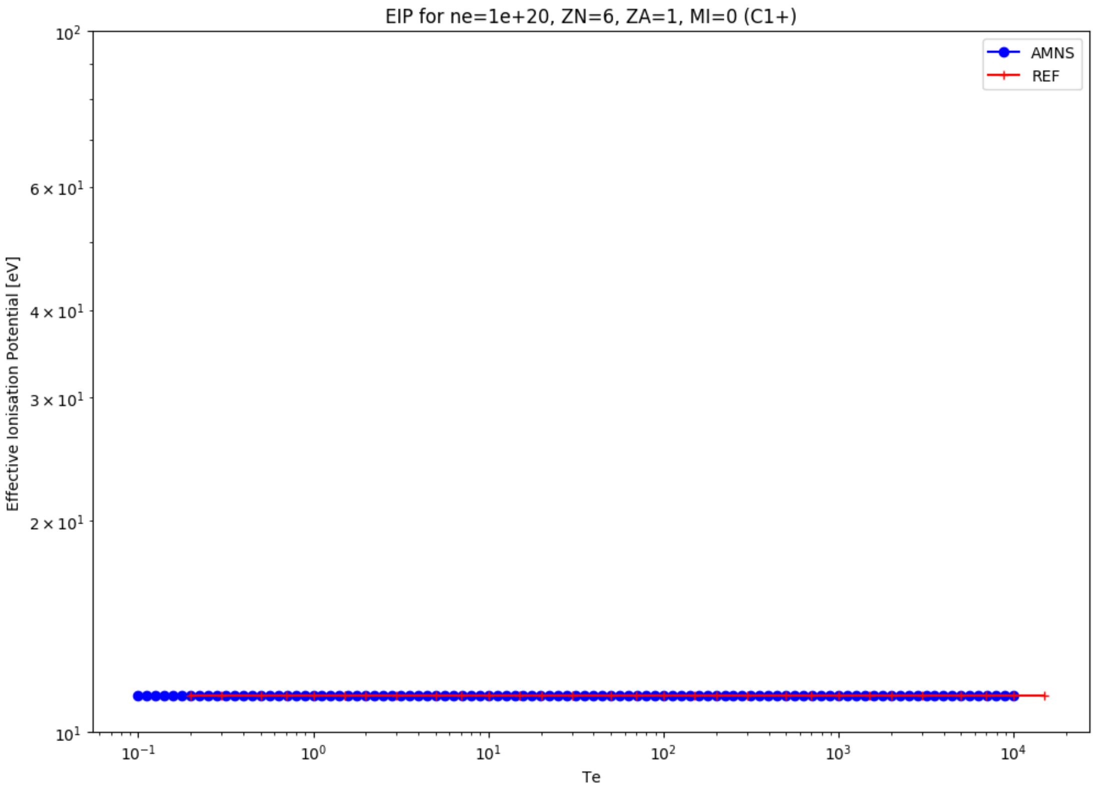

NUC_BB
AMNS
REF
cross section for D(^3He,p)^4He [m^{2}]
Energy


NUC_BB
AMNS
REF
cross section for D(D,n)^3He [m^{2}]
Energy

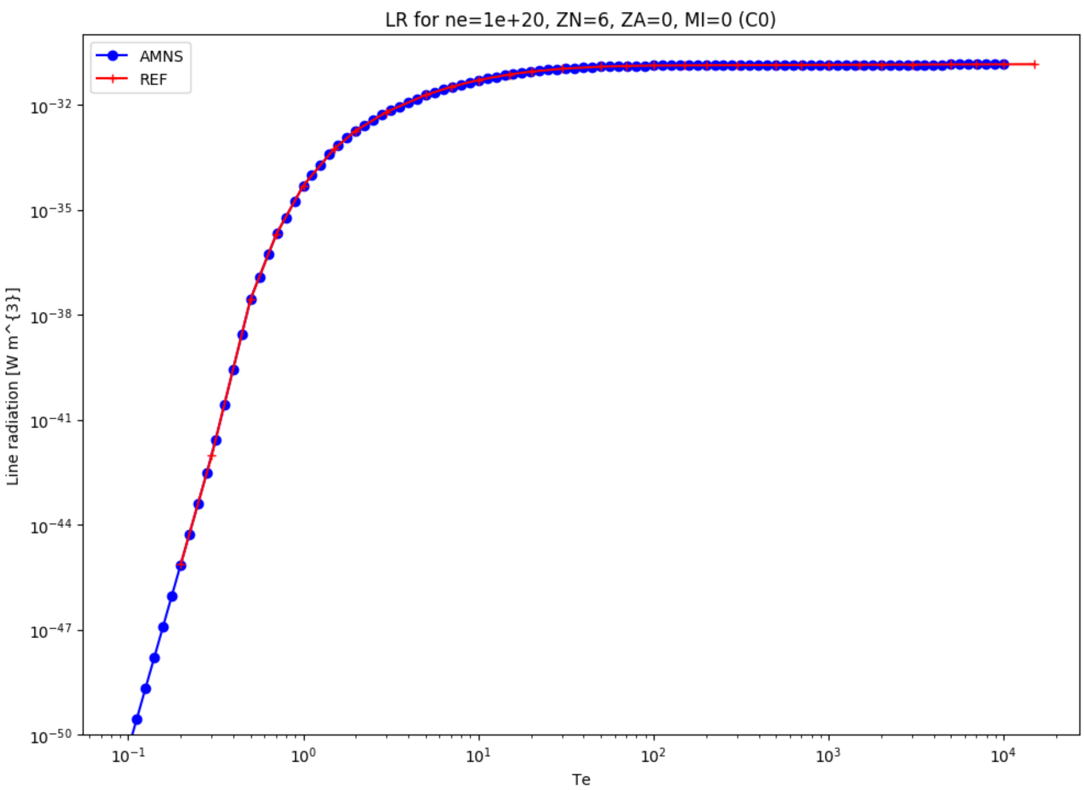

NUC_BB
AMNS
REF
cross section for D(D,p)T [m^{2}]
Energy


NUC_BB
cross section for D(T,n)^4He [m^{2}]
Energy
AMNS
REF

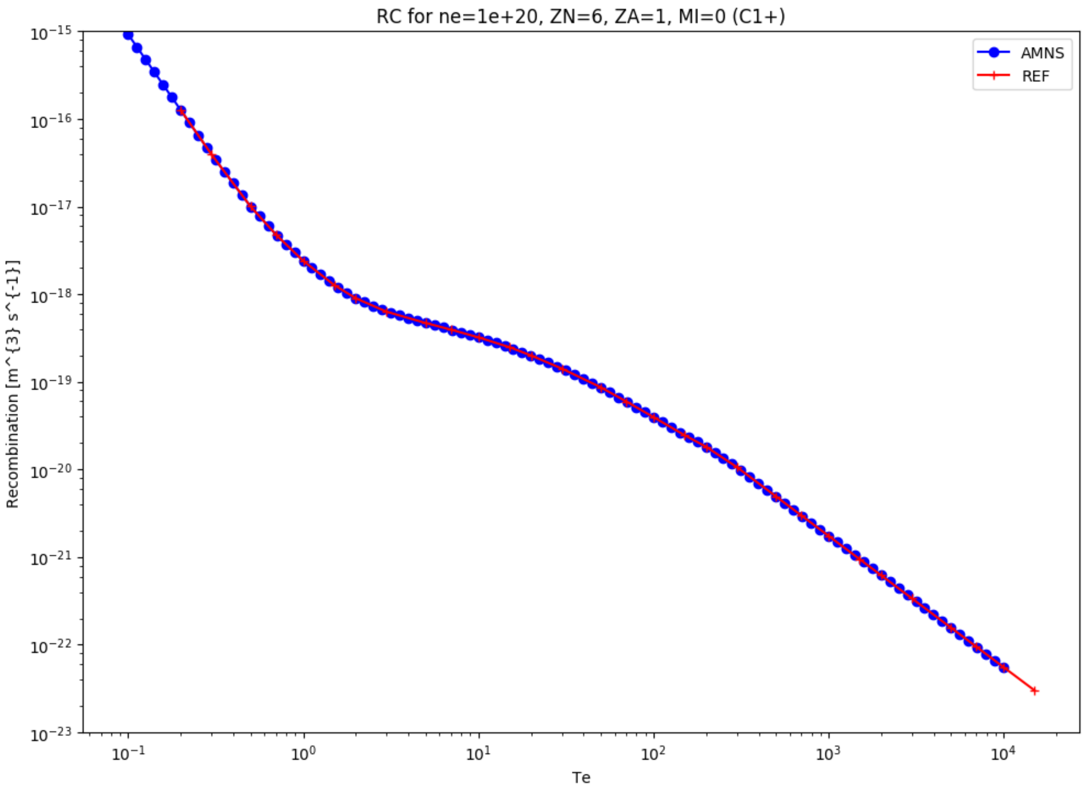

EI for ne=1e+20, ZN=6, ZA=0, MI=0 (C0)
Electron Impact Ionisation [m^{3} s^{-1}]
Te
AMNS
REF



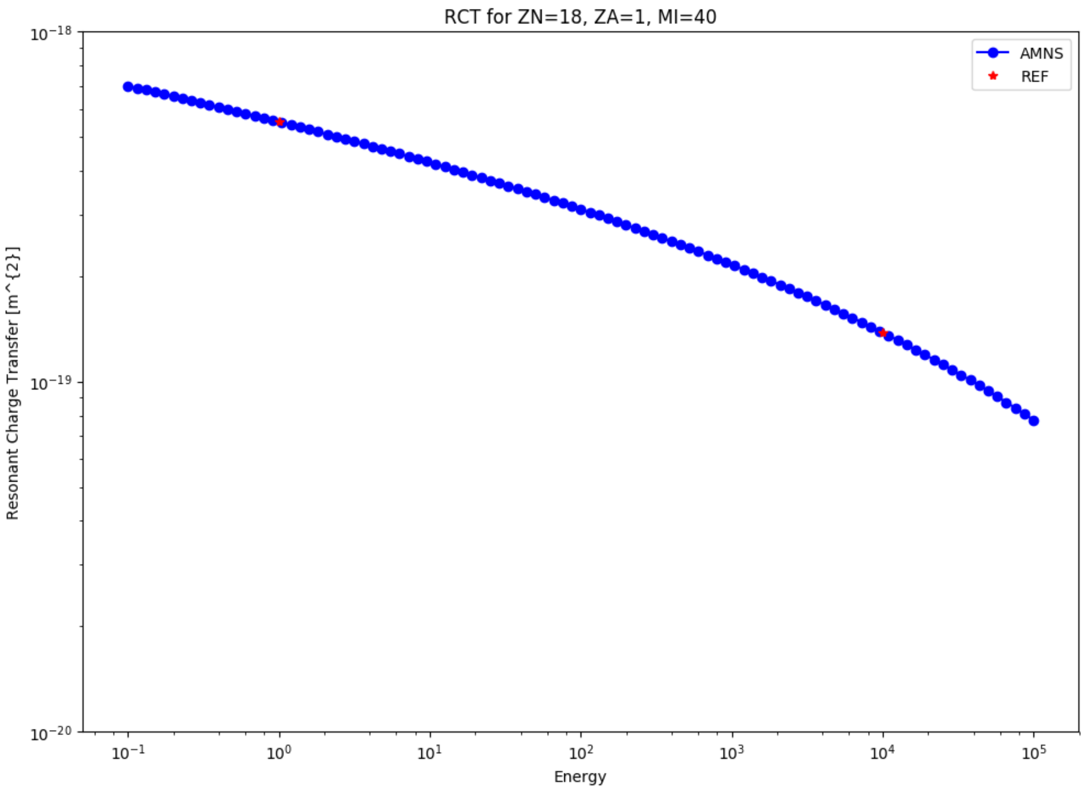
EIP for ne=1e+20, ZN=6, ZA=1, MI=0 (C1+)
AMNS
REF
Effective Ionisation Potential [eV]
10^2
6×10^1
4×10^1
3×10^1
2×10^1
10^1
10^{-1}
10^0
10^1
10^2
10^3
10^4
Te



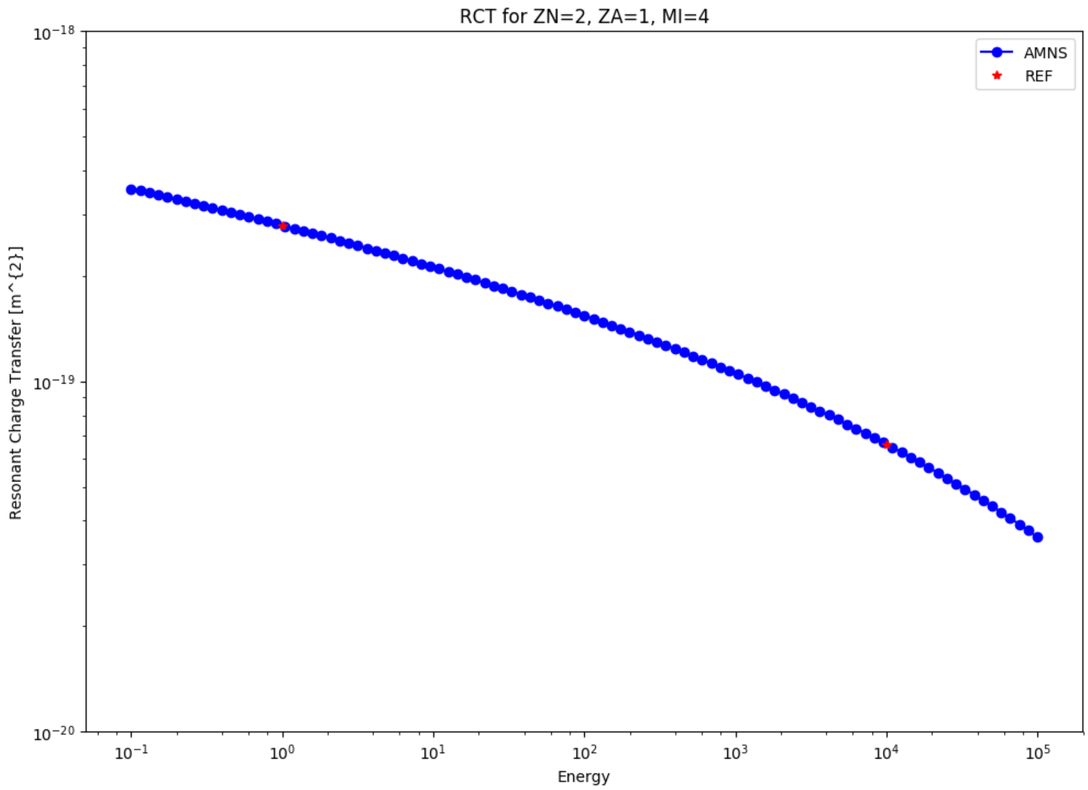
LR for ne=1e+20, ZN=6, ZA=0, MI=0 (C0)
AMNS
REF
Line radiation [W m^{3}]
10^{-32}
10^{-35}
10^{-38}
10^{-41}
10^{-44}
10^{-47}
10^{-50}
10^{-1}
10^0
10^1
10^2
10^3
10^4
Te

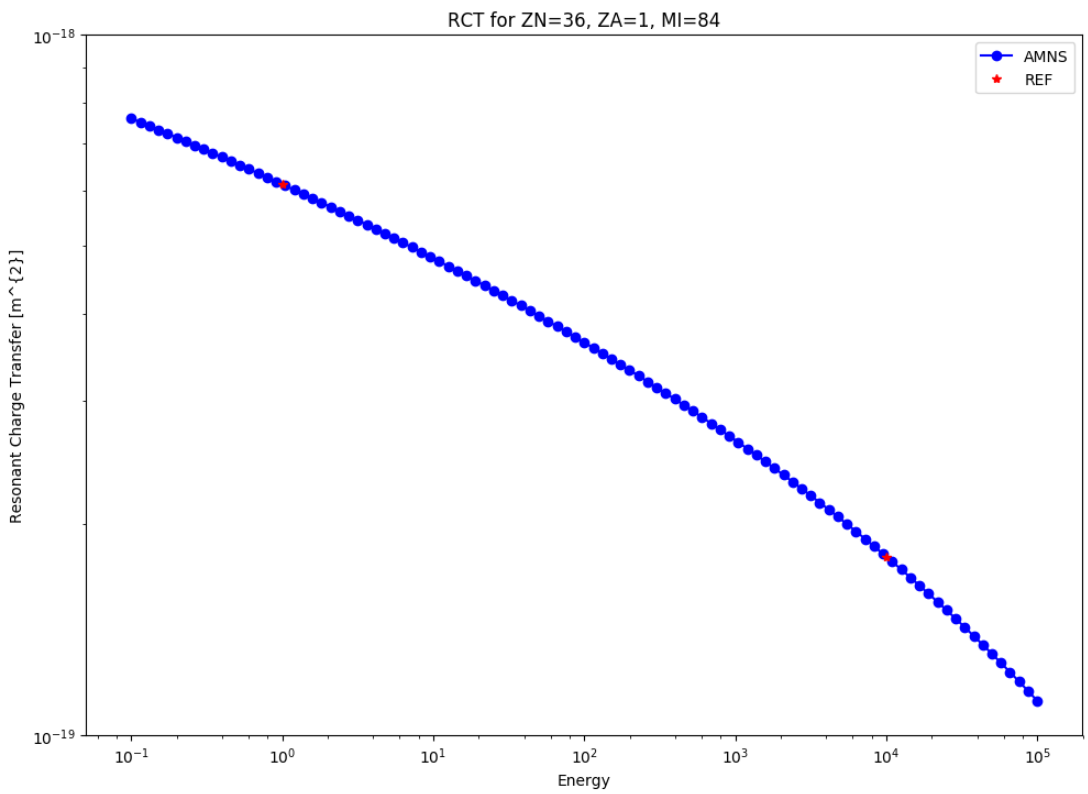


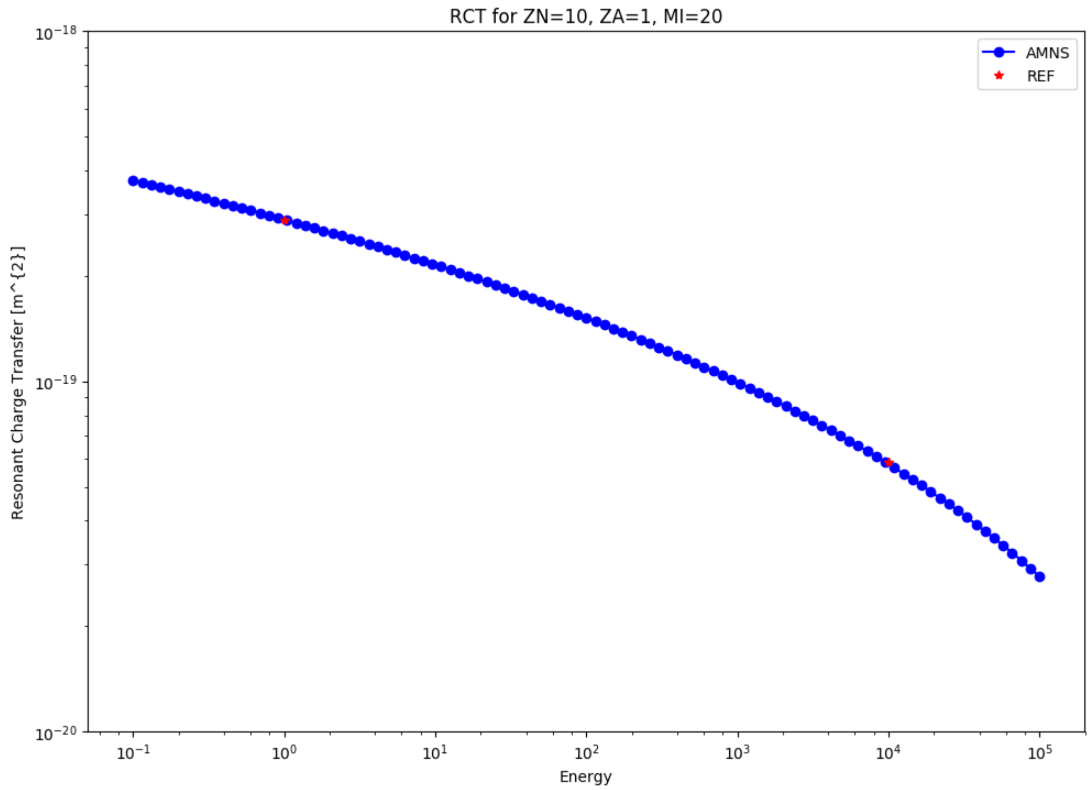
RC for ne=1e+20, ZN=6, ZA=1, MI=0 (C1+)
AMNS
REF
Recombination [m^{3} s^{-1}]
Te

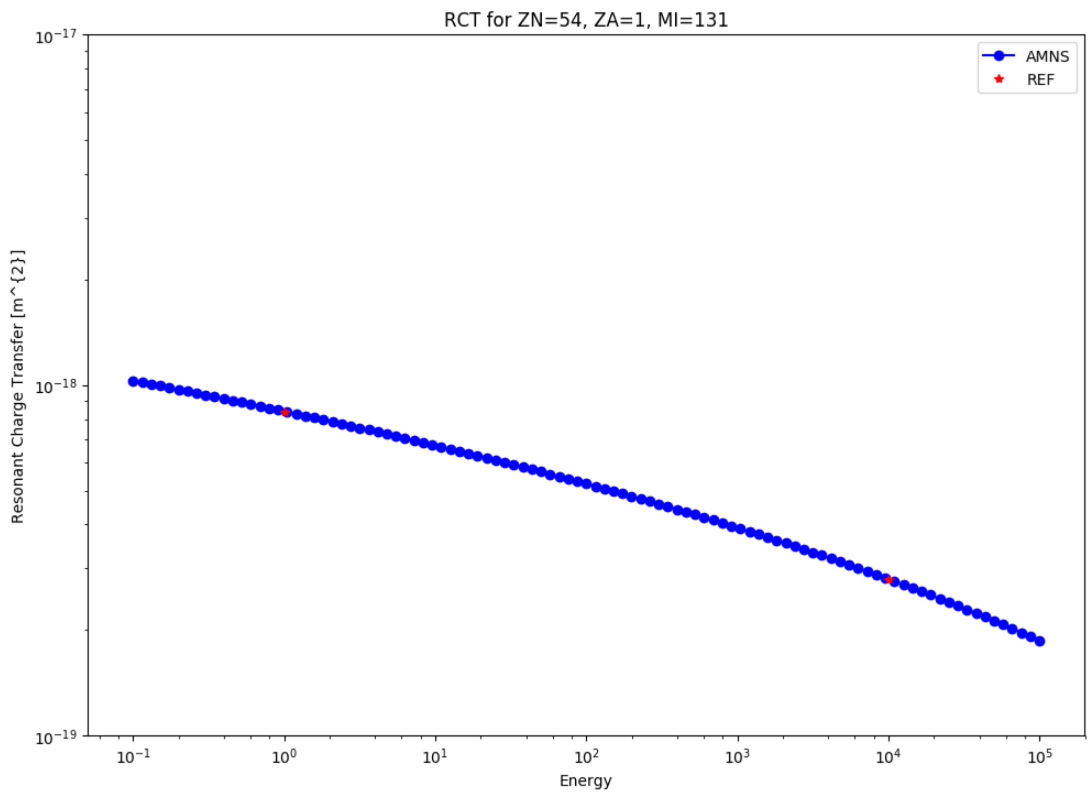


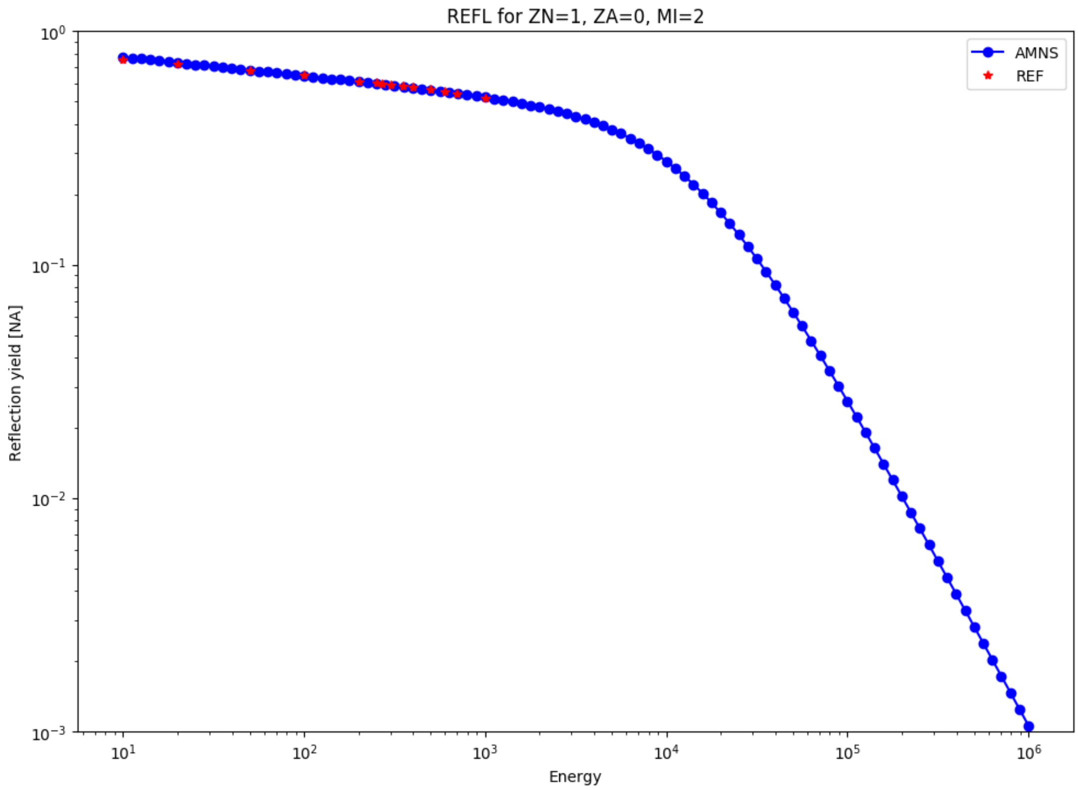
RCT for ZN=18, ZA=1, MI=40
AMNS
REF
Resonant Charge Transfer [m^{2}]
Energy

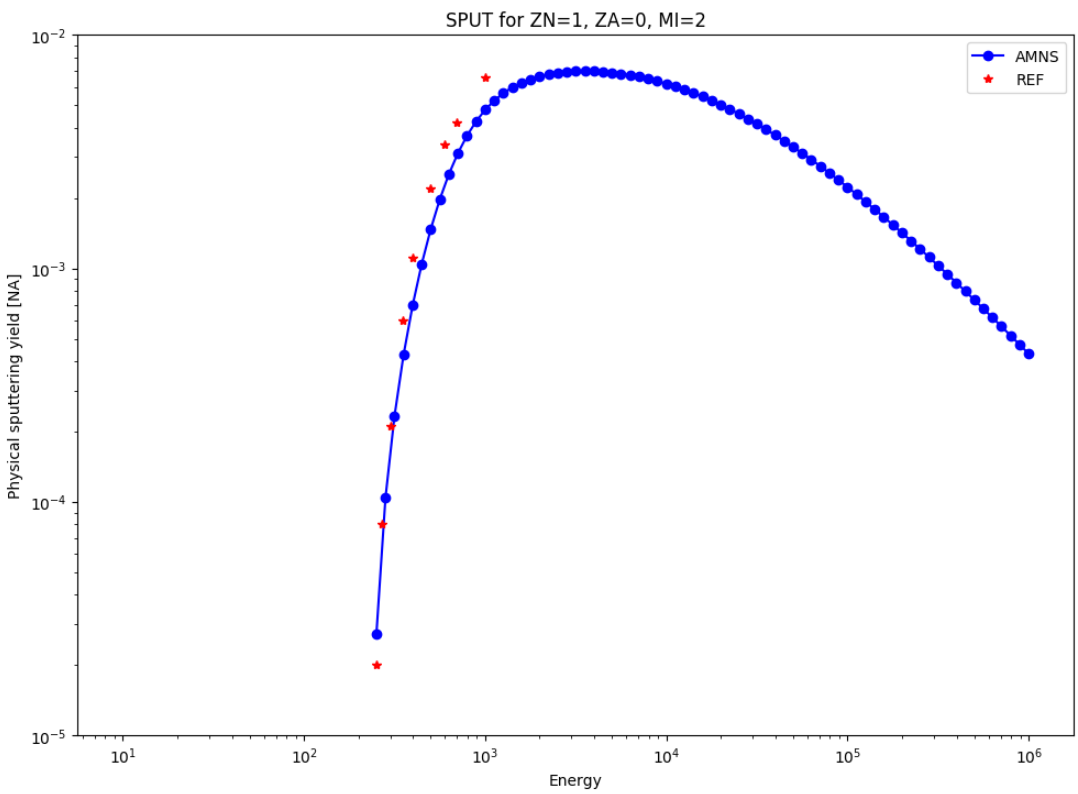

RCT for ZN=2, ZA=1, MI=4
AMNS
REF
Resonant Charge Transfer [m^{2}]
Energy

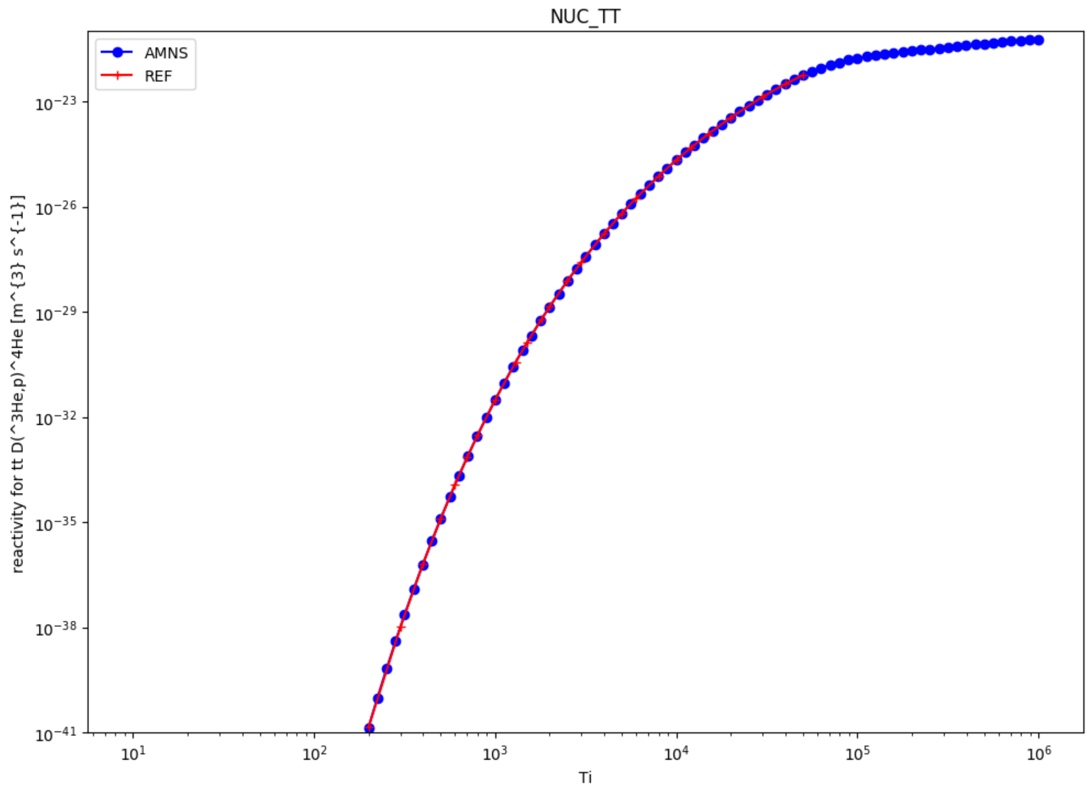

RCT for ZN=36, ZA=1, MI=84
AMNS
REF
Resonant Charge Transfer [m^{2}]
Energy

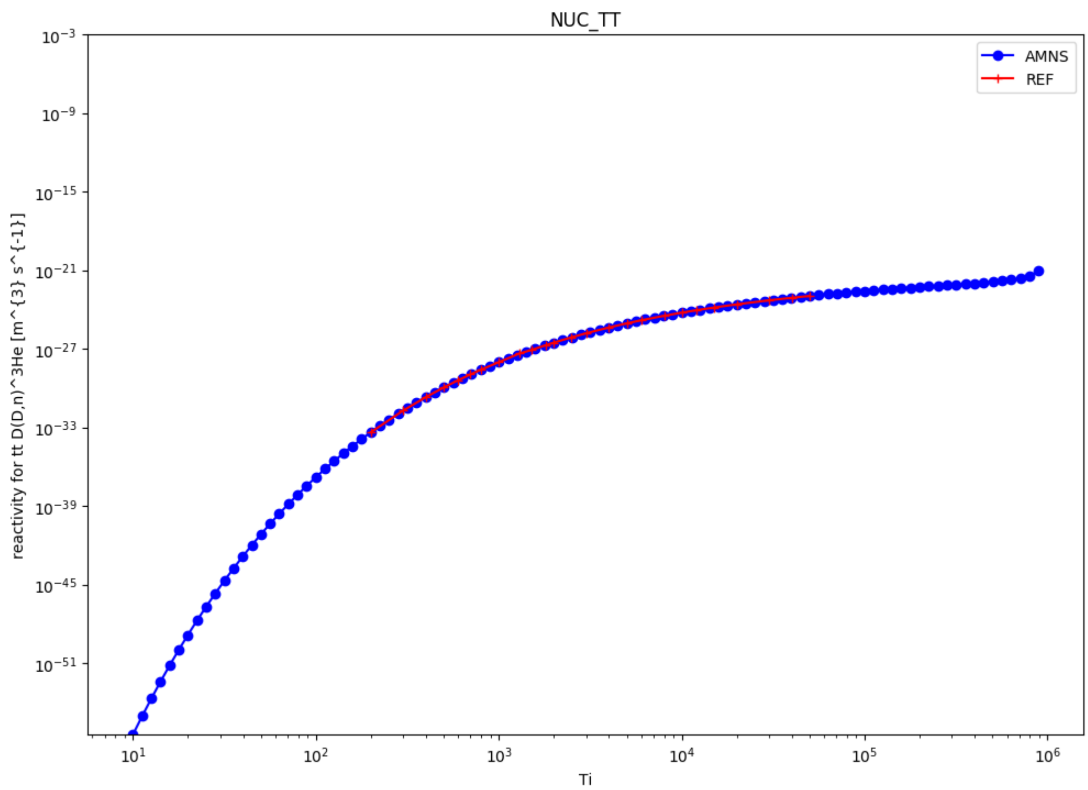

RCT for ZN=10, ZA=1, MI=20
AMNS
REF
Resonant Charge Transfer [m^{2}]
10^{-18}
10^{-19}
10^{-20}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
Energy

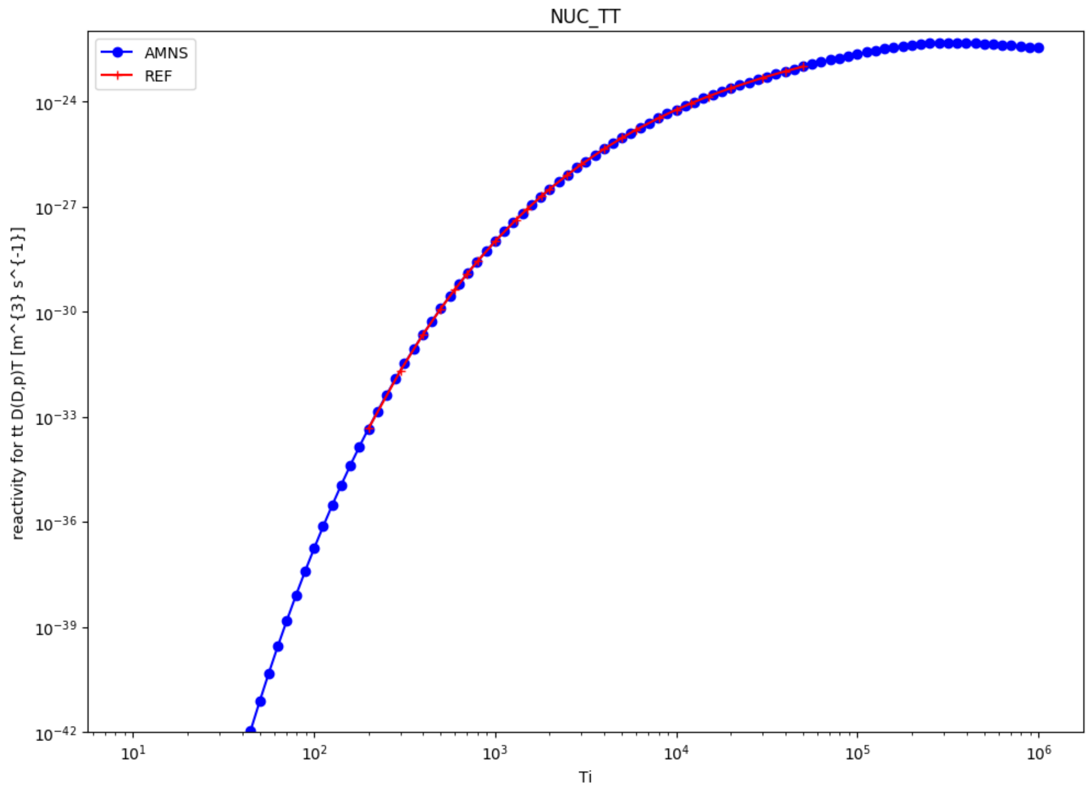

RCT for ZN=54, ZA=1, MI=131
AMNS
REF
Resonant Charge Transfer [m^{2}]
10^{-17}
10^{-18}
10^{-19}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
Energy


REFL for ZN=1, ZA=0, MI=2
AMNS
REF
Reflection yield [NA]
Energy

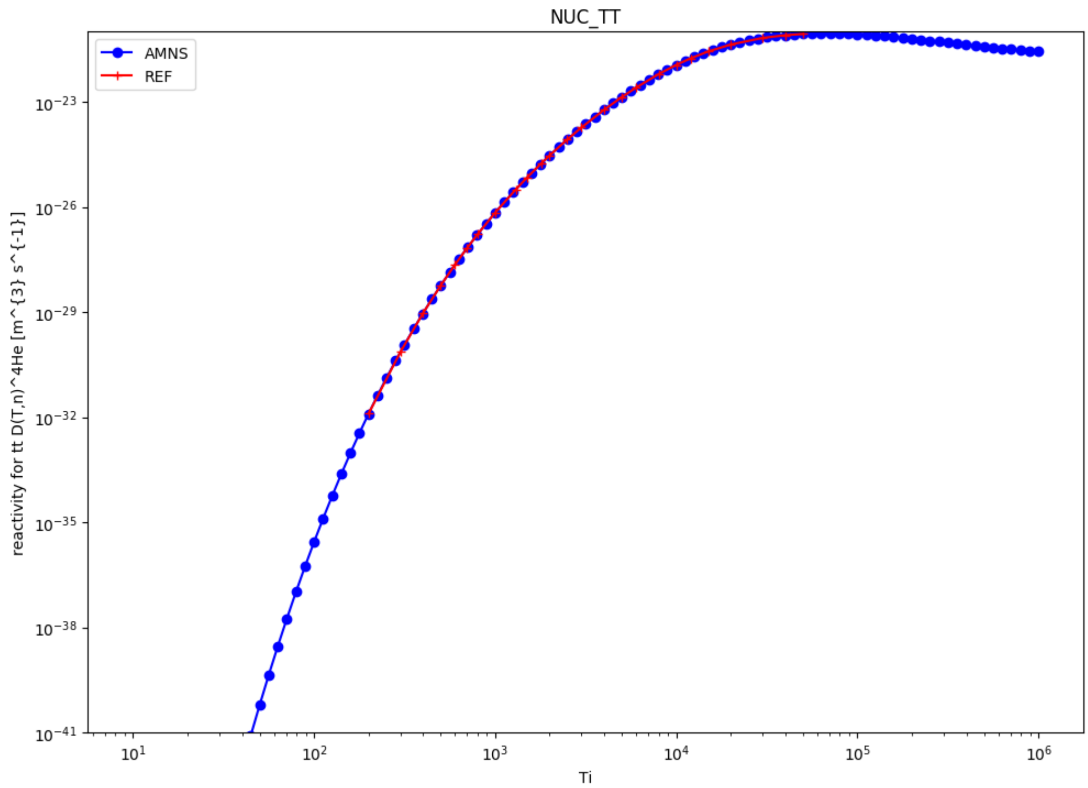

SPUT for ZN=1, ZA=0, MI=2
AMNS
REF
Physical sputtering yield [NA]
Energy


NUC_TT
AMNS
REF
reactivity for tt D(^3He,p)^4He [m^{3} s^{-1}]
Ti

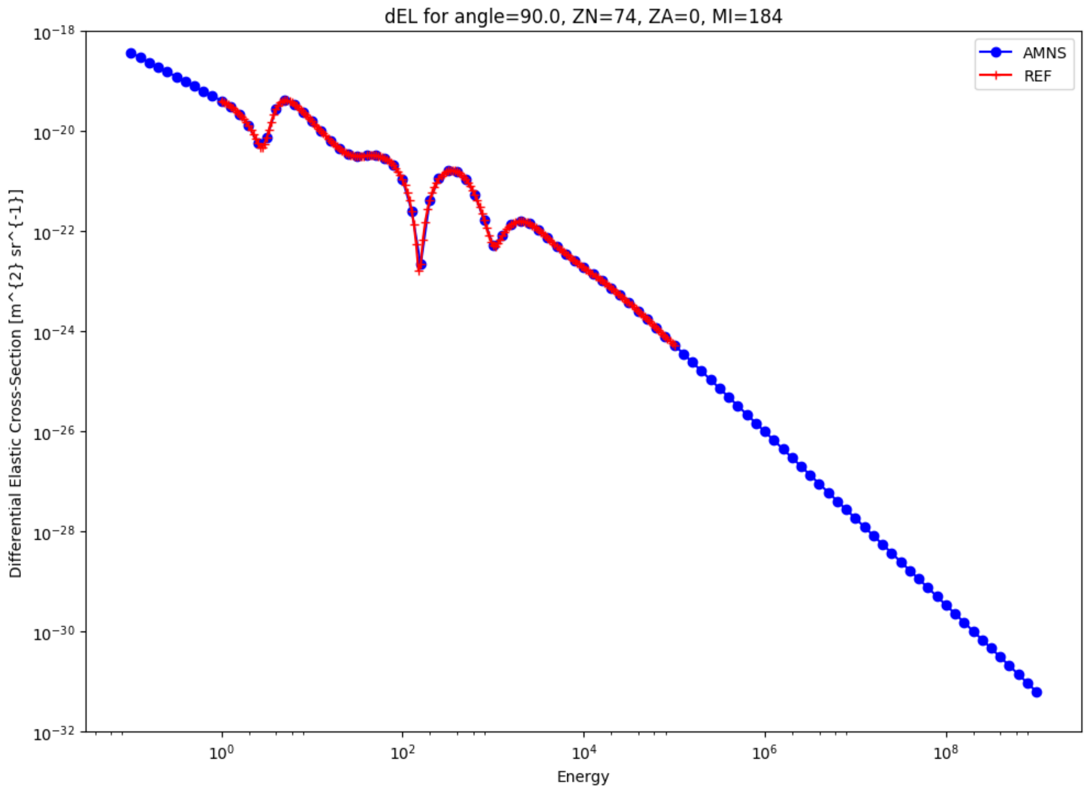

NUC_TT
AMNS
REF
reactivity for tt D(D,n)^3He [m^{3} s^{-1}]
Ti

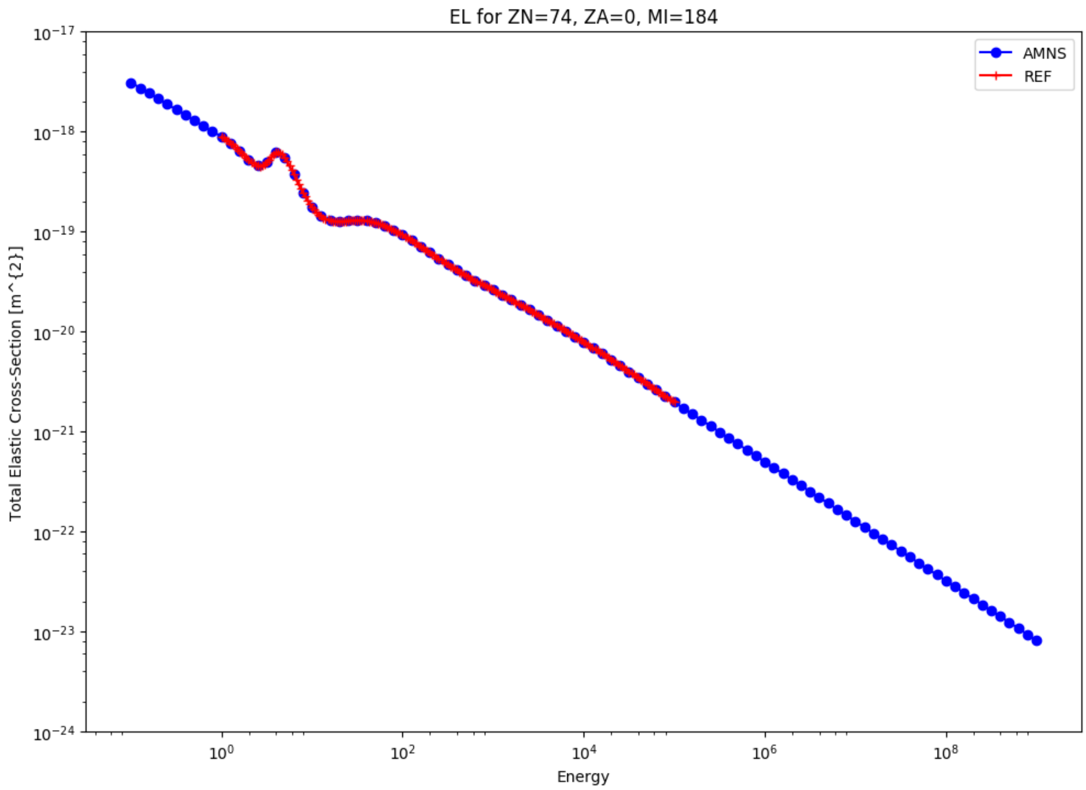


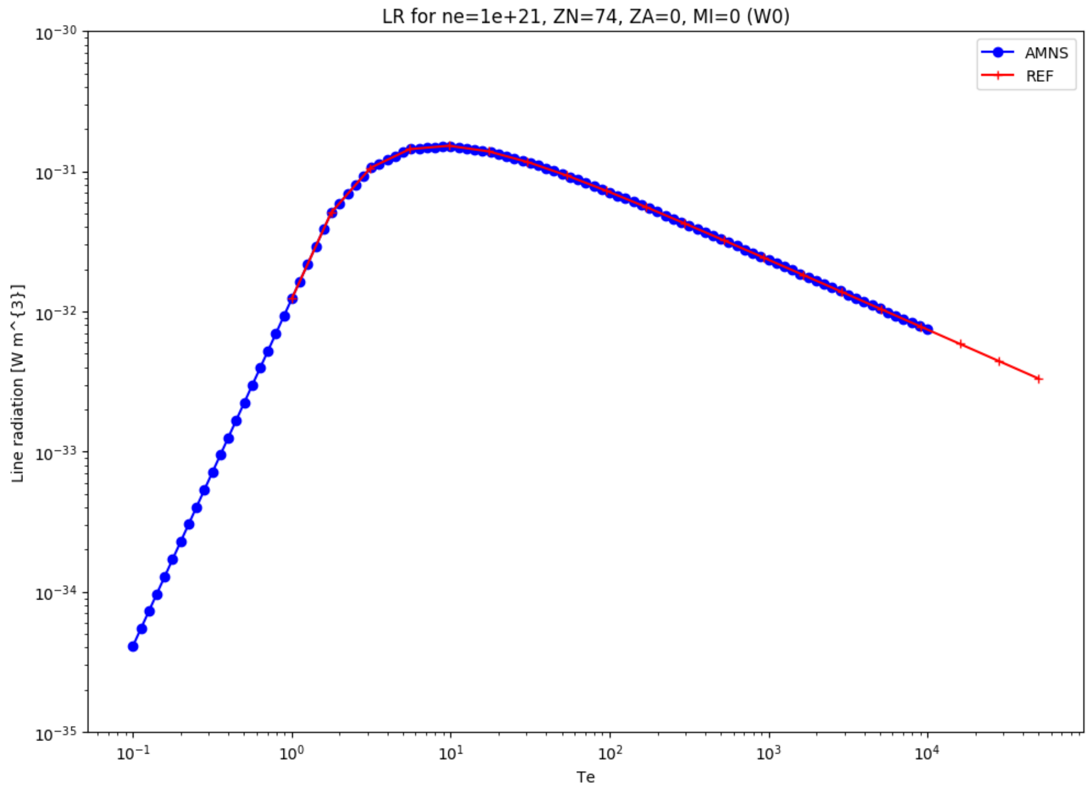
NUC_TT
AMNS
REF
reactivity for tt D(D,p)T [m^{3} s^{-1}]
Ti



NUC_TT
AMNS
REF
reactivity for tt D(T,n)^4He [m^{3} s^{-1}]
Ti


dEL for angle=90.0, ZN=74, ZA=0, MI=184
Differential Elastic Cross-Section [m^{2} sr^{-1}]
Energy
AMNS
REF
10^{-18}
10^{-20}
10^{-22}
10^{-24}
10^{-26}
10^{-28}
10^{-30}
10^{-32}
10^{0}
10^{2}
10^{4}
10^{6}
10^{8}


EL for ZN=74, ZA=0, MI=184
Total Elastic Cross-Section [m^{2}]
Energy
AMNS
REF
10^{-17}
10^{-18}
10^{-19}
10^{-20}
10^{-21}
10^{-22}
10^{-23}
10^{-24}
10^{0}
10^{2}
10^{4}
10^{6}
10^{8}



3.9 AMNS Compositions

We look at the compositions sub-structure, and give an example

```
compositions%
        nuclei(:)%
                zn
                amn
                label
        ions(:)%
                nucindex
                zion
                imp_flag
                label
        impurities(:)%
                nucindex
                i_ion
                nzimp
                zmin
                zmax
                label
        neutralscomp(:)%
                neutcomp(:)%
                        nucindex
                        multiplicity
                type(:)%
                        id
                        flag
                        description
                label
```

We will consider the example of D+, T+, C1+ .. C6+, D2, DT, T2, D0 (cold), D0 (thermal), T0 (cold), T0 (thermal), C0 (cold), C0 (thermal)

```
compositions%nuclei(1)%zn = 1.0
compositions%nuclei(1)%amn = 2.0
compositions%nuclei(1)%label = 'D'

compositions%nuclei(2)%zn = 1.0
compositions%nuclei(2)%amn = 3.0
compositions%nuclei(2)%label = 'T'

compositions%nuclei(3)%zn = 6.0
compositions%nuclei(3)%amn = 12.0
compositions%nuclei(3)%label = 'C'

compositions%ions(1)%nucindex = 1
compositions%ions(1)%zion = 1.0
compositions%ions(1)%imp_flag = 0
compositions%ions(1)%label = 'D+'

compositions%ions(2)%nucindex = 2
compositions%ions(2)%zion = 1.0
compositions%ions(2)%imp_flag = 0
compositions%ions(2)%label = 'T+'

compositions%impurities(1)%nucindex = 3
compositions%impurities(1)%i_ion = 0
compositions%impurities(1)%nzimp = 6
compositions%impurities(1)%zmin = 1.0 2.0 3.0 4.0 5.0 6.0
compositions%impurities(1)%zmax = 1.0 2.0 3.0 4.0 5.0 6.0
compositions%impurities(1)%label = 'C1+' 'C2+' 'C3+ 'C4+' 'C5+' 'C6+'

compositions%neutralscomp(1)%neutcomp(1)%nucindex = 1
compositions%neutralscomp(1)%neutcomp(1)%multiplicity = 2
compositions%neutralscomp(1)%type(1)%id = 'cold'
compositions%neutralscomp(1)%type(1)%flag = 0
compositions%neutralscomp(1)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(1)%label = 'D2'

compositions%neutralscomp(2)%neutcomp(1)%nucindex = 1
compositions%neutralscomp(2)%neutcomp(1)%multiplicity = 1
compositions%neutralscomp(2)%neutcomp(2)%nucindex = 2
compositions%neutralscomp(2)%neutcomp(2)%multiplicity = 1
compositions%neutralscomp(2)%type(1)%id = 'cold'
compositions%neutralscomp(2)%type(1)%flag = 0
compositions%neutralscomp(2)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(2)%label = 'DT'

compositions%neutralscomp(3)%neutcomp(1)%nucindex = 2
compositions%neutralscomp(3)%neutcomp(1)%multiplicity = 2
compositions%neutralscomp(3)%type(1)%id = 'cold'
compositions%neutralscomp(3)%type(1)%flag = 0
compositions%neutralscomp(3)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(3)%label = 'D2'

compositions%neutralscomp(4)%neutcomp(1)%nucindex = 1
compositions%neutralscomp(4)%neutcomp(1)%multiplicity = 1
compositions%neutralscomp(4)%type(1)%id = 'cold'
compositions%neutralscomp(4)%type(1)%flag = 0
compositions%neutralscomp(4)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(4)%type(2)%id = 'thermal'
```

```
compositions%neutralscomp(4)%type(2)%flag = 1
compositions%neutralscomp(4)%type(2)%description 'Thermal neutrals'
compositions%neutralscomp(4)%label = 'D0'

compositions%neutralscomp(5)%neutcomp(1)%nucindex = 2
compositions%neutralscomp(5)%neutcomp(1)%multiplicity = 1
compositions%neutralscomp(5)%type(1)%id = 'cold'
compositions%neutralscomp(5)%type(1)%flag = 0
compositions%neutralscomp(5)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(5)%type(2)%id = 'thermal'
compositions%neutralscomp(5)%type(2)%flag = 1
compositions%neutralscomp(5)%type(2)%description 'Thermal neutrals'
compositions%neutralscomp(5)%label = 'T0'

compositions%neutralscomp(6)%neutcomp(1)%nucindex = 3
compositions%neutralscomp(6)%neutcomp(1)%multiplicity = 1
compositions%neutralscomp(6)%type(1)%id = 'cold'
compositions%neutralscomp(6)%type(1)%flag = 0
compositions%neutralscomp(6)%type(1)%description = 'Cold neutrals'
compositions%neutralscomp(6)%type(2)%id = 'thermal'
compositions%neutralscomp(6)%type(2)%flag = 1
compositions%neutralscomp(6)%type(2)%description 'Thermal neutrals'
compositions%neutralscomp(6)%label = 'C0'
```

The plasma%species_index entries for the wall0d component of the wall CPO could then look like this:

```
wall%wall0d%plasma%species_index( 1,1) = 1   % D1+
wall%wall0d%plasma%species_index( 1,2) = 1
wall%wall0d%plasma%species_index( 1,3) = 0

wall%wall0d%plasma%species_index( 2,1) = 1   % T1+
wall%wall0d%plasma%species_index( 2,2) = 1
wall%wall0d%plasma%species_index( 2,3) = 0

wall%wall0d%plasma%species_index( 3,1) = 2   % C1+
wall%wall0d%plasma%species_index( 3,2) = 1
wall%wall0d%plasma%species_index( 3,3) = 1

wall%wall0d%plasma%species_index( 4,1) = 2   % C2+
wall%wall0d%plasma%species_index( 4,2) = 1
wall%wall0d%plasma%species_index( 4,3) = 2

wall%wall0d%plasma%species_index( 5,1) = 2   % C3+
wall%wall0d%plasma%species_index( 5,2) = 1
wall%wall0d%plasma%species_index( 5,3) = 3

wall%wall0d%plasma%species_index( 6,1) = 2   % C4+
wall%wall0d%plasma%species_index( 6,2) = 1
wall%wall0d%plasma%species_index( 6,3) = 4

wall%wall0d%plasma%species_index( 7,1) = 2   % C5+
wall%wall0d%plasma%species_index( 7,2) = 1
wall%wall0d%plasma%species_index( 7,3) = 5

wall%wall0d%plasma%species_index( 8,1) = 2   % C6+
wall%wall0d%plasma%species_index( 8,2) = 1
wall%wall0d%plasma%species_index( 8,3) = 6

wall%wall0d%plasma%species_index( 9,1) = 3   % D, thermal
wall%wall0d%plasma%species_index( 9,2) = 4
```

```
wall%wall0d%plasma%species_index( 9,3) = 2

wall%wall0d%plasma%species_index(10,1) = 3   % T, thermal
wall%wall0d%plasma%species_index(10,2) = 5
wall%wall0d%plasma%species_index(10,3) = 2

wall%wall0d%plasma%species_index(11,1) = 3   % C, thermal
wall%wall0d%plasma%species_index(11,2) = 6
wall%wall0d%plasma%species_index(11,3) = 2

wall%wall0d%plasma%species_index(12,1) = 3   % D2, cold
wall%wall0d%plasma%species_index(12,2) = 1
wall%wall0d%plasma%species_index(12,3) = 1

wall%wall0d%plasma%species_index(13,1) = 3   % DT, cold
wall%wall0d%plasma%species_index(13,2) = 2
wall%wall0d%plasma%species_index(13,3) = 1

wall%wall0d%plasma%species_index(14,1) = 3   % T2, cold
wall%wall0d%plasma%species_index(14,2) = 3
wall%wall0d%plasma%species_index(14,3) = 1

wall%wall0d%plasma%species_index(15,1) = 3   % D, cold
wall%wall0d%plasma%species_index(15,2) = 4
wall%wall0d%plasma%species_index(15,3) = 1

wall%wall0d%plasma%species_index(16,1) = 3   % T, cold
wall%wall0d%plasma%species_index(16,2) = 5
wall%wall0d%plasma%species_index(16,3) = 1

wall%wall0d%plasma%species_index(17,1) = 3   % C, cold
wall%wall0d%plasma%species_index(17,2) = 6
wall%wall0d%plasma%species_index(17,3) = 1
```

last update: 2013-03-07 by dpc

3.10 Private AMNS pages

For access to the private AMNS pages [40], an AMNS password is needed.

last update: 2018-05-25 by g2dpc

4 EDRG

EDRG (EXPERIMENTALISTS AND DIAGNOSTICIANS RESOURCE GROUP) is one of the two projects falling under the coordination of the Leadership of the EU Task Force for Integrated Tokamak Modelling (ITM) and is the privileged contact of the ITM with the experimentalists and diagnosticians community.

4.1 Scientific Rationale and Main Objectives

The consolidation of the validated suite of simulation tools that the ITM aims to provide for ITER and existing experiments requires a strong interaction with the experimentalists and diagnosticians fusion community. The former are promoted by the Experimentalist and Diagnosticians Resource Group (EDRG).
Acting as a contact point within the ITM towards the full range of experiments and some of the EFDA Topical Groups and Working Group initiatives, the EDRG group promotes the provision of a machine independent approach to modelling, to encompass realistic operational conditions and to facilitate verification (29) and validation (29) of the modelling codes.

[40] https://www.efda-itm.eu/AMNS/html/index.html

The groups action comprises

1. Developing a comprehensive set of Machine descriptions (29) and experimental data mappings (29) to access experimental databases from european devices.

2. The coordination of the overall plasma control activities to be carried within the ITM-TF and in liaison with other EFDA initiatives.

3. The integration of synthetic diagnostic modules to assist Verification and Validation of ITM modules and virtual PCS.

4.2 Meetings

The EDRG group, as most of the ITM projects, holds meetings that aim at monitoring the internal progress on the EDRG tasks. In addition, meetings are organized (mostly via VC) whenever experts from the Experimentalist and Diagnosticians community or other representatives of the european fusion devices engaged in the ITM activities require assistance from the ITM in EDRG related activities. This is particularly relevant for the development of the Machine Descriptions and Data Mappings and for the integration of synthetic diagnostics. A list of all the relevant meetings that took place in 2009 and 2010 is found below.

4.2.1 2009

4.2.1.1 EDRG kick-off 30th January

- Overview of EDRG for 2009 (R.Coelho) [41]
- Experimental data retrieval (F.Imbeaux) [42]
- Minutes (R. Coelho) [43]

4.2.1.2 3D Machine Description kick-off 4th June

- Minutes of the Meeting (R.Coelho) [44]
- Agenda and 3D related tasks (R.Coelho) [45]
- CAD to Physics Codes (W.Arter) [46]
- CAD fix to Physics Codes (W.Arter) [47]
- ASCOT 3D wall (S.Sipil) [48]
- CEDRES++ full 2D domain meshing (G.Huysmans) [49]
- Potential 3D codes for the ITM (C.Konz) [50]
- 3D codes on the IMP3 forge (D.Coster) [51]
- ASPOEL mesh generator (F.Subba) [52]

4.2.2 2010

4.2.2.1 2010/09/13-17 ITM General Meeting in Lisbon

4.2.2.1.1 Posters

- *3D Machine Description of Fusion Devices* (pdf [53]), by T. Lunt et al.

[41] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[42] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[43] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[44] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[45] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[46] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[47] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[48] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[49] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[50] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[51] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[52] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[53] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf

- *Simulation of MSE spectra from predictive fusion plasma simulations* (pdf [54]), by A. Dinklage et al.
- *European Reflectometer Code Consortium (ERCC) activities* (ppt [55]), by E. Blanco et al.

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last update: 2011-02-16 by coster

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last update: 2010-11-23 by coelho

4.3 Working Sessions

With the consolidation of the ITM-TF infrastructure and maturing tools, there are inevitably some interdependencies in the workprogramme of the integrated modelling projects. A new feature of the 2010 implementation of the ITM-TF work programme is the focused use of coordinated joint activities as integral part of the work. These joint activities will be organised in working sessions and code camps (working sessions supported by the integration team) and supported under mobility.

4.3.1 2009

4.3.1.1 Control Meeting at Cadarache, 22-23 June

The meeting was a kick-off meeting on the overall activities of the ITM-TF focusing on plasma control. A particular emphasis on free boundary equilibrium codes and position+shape control was given. The need for multiplexer/de-multiplexer actors (29) was highlighted in order to decouple the controller actors from any detail of the CPO (29) ontology, rendering the adaptation of control schemas much more flexible. A tentative workflow schema for plasma current control was produced. Foreseen obstacles for the coupling of feedback controlled free boundary equilibrium codes to the ETS were highlighted taking the learning curve from the DINA-CH+CRONOS package.

- Minutes of the working session (R.Coelho/T.Bolzonella) [56]
- Welcome (R.Coelho) [57]
- General ITM overview (R.Coelho) [58]
- Controller schemes from experiments (T.Bolzonella) [59]
- IMP1 control related activities (G.Huysmans) [60]
- EFDA Feedback Control Goup summary (A.Pironti) [61]
- Flight Simulator for controlling plasma discharges (N.Ravenel) [62]
- DINA-CH + CRONOS overview (K.Besseghir) [63]
- ITM control workflow concepts (F.Imbeaux) [64]
- CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [65]

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[54] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[55] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[56] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[57] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[58] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[59] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[60] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[61] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[62] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[63] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[64] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[65] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt

4.3.2 2010

4.3.2.1 3D wall at Garching, 18 March

The meeting was dedicated to assess the ongoing status of the defeaturing tool, challenges on targeting real device CAD representations of some devices and interfacing with the GRID CPO.

- Minutes (R. Coelho) [66]
- Overview of ITM datastructure heading to 3D (R. Coelho) [67]
- 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [68]
- 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [69]
- Edge CPO and grid structuring (F. Subba) [70]

4.3.2.2 Control Activities at Cadarache, 28 June - 1 July

A joint working session and Code camp to discuss the ongoing activities related to control on the ITM-TF (at both project and task level) and to provide training with the first test cases of the Control Toolbox, for SCICOS and SIMULINK born control diagrams. Simple PID cases suited perfectly the training purpose and evidenced the valuable ongoing effort. The timeline for fully integrating a free boundary equilibrium code under feedback shape control was discussed. Improvements on the kepler (29) actor management methods and on the automation of the actor creation from C code emanating from the SCICOS/SIMULINK diagrams were discussed.

- Welcome and Agenda (T. Bolzonella) [71]
- Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [72]
- Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [73]
- ISIP-ACT12 Control Toolbox (N. Ravenel) [74]
- EDRG Control related activities in the WP-2010 (R. Coelho) [75]
- ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [76]
- Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [77]
- Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [78]
- CREATE-NL adaptation to ITM need (M. Mattei) [79]
- Approach on parallel I/O (A. Galonska) [80]
- KEPLER Actor Generation from Simulink Components (G. Manduchi) [81]
- MARS-F on ITM (D. Yadykin) [82]
- Multiplexer/De-multiplexer (O. Hoenon) [83]

[66] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[67] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[68] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[69] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[70] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[71] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[72] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[73] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf
[74] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
[75] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[76] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[77] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[78] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[79] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
[80] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Parallel_IO_Galonska.pdf
[81] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/SimulinkActorGeneration.ppt
[82] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[83] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt

- Kepler workflow design and directors (29) (B. Guillerminet) [84]
- Feedback Control WG ongoing effort (D. Mazon) [85]

4.3.2.3 ERC3D integration on the ITM infrastructure, 5-6 July

A working session promoted to discuss the integration of the ERC3D reflectometer package on the ITM infrastructure. The discussion focused on particular aspects of the datastructure that need to be developed, in particular the Antenna and Output CPOs to be plugged to the code. Meshing interfacing, code parameters and C interface were also discussed.

- ITM datastructure and tools (R. Coelho) [86]
- Code integration in IMP12 (C. Konz) [87]
- The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [88]
- Summary discussion (R. Coelho) [89]

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last update: 2010-12-09 by konz

4.4 Calls for Participation and Reporting

Below is the list of the EDRG Call for Participation (CfP) and Annual Reporting since 2009.

4.4.1 2009

- Call for Participation [90]
- Annual Reporting [91]

4.4.2 2010

- Call for Participation [92]
- Annual Reporting [93]

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last update: 2011-03-14 by coelho

4.5 Machine Descriptions and Data Mappings

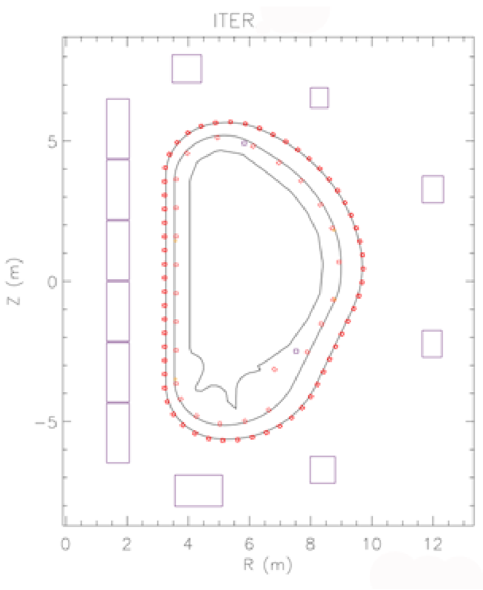
At the forefront of the EDRG activities, the consolidation of the machine descriptions (29) and data mappings (29) for the experimental data on the participating devices is of utmost importance.

[84] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[85] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[86] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[87] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[88] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[89] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[90] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[91] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[92] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf
[93] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf

4.5.1 Machine Descriptions

4.5.1.1 Background

The machine description (MD) of a device basically builds on the set of engineering and diagnostic settings characterising any device. This includes, for instance, the vessel/limiter description (for the moment in R-Z domain only), the PF coils and circuiting and lines of sight of diagnostics (an example for ITER is seen below evidencing the vessel+limiter+pfsystems and magdiad CPOs).



In practice, all MD information is encapsulated in a XML file that emanates from the MD tagged datastructure schemas. A MD instance of a given device is then stored into the ITM db as shot 0 for that device database.
At data structure version 4.09a, the list of CPOs with machine description tags is indicated in the Figure below

- topinfo
- antennas
- ecediag
- fusiondiag
- interfdiag
- ironmodel
- langmuirdiag
- limiter
- magdiag
- msediag
- pfsystems
- polardiag
- toroidfield
- tsdiag
- vessel

4.5.1.2 MD content on dataversions

4.07b	4.08a	4.08b	4.09a
antennas, interfdiag, ironmodel, limiter, magdiag, msediag, pfsystems, polardiag, toroidfield, vessel	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, msediag, pfsystems, polardiag, reference, toroidfield, tsdiag, vessel	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas, ecediag, fusiondiag, interfdiag, ironmodel, langmuirdiag, limiter, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, vessel

4.5.1.3 Tutorial and specific information on some CPOs

- A good introduction to the machine description concept is found in this User Guide [94].

[94] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt

- Up to data version 4.07c, the geometry of lines of sight used in some diagnostics (interfdiag and polardiag) was characterized by two angles (poloidal and toroidal). A caveat was found, leading to the adoption of a new set of angles as described in this report [95]. The pivot points became 3 (previously 2) to encompass slightly different entry/exit positions for the reflected beams.

- From data version 4.09a, the limiter, nbi and antennas CPOs use arrays of structures data types. This enabled a more refined description of plasma facing components and the divertor region and both open and closed 'tile' elements. Each NBI and antenna unit is also a dedicated structure.

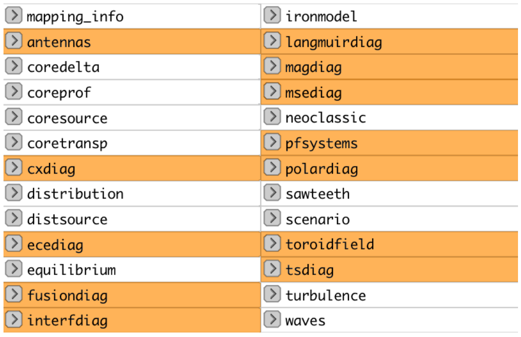
- Detailed definitions are available for Flux loop position [96], PFconnections [97], Langmuir probes [98] and Fusion CPO [99].

4.5.2 Data Mappings

4.5.2.1 Background

In regard to the experimental data from a particular shot/device set, the ITM had to develop its own tool to retrieve the data from the experimental databases and populate the corresponding ITM db entry since the latter rarely adopt the same datastructure ontology and different methods/implementation for the databases might exist on different devices. A XML file contains all the mapping essentials, e.g. download method, local signal names, gains and offsets, time base and eventual interpolation option to ensure that only one time base is set for each CPO (29) that is built from multiple local signals. A java code (exp2ITM developed under ISIP), with the MD and DM files as inputs, is then run to connect to the local device database, retrieve the required experimental data and populate the ITM db instance for that shot/device and dataversion.

At data structure version 4.09a, the list of CPOs with data mappings tags is indicated in the Figure below (experimental signals are colored in orange; mappings to other CPOs, e.g. equilibrium or coreprof have been set in order to assist the retrieval of simulated data from other databases, e.g. JSP, JSPC)



4.5.2.2 DM content on dataversions

4.07b	4.08a	4.08b	4.09a
antennas, interfdiag, ironmodel, magdiag, msediag, pfsystems, polardiag, toroidfield	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag , coredelta, coreprof, coretransp, distribution, distsource, equilibrium, neoclassical, sawteeth, scenario, waves	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag , coredelta, coreprof, coretransp, distribution, distsource, equilibrium, neoclassical, sawteeth, scenario, turbulence, waves	antennas, cxdiag, ecediag, fusiondiag, interfdiag, ironmodel, langmuirdiag, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag , coredelta, coreprof, coretransp, distribution, distsource, equilibrium, neoclassical, sawteeth, scenario, turbulence, waves

4.5.2.3 Tutorial on data mappings

- A good starting point to understand the basics of the data mapping concept and how to fill it with the device dependent referecing of the experimental data is found in this User Guide [100].

- A description on the data mapping concept and processing by exp2ITM (with usage tips) is found in this

[95] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Convention_angles_interfdiag.pdf
[96] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FLUXLOOPposition.pdf
[97] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[98] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_LangmuirCPO.pdf
[99] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FusionCPO.pdf
[100] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt

presentation [101].

For more updated information on the MD and DM activity please check the md_and_dm project [102] in Gforge (29)

last update: 2019-01-31 by g2dpc

4.6 Machine Description Database

UNDER CONSTRUCTION!

This database descrption is autogenerated from the Machine Description Database https://gforge6.eufus.eu/svn/itmshared/branches/machineDescriptionDatabase [103]

Below you find the integration status of each of the participating devices regarding the machine descriptions (29) and data mappings (29) . Run numbers and a short description is also given. The corresponding `shot=0` are found either under **/pfs/itmdb** (*to be updated*) or at the md_and_dm repository under **tags/candidates**

4.6.1 ITER

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.08b	1	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, pfsystems, toroidfield, vessel	pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	
4.09a	2	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, nbi, pfsystems, toroidfield, vessel	pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	- 2D cross section of ITER in RUN2 [104] - Top view of ITER in RUN2 [105]
4.10a	2	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, nbi, pfsystems, toroidfield, vessel	NBI box 1/2 is Off-axis/Off-axis and there are just 2 units (4x4 section, each sub-unit with 80 beamlets); divertor rail and support passive structures included; pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	- 2D cross section of ITER in RUN2 [106] - Top view of ITER in RUN2 [107]
4.10a	3	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, nbi, pfsystems, toroidfield, vessel	NBI box 1/2 is Off-axis/On-axis and there are just 2 units (4x4 section, each sub-unit with 80 beamlets); divertor rail and support passive structures included; pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	- 2D cross section of ITER in RUN3 [108] - Top view of ITER in RUN3 [109]
4.10a	4	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, nbi, pfsystems, toroidfield, vessel	NBI box 1/2 is On-axis/Off-axis and there are just 2 units (4x4 section, each sub-unit with 80 beamlets); divertor rail and support passive structures included; pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	- 2D cross section of ITER in RUN4 [110] - Top view of ITER in RUN4 [111]
4.10a	5	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, nbi, pfsystems, toroidfield, vessel	NBI box 1/2 is On-axis/On-axis and there are just 2 units (4x4 section, each sub-unit with 80 beamlets); divertor rail and support passive structures included; pfcoils only contains geometry settings; missing turns on toroidfield; only r,z,phi and angles on magdiag/bprobes	- 2D cross section of ITER in RUN5 [112] - Top view of ITER in RUN5 [113]

4.6.2 JT60SA

[101] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[102] https://gforge6.eufus.eu/project/md_and_dm/
[103] https://gforge6.eufus.eu/svn/itmshared/branches/machineDescriptionDatabase
[104] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN2.eps
[105] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN2_top.eps
[106] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN2_410a.eps
[107] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN2_410a_top.eps
[108] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN3_410a.eps
[109] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN3_410a_top.eps
[110] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN4_410a.eps
[111] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN4_410a_top.eps
[112] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN5_410a.eps
[113] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_ITER_RUN5_410a_top.eps

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10b	2	rcoelho `tags/candidates`	1 - 999999999	nbi, pfsystems, wall	Data derived from the files and the beamlets come from files built by Matteo using the grid layout we got in January 2017. All the data is derived from the beamlets layout except for the focusing (infinity since parallel beam assumption is used) and the sizes (derived from the excel+pdf). The order of the NNBI is from bottom to top for unit U and then from bottom to top for unit L	- 2D cross section of JT60SA in RUN2 [114] - Top view of JT60SA in RUN2 [115]

4.6.3 JET

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.06b	2	rcoelho `tags/candidates`	68613 - 78157	ironmodel, limiter, magdiag, pfsystems, toroidfield, vessel	pfcoils only contains geometry settings	
4.07b	3	rcoelho `tags/candidates`	68613 - 78157	interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the line integrals were still using the old convention	
4.08a	4	rcoelho `tags/candidates`	68613 - 78157	interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the line integrals have new angles convention	- 2D cross section of JET in RUN4 [116] - Top view of JET in RUN4 [117]
4.08b	5	rcoelho `tags/candidates`	68613 - 71875	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the nbi is valid for 62051-71875 and 78299-79853 but the mapping file is not compatible and thus left void	- 2D cross section of JET in RUN5 [118] - Top view of JET in RUN5 [119]
4.09a	6	rcoelho `tags/candidates`	68613 - 71875	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the nbi is valid for 62051-71875 and 78299-79853; the mapping file is compatible but only the ”timebase” version that fixed NBI4/POW1 as time base; NBI and limiter now cast as arrays of structures; iron model with permeability	- 2D cross section of JET in RUN6 [120] - Top view of JET in RUN6 [121]
4.09a	7	rcoelho `tags/candidates`	71876 - 78298	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the nbi is valid for 71876-78298; the mapping file is compatible but only the ”timebase” version that fixed NBI4/POW1 as time base; NBI and limiter now cast as arrays of structures; iron model with permeability	- 2D cross section of JET in RUN7 [122] - Top view of JET in RUN7 [123]
4.09a	8	rcoelho `tags/candidates`	78299 - 79853	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the nbi is valid for 78299-79853; the mapping file is compatible but only the ”timebase” version that fixed NBI4/POW1 as time base; NBI and limiter now cast as arrays of structures; iron model with permeability	
4.09a	9	rcoelho `tags/candidates`	59754 - 59757	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	pfcoils only contains geometry settings; the nbi is valid for 78299-79853; the mapping file is compatible but only the ”timebase” version that fixed NBI4/POW1 as time base; NBI and limiter now cast as arrays of structures; iron model with permeability	
4.10a	6	rcoelho	68613 - 71875		Features a wall2d%vessel with blocks of dedicated resistivity and divertor elements passive; pfcoils only contains geometry settings; the nbi is valid for 62051-71875 and 78299-79853 (Octant4_UP167_Octant8_UP167); ”timebase” in mapping file tied to NBI4/POW1; NBI and limiter cast as arrays of structures; iron model with permeability.	- 2D cross section of JET in RUN6 [124] - Top view of JET in RUN6 [125]

[114] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JT60SA_RUN2.eps`
[115] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JT60SA_RUN2_top.eps`
[116] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN4.eps`
[117] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN4_top.eps`
[118] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN5.eps`
[119] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN5_top.eps`
[120] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN6.eps`
[121] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN6_top.eps`
[122] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN7.eps`
[123] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN7_top.eps`
[124] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN6_410a.eps`
[125] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN6_410a_top.eps`

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10a	7	rcoelho	71875 - 78298	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	Features a wall2d%vessel with blocks of dedicated resistivity and divertor elements passive; pfcoils only contains geometry settings; the nbi is valid for 71875-78298 (Octant4_UP17_Octant8_UP167); "timebase" in mapping file tied to NBI4/POW1; NBI and limiter cast as arrays of structures; iron model with permeability.	- 2D cross section of JET in RUN7 [126] - Top view of JET in RUN7 [127]
4.10a	8	rcoelho	78299 - 79853		Features a wall2d%vessel with blocks of dedicated resistivity and divertor elements passive; pfcoils only contains geometry settings; the nbi is valid for 62051-71875 and 78299-79853 (Octant4_UP167_Octant8_UP167); "timebase" in mapping file tied to NBI4/POW1; NBI and limiter cast as arrays of structures; iron model with permeability.	
4.09a	9	rcoelho `tags/candidates`	59754 - 59757	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	MD file custom made for the Langmuir set of data, not validated machine data used is valid for shot > 68613; pfcoils only contains geometry settings; the nbi is valid for 52888-61931; "timebase" in mapping file tied to NBI4/POW1; NBI and limiter cast as arrays of structures; iron model with permeability.	
4.10a	10	rcoelho	79854 - 100000	interfdiag, ironmodel, limiter, magdiag, mse, nbi, pfsystems, polardiag, toroidfield, vessel	The ILW configuration. Features a wall2d%vessel with blocks of dedicated resistivity and divertor elements passive; The only tangible change is on the limiter curve (HFS and top of device) but small; pfcoils only contains geometry settings; the nbi is valid for 62051-71875 and 78299-79853 (Octant4_UP167_Octant8_UP167); "timebase" in mapping file tied to NBI4/POW1; NBI and limiter cast as arrays of structures; iron model with permeability.	- 2D cross section of JET in RUN10 [128] - Top view of JET in RUN10 [129]
4.10b	1	rcoelho `tags/candidates`	31000 - 37996	antennas, ironmodel, magdiag, pfsystems, toroidfield	antennas (#31000); ironmodel (#31000); magdiag (#31000); pfsystems (#31000); toroidfield (#31000)	
4.10b	2	rcoelho `tags/candidates`	37997 - 38001	antennas, cxdiag, ironmodel, magdiag, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); pfsystems (#31000); toroidfield (#31000)	
4.10b	3	rcoelho `tags/candidates`	38002 - 39215	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#38002); pfsystems (#31000); toroidfield (#31000)	
4.10b	4	rcoelho `tags/candidates`	39216 - 39303	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#39216); pfsystems (#31000); toroidfield (#31000)	
4.10b	5	rcoelho `tags/candidates`	39304 - 39935	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#39304); pfsystems (#31000); toroidfield (#31000)	
4.10b	6	rcoelho `tags/candidates`	39936 - 39981	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#39936); pfsystems (#31000); toroidfield (#31000)	
4.10b	7	rcoelho `tags/candidates`	39982 - 40767	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#39982); pfsystems (#31000); toroidfield (#31000)	
4.10b	8	rcoelho `tags/candidates`	40768 - 40788	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#40768); pfsystems (#31000); toroidfield (#31000)	
4.10b	9	rcoelho `tags/candidates`	40789 - 44863	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#40789); pfsystems (#31000); toroidfield (#31000)	
4.10b	10	rcoelho `tags/candidates`	44864 - 44899	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#44864); pfsystems (#31000); toroidfield (#31000)	
4.10b	11	rcoelho `tags/candidates`	44900 - 46772	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#44900); pfsystems (#31000); toroidfield (#31000)	
4.10b	12	rcoelho `tags/candidates`	46773 - 46805	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#46773); pfsystems (#31000); toroidfield (#31000)	
4.10b	13	rcoelho `tags/candidates`	46806 - 48774	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#46806); pfsystems (#31000); toroidfield (#31000)	
4.10b	14	rcoelho `tags/candidates`	48775 - 48866	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#48775); pfsystems (#31000); toroidfield (#31000)	
4.10b	15	rcoelho `tags/candidates`	48867 - 48892	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#48867); pfsystems (#31000); toroidfield (#31000)	

[126] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN7_410a.eps
[127] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN7_410a_top.eps
[128] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN10_410a.eps
[129] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_JET_RUN10_410a_top.eps

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4.10b	16	rcoelho tags/candidates	48893 - 48901	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#48893); pfsystems (#31000); toroidfield (#31000)	
4.10b	17	rcoelho tags/candidates	48902 - 49162	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#48902); pfsystems (#31000); toroidfield (#31000)	
4.10b	18	rcoelho tags/candidates	49163 - 49188	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49163); pfsystems (#31000); toroidfield (#31000)	
4.10b	19	rcoelho tags/candidates	49189 - 49560	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49189); pfsystems (#31000); toroidfield (#31000)	
4.10b	20	rcoelho tags/candidates	49561 - 49565	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49561); pfsystems (#31000); toroidfield (#31000)	
4.10b	21	rcoelho tags/candidates	49566 - 49575	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49566); pfsystems (#31000); toroidfield (#31000)	
4.10b	22	rcoelho tags/candidates	49576 - 49576	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49576); pfsystems (#31000); toroidfield (#31000)	
4.10b	23	rcoelho tags/candidates	49577 - 49590	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49577); pfsystems (#31000); toroidfield (#31000)	
4.10b	24	rcoelho tags/candidates	49591 - 49849	antennas, cxdiag, ironmodel, magdiag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); nbi (#49591); pfsystems (#31000); toroidfield (#31000)	
4.10b	25	rcoelho tags/candidates	49850 - 50127	antennas, cxdiag, ironmodel, magdiag, msediag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#49591); pfsystems (#31000); toroidfield (#31000)	
4.10b	26	rcoelho tags/candidates	50128 - 50244	antennas, cxdiag, ironmodel, magdiag, msediag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#50128); pfsystems (#31000); toroidfield (#31000)	
4.10b	27	rcoelho tags/candidates	50245 - 52887	antennas, cxdiag, ironmodel, magdiag, msediag, nbi, pfsystems, toroidfield	antennas (#31000); cxdiag (#37997); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#50245); pfsystems (#31000); toroidfield (#31000)	
4.10b	28	rcoelho tags/candidates	52888 - 54345	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#50245); pfsystems (#31000); polardiag (#52888); toroidfield (#31000)	
4.10b	29	rcoelho tags/candidates	54346 - 55013	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#50245); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	30	rcoelho tags/candidates	55014 - 55074	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55014); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	31	rcoelho tags/candidates	55075 - 55089	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55075); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	32	rcoelho tags/candidates	55090 - 55099	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55090); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	33	rcoelho tags/candidates	55100 - 55517	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55100); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	34	rcoelho tags/candidates	55518 - 56853	antennas, cxdiag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55518); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	

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4.10b	35	rcoelho `tags/candidates`	56854 - 57141	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#55518); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	36	rcoelho `tags/candidates`	57142 - 57154	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#57142); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	37	rcoelho `tags/candidates`	57155 - 62404	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#57155); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	38	rcoelho `tags/candidates`	62405 - 63445	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#62405); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#54346)	
4.10b	39	rcoelho `tags/candidates`	63446 - 64841	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#62405); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	40	rcoelho `tags/candidates`	64842 - 65416	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#64842); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	41	rcoelho `tags/candidates`	65417 - 65563	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#65417); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	42	rcoelho `tags/candidates`	65564 - 68612	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#31000); msediag (#49850); nbi (#65564); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	43	rcoelho `tags/candidates`	68613 - 71325	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#65564); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	44	rcoelho `tags/candidates`	71326 - 71390	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71326); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	45	rcoelho `tags/candidates`	71391 - 71677	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71391); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	46	rcoelho `tags/candidates`	71678 - 71700	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71678); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	47	rcoelho `tags/candidates`	71701 - 71875	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71701); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	

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4.10b	48	rcoelho tags/candidates	71876 - 72139	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71876); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); wall (#63446)	
4.10b	49	rcoelho tags/candidates	72140 - 72585	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#31000); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71876); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#63446)	
4.10b	50	rcoelho tags/candidates	72586 - 78135	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#72586); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71876); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#63446)	
4.10b	51	rcoelho tags/candidates	78136 - 78298	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#71876); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#63446)	
4.10b	52	rcoelho tags/candidates	78299 - 79853	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#78299); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#63446)	
4.10b	53	rcoelho tags/candidates	79854 - 80287	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#56854); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#78299); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	54	rcoelho tags/candidates	80288 - 81184	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#78299); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	55	rcoelho tags/candidates	81185 - 81455	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#81185); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	56	rcoelho tags/candidates	81456 - 82534	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#81456); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	57	rcoelho tags/candidates	82535 - 84265	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#82535); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	58	rcoelho tags/candidates	84266 - 84312	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#84266); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	59	rcoelho tags/candidates	84313 - 88275	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#84313); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	60	rcoelho tags/candidates	88276 - 88415	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#88276); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	

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4.10b	61	rcoelho `tags/candidates`	88416 - 88589	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#78136); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#88416); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	62	rcoelho `tags/candidates`	88590 - 88706	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#88416); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	63	rcoelho `tags/candidates`	88707 - 91247	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#88707); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	64	rcoelho `tags/candidates`	91248 - 91307	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#91248); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	65	rcoelho `tags/candidates`	91308 - 91796	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#91308); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	66	rcoelho `tags/candidates`	91797 - 91870	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#91797); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	67	rcoelho `tags/candidates`	91871 - 91873	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#91871); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	
4.10b	68	rcoelho `tags/candidates`	91874 - 999999999	antennas, cxdiag, ecediag, interfdiag, ironmodel, magdiag, msediag, nbi, pfsystems, polardiag, toroidfield, tsdiag, wall	antennas (#88590); cxdiag (#37997); ecediag (#80288); interfdiag (#52888); ironmodel (#31000); magdiag (#68613); msediag (#49850); nbi (#91874); pfsystems (#31000); polardiag (#52888); toroidfield (#31000); tsdiag (#72140); wall (#79854)	

4.6.4 TS

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.07a	2	rcoelho `pfs`	28764 - 100000	interfdiag, ironmodel, limiter, magdiag, msediag, pfsystems, polardiag, toroidfield, vessel	missing r0 on toroidfield CPO	
4.07b	3	rcoelho `pfs`	28764 - 100000	interfdiag, ironmodel, limiter, magdiag, msediag, pfsystems, polardiag, toroidfield, vessel	missing r0 on toroidfield CPO	
4.08a	4	rcoelho `pfs`	34000 - 43445	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention	

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.08a	5	rcoelho `pfs`	43446 - 60000	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention	- 2D cross section of TS in RUN5 [130] - Top view of TS in RUN5 [131]
4.09a	4	rcoelho `tags/candidates`	34000 - 43445	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention	
4.09a	5	rcoelho `tags/candidates`	43446 - 43540	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention	
4.09a	6	rcoelho `tags/candidates`	28764 - 33999	antennas, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention	
4.09a	7	rcoelho `tags/candidates`	43541 - 48432	antennas, ecediag, interfdiag, ironmodel, limiter, magdiag, mse, pfsystems, polardiag, toroidfield, tsdiag, vessel	antennas with C2-C3 LH configuration; the line integrals have new angles convention; the R-settings of MSE changed	

4.6.5 AUG

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.07b	2	rcoelho `tags/candidates`	1 - 100000	limiter, magdiag, pfsystems, toroidfield, vessel	Flux loops are cast as 8 point structure to allow return leg. No interfdiag nro msediag since not fit for AUG.	
4.08a	3	rcoelho `tags/candidates`	1 - 100000	interfdiag, limiter, magdiag, msediag, pfsystems, toroidfield, vessel	Interfdiag and msediag now integrated	
4.08b	4	rcoelho `tags/candidates`	1 - 100000	interfdiag, limiter, magdiag, msediag, pfsystems, toroidfield, vessel	secured + missing data access enabled; pfcoils data mapping not fully compliant (algebra on signals)	- 2D cross section of AUG in RUN4 [132] - Top view of AUG in RUN4 [133]
4.09a	5	rcoelho `tags/candidates`	1 - 100000	interfdiag, limiter, magdiag, msediag, nbi, pfsystems, toroidfield, vessel	secured + missing data access enabled; pfcoils data mapping not fully compliant (algebra on signals); NBI was integrated (no details on "beamlets"); NBI data mapping missing.	- 2D cross section of AUG in RUN5 [134] - Top view of AUG in RUN5 [135]
4.10a	6	rcoelho `tags/candidates`	8646 - 9400	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	secured + missing data access enabled on all RUN numbers; pfcoils data mapping features algebra on signals on all RUN numbers; NBI has full detail on "beamlets" and data mapping exist. Start shot at new wall setup, end shot wall upper limit.	- 2D cross section of AUG in RUN6 [136] - Top view of AUG in RUN6 [137]
4.10a	7	rcoelho `tags/candidates`	9401 - 11319	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN7 [138] - Top view of AUG in RUN7 [139]

[130] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_TS_RUN5.eps
[131] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_TS_RUN5_top.eps
[132] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN4.eps
[133] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN4_top.eps
[134] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN5.eps
[135] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN5_top.eps
[136] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN6.eps
[137] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN6_top.eps
[138] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN7.eps
[139] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN7_top.eps

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10a	8	rcoelho `tags/candidates`	11320 - 12750	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN8 [140] - Top view of AUG in RUN8 [141]
4.10a	9	rcoelho `tags/candidates`	12751 - 13230	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN9 [142] - Top view of AUG in RUN9 [143]
4.10a	10	rcoelho `tags/candidates`	13231 - 14050	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN10 [144] - Top view of AUG in RUN10 [145]
4.10a	11	rcoelho `tags/candidates`	14051 - 14600	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit and more sensors in magdiag.	- 2D cross section of AUG in RUN11 [146] - Top view of AUG in RUN11 [147]
4.10a	12	rcoelho `tags/candidates`	14601 - 16309	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN12 [148] - Top view of AUG in RUN12 [149]
4.10a	13	rcoelho `tags/candidates`	16310 - 18203	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN13 [150] - Top view of AUG in RUN13 [151]
4.10a	14	rcoelho `tags/candidates`	18204 - 18276	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + tsdiag upper limit.	- 2D cross section of AUG in RUN14 [152] - Top view of AUG in RUN14 [153]
4.10a	15	rcoelho `tags/candidates`	18277 - 19550	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New tsdiag + wall upper limit.	- 2D cross section of AUG in RUN15 [154] - Top view of AUG in RUN15 [155]
4.10a	16	rcoelho `tags/candidates`	19551 - 21484	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + wall upper limit.	- 2D cross section of AUG in RUN16 [156] - Top view of AUG in RUN16 [157]
4.10a	17	rcoelho `tags/candidates`	21485 - 21741	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + cxdiag upper limit.	- 2D cross section of AUG in RUN17 [158] - Top view of AUG in RUN17 [159]

[140] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN8.eps
[141] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN8_top.eps
[142] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN9.eps
[143] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN9_top.eps
[144] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN10.eps
[145] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN10_top.eps
[146] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN11.eps
[147] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN11_top.eps
[148] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN12.eps
[149] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN12_top.eps
[150] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN13.eps
[151] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN13_top.eps
[152] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN14.eps
[153] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN14_top.eps
[154] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN15.eps
[155] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN15_top.eps
[156] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN16.eps
[157] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN16_top.eps
[158] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN17.eps
[159] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN17_top.eps

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10a	18	rcoelho `tags/candidates`	21742 - 24202	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + ecediag upper limit.	- 2D cross section of AUG in RUN18 [160] - Top view of AUG in RUN18 [161]
4.10a	19	rcoelho `tags/candidates`	24203 - 24999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag + cxdiag upper limit.	- 2D cross section of AUG in RUN19 [162] - Top view of AUG in RUN19 [163]
4.10a	20	rcoelho `tags/candidates`	25000 - 25890	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + wall upper limit.	- 2D cross section of AUG in RUN20 [164] - Top view of AUG in RUN20 [165]
4.10a	21	rcoelho `tags/candidates`	25891 - 25999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + new magdiag (same set size) + ecediag/tsdiag upper limit.	- 2D cross section of AUG in RUN21 [166] - Top view of AUG in RUN21 [167]
4.10a	22	rcoelho `tags/candidates`	26000 - 26159	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag/tsdiag + cxdiag upper limit.	- 2D cross section of AUG in RUN22 [168] - Top view of AUG in RUN22 [169]
4.10a	23	rcoelho `tags/candidates`	26160 - 26919	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + ecediag upper limit.	- 2D cross section of AUG in RUN23 [170] - Top view of AUG in RUN23 [171]
4.10a	24	rcoelho `tags/candidates`	26920 - 30150	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag + ecediag upper limit.	- 2D cross section of AUG in RUN24 [172] - Top view of AUG in RUN24 [173]
4.10a	25	rcoelho `tags/candidates`	30151 - 30715	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag.	- 2D cross section of AUG in RUN25 [174] - Top view of AUG in RUN25 [175]
4.10a	26	rcoelho `tags/candidates`	30716 - 999999999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New equilibrium.	- 2D cross section of AUG in RUN25 [176] - Top view of AUG in RUN25 [177]
4.10b	6	rcoelho `tags/candidates`	8646 - 9400	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	secured + missing data access enabled on all RUN numbers; pfcoils data mapping features algebra on signals on all RUN numbers; NBI has full detail on ”beamlets” and data mapping exist. Start shot at new wall setup, end shot wall upper limit.	- 2D cross section of AUG in RUN6 [178] - Top view of AUG in RUN6 [179]

[160] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN18.eps
[161] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN18_top.eps
[162] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN19.eps
[163] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN19_top.eps
[164] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN20.eps
[165] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN20_top.eps
[166] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN21.eps
[167] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN21_top.eps
[168] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN22.eps
[169] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN22_top.eps
[170] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN23.eps
[171] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN23_top.eps
[172] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN24.eps
[173] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN24_top.eps
[174] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25.eps
[175] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25_top.eps
[176] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25.eps
[177] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25_top.eps
[178] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN6.eps
[179] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN6_top.eps

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10b	7	rcoelho `tags/candidates`	9401 - 11319	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN7 [180] - Top view of AUG in RUN7 [181]
4.10b	8	rcoelho `tags/candidates`	11320 - 12750	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN8 [182] - Top view of AUG in RUN8 [183]
4.10b	9	rcoelho `tags/candidates`	12751 - 13230	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN9 [184] - Top view of AUG in RUN9 [185]
4.10b	10	rcoelho `tags/candidates`	13231 - 14050	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN10 [186] - Top view of AUG in RUN10 [187]
4.10b	11	rcoelho `tags/candidates`	14051 - 14600	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit and more sensors in magdiag.	- 2D cross section of AUG in RUN11 [188] - Top view of AUG in RUN11 [189]
4.10b	12	rcoelho `tags/candidates`	14601 - 16309	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN12 [190] - Top view of AUG in RUN12 [191]
4.10b	13	rcoelho `tags/candidates`	16310 - 18203	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + wall upper limit.	- 2D cross section of AUG in RUN13 [192] - Top view of AUG in RUN13 [193]
4.10b	14	rcoelho `tags/candidates`	18204 - 18276	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall setup + tsdiag upper limit.	- 2D cross section of AUG in RUN14 [194] - Top view of AUG in RUN14 [195]
4.10b	15	rcoelho `tags/candidates`	18277 - 19550	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New tsdiag + wall upper limit.	- 2D cross section of AUG in RUN15 [196] - Top view of AUG in RUN15 [197]
4.10b	16	rcoelho `tags/candidates`	19551 - 21484	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + wall upper limit.	- 2D cross section of AUG in RUN16 [198] - Top view of AUG in RUN16 [199]

[180] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN7.eps
[181] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN7_top.eps
[182] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN8.eps
[183] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN8_top.eps
[184] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN9.eps
[185] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN9_top.eps
[186] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN10.eps
[187] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN10_top.eps
[188] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN11.eps
[189] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN11_top.eps
[190] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN12.eps
[191] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN12_top.eps
[192] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN13.eps
[193] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN13_top.eps
[194] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN14.eps
[195] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN14_top.eps
[196] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN15.eps
[197] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN15_top.eps
[198] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN16.eps
[199] https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN16_top.eps

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.10b	17	rcoelho `tags/candidates`	21485 - 21741	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + cxdiag upper limit.	- 2D cross section of AUG in RUN17 [200] - Top view of AUG in RUN17 [201]
4.10b	18	rcoelho `tags/candidates`	21742 - 24202	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + ecediag upper limit.	- 2D cross section of AUG in RUN18 [202] - Top view of AUG in RUN18 [203]
4.10b	19	rcoelho `tags/candidates`	24203 - 24999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag + cxdiag upper limit.	- 2D cross section of AUG in RUN19 [204] - Top view of AUG in RUN19 [205]
4.10b	20	rcoelho `tags/candidates`	25000 - 25890	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + wall upper limit.	- 2D cross section of AUG in RUN20 [206] - Top view of AUG in RUN20 [207]
4.10b	21	rcoelho `tags/candidates`	25891 - 25999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New wall + new magdiag (same set size) + ecediag/tsdiag upper limit.	- 2D cross section of AUG in RUN21 [208] - Top view of AUG in RUN21 [209]
4.10b	22	rcoelho `tags/candidates`	26000 - 26159	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag/tsdiag + cxdiag upper limit.	- 2D cross section of AUG in RUN22 [210] - Top view of AUG in RUN22 [211]
4.10b	23	rcoelho `tags/candidates`	26160 - 26919	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New cxdiag + ecediag upper limit.	- 2D cross section of AUG in RUN23 [212] - Top view of AUG in RUN23 [213]
4.10b	24	rcoelho `tags/candidates`	26920 - 30150	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag + ecediag upper limit.	- 2D cross section of AUG in RUN24 [214] - Top view of AUG in RUN24 [215]
4.10b	25	rcoelho `tags/candidates`	30151 - 30715	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New ecediag.	- 2D cross section of AUG in RUN25 [216] - Top view of AUG in RUN25 [217]
4.10b	26	rcoelho `tags/candidates`	30716 - 999999999	interfdiag, magdiag, msediag, nbi, pfsystems, toroidfield, wall, (cxdiag,ecediag,tsdiag only on mapping files)	New equilibrium.	- 2D cross section of AUG in RUN25 [218] - Top view of AUG in RUN25 [219]

4.6.6 TCV

[200] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN17.eps`
[201] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN17_top.eps`
[202] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN18.eps`
[203] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN18_top.eps`
[204] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN19.eps`
[205] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN19_top.eps`
[206] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN20.eps`
[207] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN20_top.eps`
[208] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN21.eps`
[209] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN21_top.eps`
[210] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN22.eps`
[211] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN22_top.eps`
[212] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN23.eps`
[213] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN23_top.eps`
[214] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN24.eps`
[215] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN24_top.eps`
[216] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25.eps`
[217] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25_top.eps`
[218] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25.eps`
[219] `https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_AUG_RUN25_top.eps`

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.09a	1	rcoelho `tags/candidates`	13550 - 44406	interfdiag, limiter, magdiag, pfsystems, toroidfield, vessel	secured + missing data access enabled; complete pfsystems	- 2D cross section of TCV in RUN1 [220] - Top view of TCV in RUN1 [221]

4.6.7 FTU

Data version	Run	User Id / Path	Pulse range	CPOs	Comments	Illustrations
4.07b	1	rcoelho `tags/candidates`	32000 - 34000	interfdiag, limiter, magdiag, pfsystems, toroidfield, vessel	complete pfsystems (no passive though).	
4.08a	2	rcoelho `tags/candidates`	32000 - 34000	interfdiag, limiter, magdiag, pfsystems, toroidfield, vessel		
4.08b	3	rcoelho `tags/candidates`	32000 - 34000	interfdiag, limiter, magdiag, pfsystems, toroidfield, vessel		- 2D cross section of FTU in RUN3 [222] - Top view of FTU in RUN3 [223]

For more updated information on the MD and DM activity please check the md_and_dm project [224] in Gforge (29)

last update: 2019-01-31 by g2dpc

4.7 UalGetCpoBundle Workflow

Contact: Thomas Johnson, `tjohn@kth.se` .

Modelling real plasmas requires input from both the relevant experimental database and information about the machine hardware and settings. The purpose of the UalGetCpoBundle is to provide a workflow that reads both input CPOs related to the plasma state and the once that are related to the hardware. The workflow then bundles these CPOs into the CPOS-branch of the EU-ITM bundle (12.3.6). The target applications of this workflow is as an initialisation actor in workflows like the HCD workflow and the ETS.

The actor is still under development and need to be tested. So far only the wall, the nbi and the antennas CPOs are read from the machine description database, but more CPOs will be added (e.g. pfsystems and ironmodel). Note that the UalGetCpoBundle does not fill in the discharge related hardware settings. These have to be set externally with actors like the addECant, addICant and nbifiller.

4.7.1 Input to UalGetCpoBundle Actors

The UalGetCpoBundle actor has a number of input ports, through which all input to the actor are passed. The list of input ports reads:

Port name	Datatype	Description
`UserName`	String	Name of the user whos UAL database we shall read from
`MachineName`	String	Name of the machine (tokamak) used when accessing the UAL database
`ShotNumber`	Integer	Shot number to be used when reading from the UAL database
`InputRunNumber`	Integer	Run number to be used when reading the main CPOs from the UAL database
`TemporaryRunNumber_MainCpos`	Integer	Run number used when the `UALInit` temporarily store the main CPOs during a run. Also referred to as `runwork` .
`TemporaryRunNumber_MachineDescriptions`	Integer	Run number used when the `UALInit` temporarily store the Machine Description CPOs during a run. Also referred to as `runwork` .

220 https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_TCV_RUN1.eps
221 https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_TCV_RUN1_top.eps
222 https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_FTU_RUN3.eps
223 https://www.efda-itm.eu/ITM/graphics/edrg/public/edrg_Machinedescription_FTU_RUN3_top.eps
224 https://gforge6.eufus.eu/project/md_and_dm/

Port name	Datatype	Description
`SelectMachineDescriptionCpos`	Bundle	Bundle of three boolean fields: `{use_MD_wall=True/False, use_MD_nbi=True/False, use_MD_antennas=True/False}` The three field are used to select if the wall, the nbi and the antennas CPOs should be taken from the Machine Description Database or from the `shot=ShotNumber` and `run=InputRunNumber` .

4.7.2 Design of the UalGetCpoBundle-Workflow

The `UalGetCpoBundle-Workflow` has been developed purely for the testing and development of the `UalGetCpoBundle` actor. This workflow (1) provides an interface for prescribing the input to be used by the `UalGetCpoBundle` actor and (2) it prints the output from the same actor.

To fill the input data double click on the composite actor at the top-level of the workflow. A box will then pop up where you can fill in each of the input parameters described above, as illustrated in figure 1. These parameters are then fed into the actor as illustrated in figure 2.

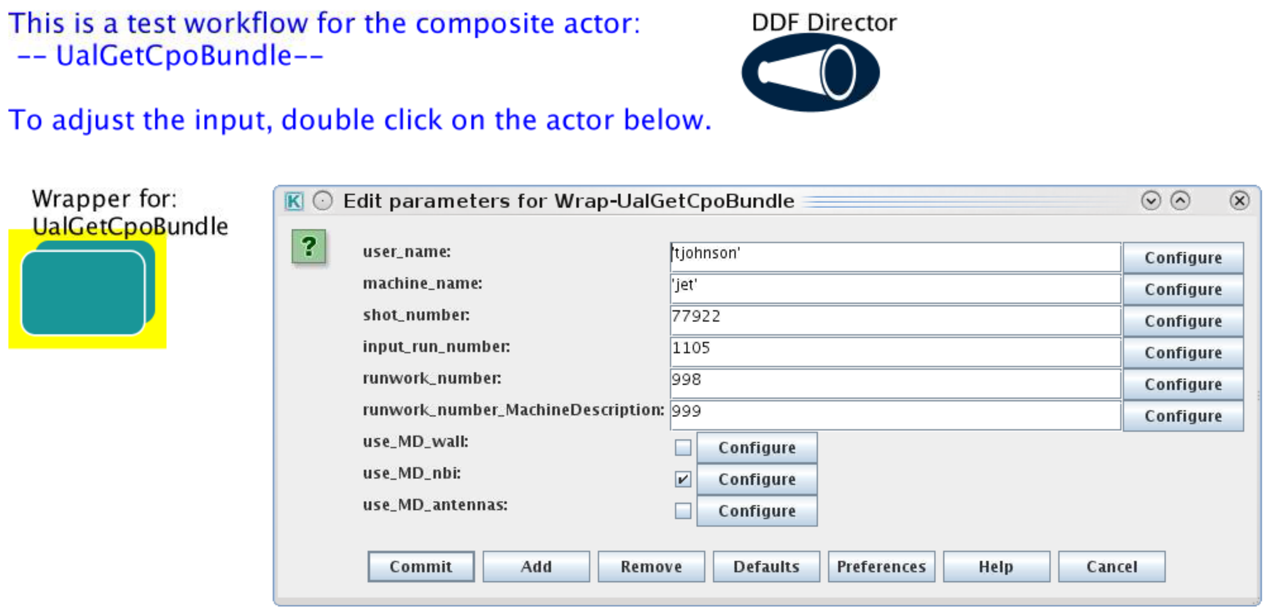

Figure 1. The top level of the `UalGetCpoBundle-Workflow` provides an interface for describing the input to the `UalGetCpoBundle` actor.

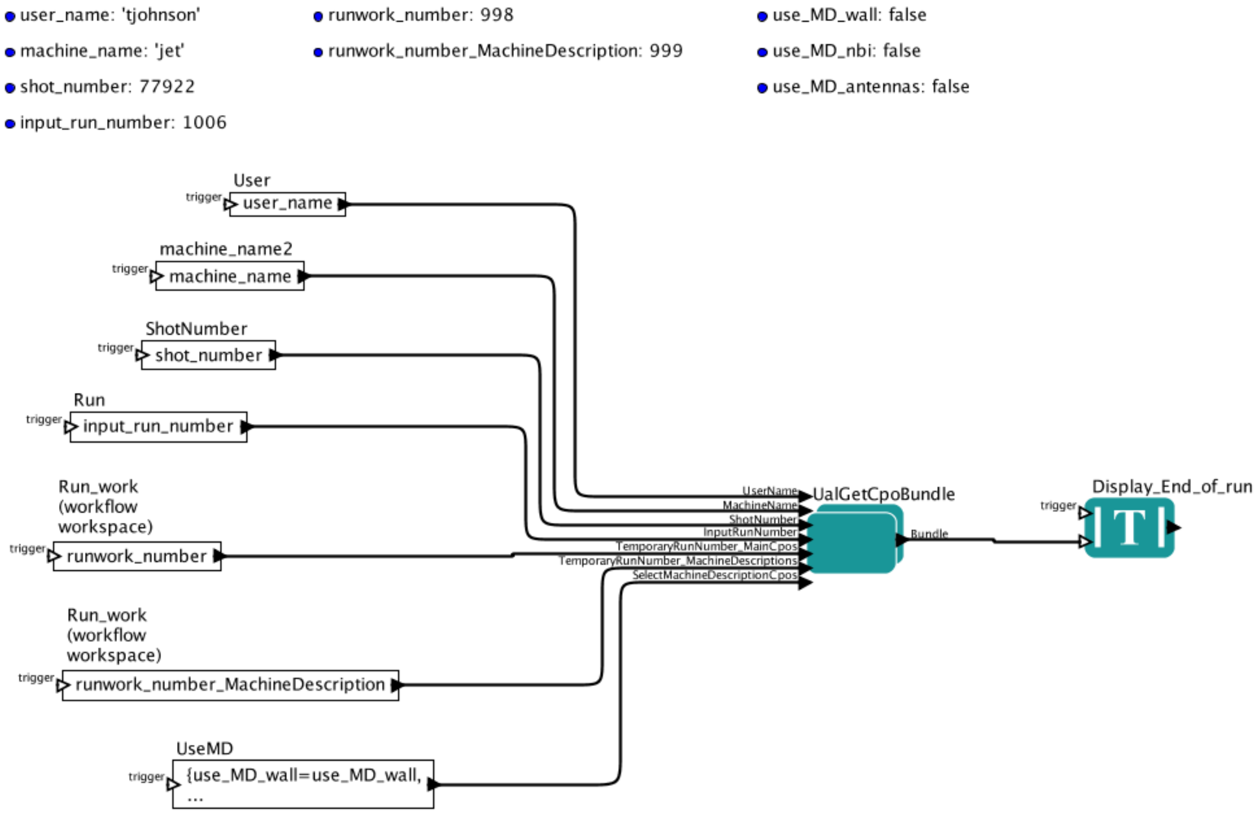

Figure 2. Calling the UalGetCpoBundle actor in the `UalGetCpoBundle-Workflow` .

4.7.3 Design of the UalGetCpoBundle Actor

The `UalGetCpoBundle` actor, outlined in the figure 3 below, consists of four composite actors and some logic to connect these.

- The first of these actors is `Validate_Input` (see figure 4), which checks the three input run numbers to make sure they are all different.
- The second actor reads all the main CPOs from the input run number `InputRunNumber` and is called `UAL_read_main_CPOs` (see figure 5).

After the third actor there is a switch to determine which Machine Description data is requested and if we need any of the machine description CPO. If we do not, the output from `UAL_read_main_CPOs` will be sent to the output of the `UalGetCpoBundle` actor, othervise the third actor `UAL_read_machine_description_CPOs` is called.

- This third actor (see figure 6 and 7) first idenfities the relevant triplet of `UserId/Shot/Run` to be used when reading data from the machine description database. This proceedure uses an xml-document from the `md_and_dm` -repository that related e.g. JET shot 77922 with a certain set `UserId/Shot/Run` . Once this triplet is know the UALInit is called and its output is finally bundled.
- The forth and final composite actor is `Insert_Machine_Descriptions_to_CPO_bundle` , which merges the Machine Description CPOs according to the specifications in the input port `SelectMachineDescriptionCpos` .

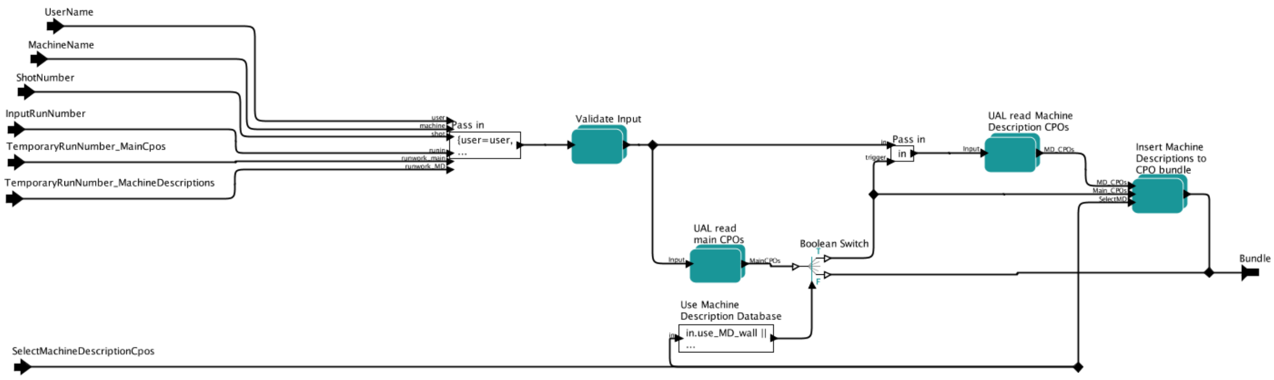

Figure 3. Outline of the `UalGetCpoBundle` actor.

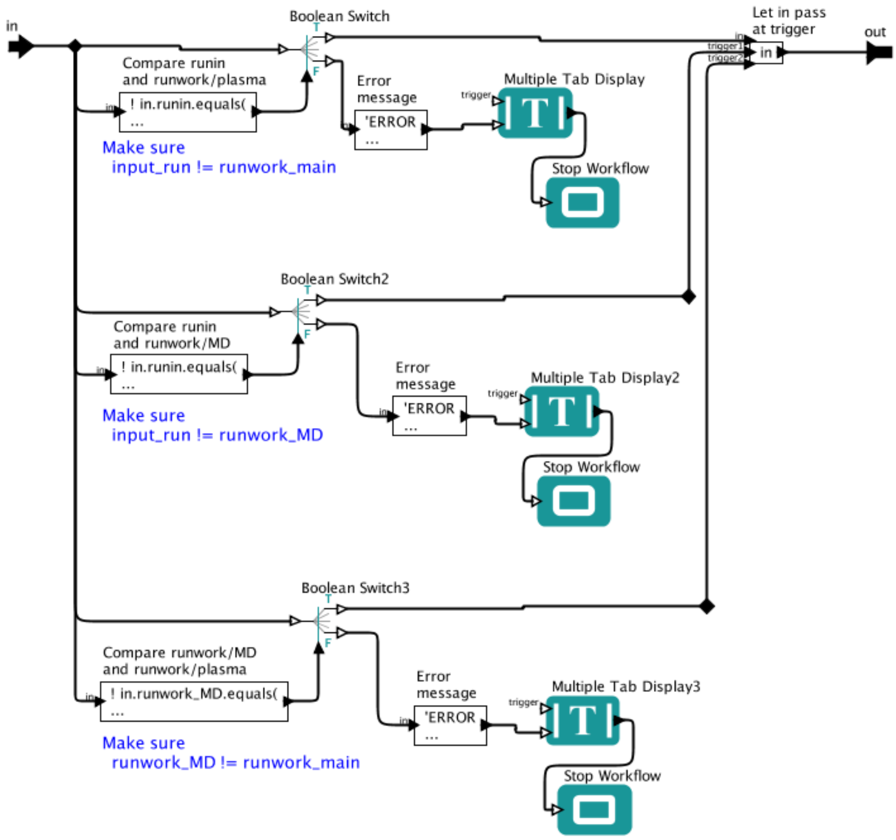

Figure 4. The `Validate_Input` composite actor, part of `UalGetCpoBundle`.

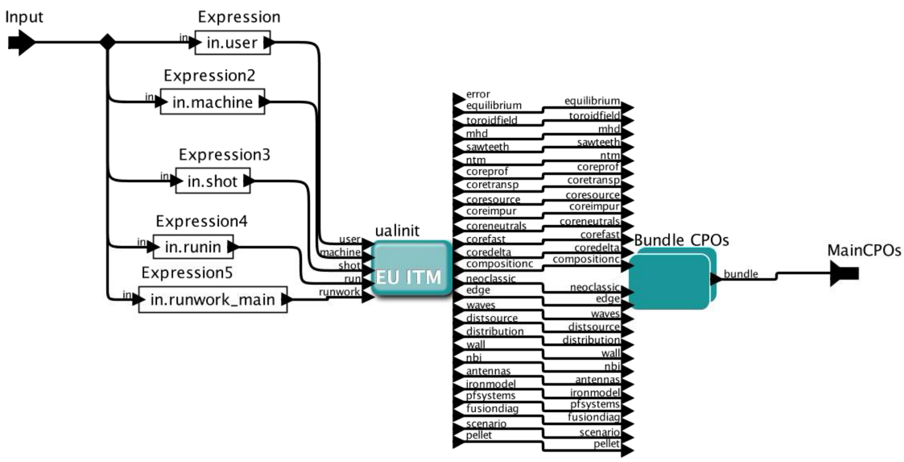

Figure 5. The `UAL_read_main_CPOs` composite actor, part of `UalGetCpoBundle`.

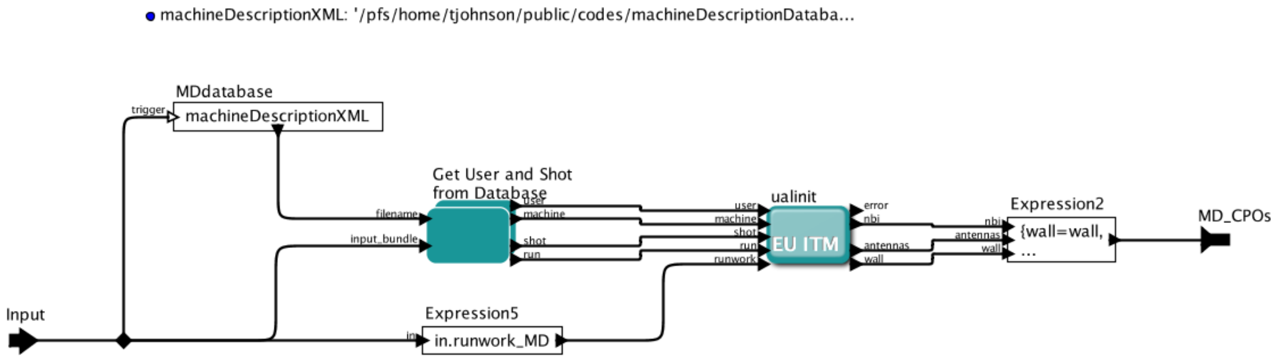

Figure 6. The `UAL_read_machine_description_CPOs` composite actor, part of `UalGetCpoBundle` .

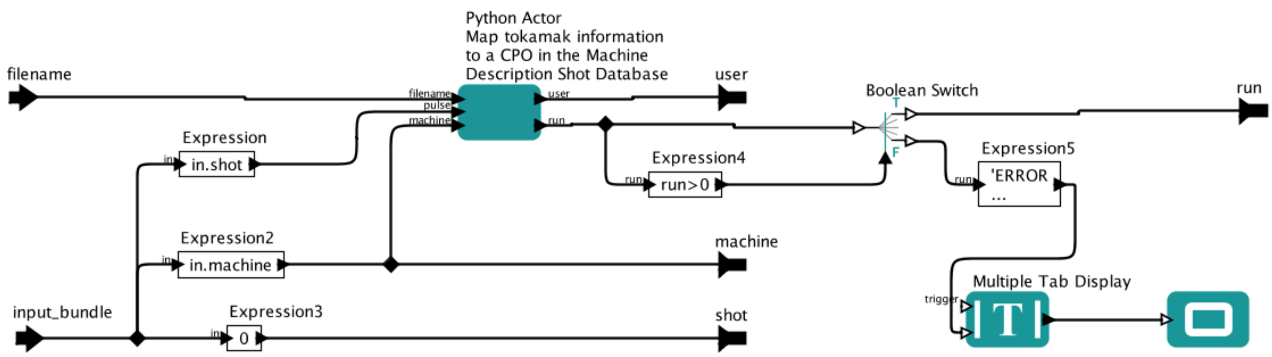

Figure 7. The `Get_User_and_Shot_from_Database` composite actor, part of `UalGetCpoBundle/UAL_read_machine_descript`
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4.8 Private EDRG pages

To access the private EDRG pages [225], an EDRG password is needed.

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last update: 2015-04-21 by tjohnson

5 ISIP

5.1 Scope

ISIP (Infrastructure and Software Integration Project) is in charge of developing and maintaining the ITM-TF simulation infrastructure.

5.2 Project Timeline

The ISIP Timeline can be found here [226].

5.3 Contacts

Project Leader : frederic.imbeaux@cea.fr (CEA)

Deputies : gabriele.manduchi@igi.cnr.it (Consorzio RFX), hmk@ipp.mpg.de (IPP Garching)

5.4 News

- 22/03/2012: Data version 4.10a has been released
- 16/03/2012: Data version 4.09b has been released

[225] `https://www.efda-itm.eu/EDRG/html/index.html`
[226] `https://www.efda-itm.eu/ITM/imports/isip/public/isip_timeline.pdf`

- 20/05/2011: Data version 4.09a has been released
- 20/10/2010: ISE has been updated for 4.08a and 4.08b and is now fully usable
- 23/09/2010: Data version 4.08b has been released

5.5 User Support

Questions/problems and Feature Requests related to the ISIP tools can be posted to the General Support [227]

5.6 Data Structure

In a workflow, physics modules exchange physics data in the form of standardised blocks of information : the Consistent Physical Objects (CPOs). The list of CPOs as well as their inner structure defines the ITM Data Structure. All physics modules should use these standardised interfaces for I/O.

An introduction to the ITM data structure is given in the presentation Data Structures in Practice [228] by Frédéric Imbeaux.

5.6.1 Data Structure Releases (users)

The whole ITM platform is released by versions. To each version corresponds a definition of the Data Structure which can be found below. See the History [229] for the history / description of all releases.

Data structure 4.10b.10
Released as a test version Data structure 4.10b.10 (Browse) [230]

Type definitions for Fortran can be found here Fortran [231]

List of changes:
AMNS CPO: a few nodes have become vectors instead of scalar
ANTENNAS CPO: two nodes have been added
COREPROF CPO: a few nodes have been added
NEOCLASSIC CPO: a few nodes have been added
EQUILIBRIUM CPO: clarified definition of geom_axis
COREDELTA CPO: correction of the impurity nodes
DISTRIBUTION CPO: a few nodes have been added and a wrong type definition has been corrected

Data structure 4.10b.8
Production release for 4.10b, dated August 2014
Data structure 4.10b.8 (Browse) [232](Download) [233].

Type definitions for Fortran can be found here Fortran [234]

Data structure 4.10b.3
TEST release date: 12 May 2014, this is the first version of datastructure 4.10b released for TESTING purposes. The default production version is still 4.10a.3 (see below)
Data structure 4.10b.3 (Browse) [235](Download) [236].

[227] https://gforge6.eufus.eu/project/generalsupport
[228] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[229] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/isip_Phase4Versions.pdf
[230] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.10/Phase4TOP.html
[231] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.10/euitm_schemas.f90
[232] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.8/Phase4top.html
[233] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.8/Phase4.10b.8_HTML.zip
[234] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.8/euitm_schemas.f90
[235] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.3/Phase4TOP.html
[236] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.3/Phase4.10b.3_HTML.tar

Data structure 4.10a.3
release date: February 2013, this is the slightly updated 4.10a version under exploitation on the new Gateway in Garching
Data structure 4.10a.3 (Browse) [237](Download) [238].

Data structure 4.10a
release date: 15/05/2012, significant updates of the datastructure + full integration of memory caching in Kepler/UAL. Last datastructure release on the Portici Gateway
Data structure 4.10a (Browse) [239](Download) [240].

Type definitions:

- Fortran [241]
- C++ [242]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.10a/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.10a/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.10a/matlabinterface`

Data structure 4.09b
release date: 16/03/2012, this is a transition version enabling UAL memory cache with the same datastructure as 4.09a
4.09b: This version has the same datastructure as 4.09a and features in-memory transfer for the UAL (available only for the default JNI execution mode). In-memory data transfer implied changes in UALinit and UALcollector actors.
Full Kepler release can be found at: $SWITMDIR/kepler/4.09b
If you prefer to start from your Kepler 4.09a and only update the UALinit and UALcollector actors, do this by running the script: $SWITMDIR/kepler/4.09b/script.sh (do this after ITMv1 specifying the location of your original 4.09a Kepler). Note that this transformation is not backward compatible.

Data structure 4.09a
release date: 20/05/2011
Data structure 4.09a (Browse) [243](Download) [244].

Type definitions:

- Fortran [245]
- C++ [246]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.09a/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.09a/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.09a/matlabinterface`

[237] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a.3/Phase4top.html
[238] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a.3/Phase4.10a.3_HTML.zip
[239] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/Phase4top.html
[240] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/Phase4.10a_HTML.zip
[241] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/euitm_schemas.f90
[242] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/UALClasses.h
[243] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/Phase4top.html
[244] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/Phase4.09a_HTML.zip
[245] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/euitm_schemas.f90
[246] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/UALClasses.h

Data structure 4.08b
release date: 23/09/2010
Data structure 4.08b (Browse) [247](Download) [248].

Type definitions:

- Fortran [249]
- C++ [250]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.08b/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.08b/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.08b/matlabinterface`

Data structure 4.08a
release date: 02/04/2010
Data structure 4.08a (Browse) [251](Download) [252].

Type definitions:

- Fortran [253]
- C++ [254]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.08a/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.08a/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.08a/matlabinterface`

Data structure 4.07c
release date: 02/04/2010

Data structure 4.07c is exactly the same as 4.07b but this tag corresponds to a new release of Kepler and associated tools.

Data structure 4.07b
release date: 14/09/2009
Data structure 4.07b (Browse) [255](Download) [256].

Type definitions:

- Fortran [257]
- C++ [258]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.07b/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.07b/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.07b/matlabinterface`

[247] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/Phase4top.html
[248] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/Phase4.08b_HTML.zip
[249] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/euitm_schemas.f90
[250] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/UALClasses.h
[251] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/Phase4top.html
[252] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/Phase4.08a_HTML.zip
[253] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/euitm_schemas.f90
[254] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/UALClasses.h
[255] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/Phase4top.html
[256] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/Phase4.07b_HTML.zip
[257] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/euitm_schemas.f90
[258] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/UALClasses.h

Data structure 4.07a
release date: 04/05/2009
Data structure 4.07a (Browse) [259](Download) [260].

Contains many revisions to IMP3 data structure, new CPOs (29) from IMP2 and IMP5.

Type definitions:

- Fortran [261]
- C++ [262]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.07a/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.07a/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.07a/matlabinterface`

Data structure 4.06d
release date: 19/09/2008
Data structure 4.06d (Browse) [263](Download) [264].

Contains the core transport + equilibrium data structure.

Type definitions:

- Fortran [265]
- C++ [266]
- Java: The class definitions for Java can be found in `$SWITMDIR/ual/4.06d/javainterface/ualmemory/javainterfac`
- Python: The class definitions for Python can be found in `$SWITMDIR/ual/4.06d/pythoninterface`
- Matlab: The class definitions for Matlab can be found in `$SWITMDIR/ual/4.06d/matlabinterface`

5.6.2 Data structure XML schemas (experts)

The ITM datastructure is coded as xml schemas. This unique source is used to derive all ITM applications related to CPOs : UAL, CPO documentation, ... The data structure XML schemas are stored in a subversion repository in /afs/efda-itm.eu/isip/project/portal/gforge/storage/svnroot/datastructure.

To export version 4.08b from the repository, storing it in subdirectory *xml* , do

```
svn export https://gforge6.eufus.eu/svn/datastructure/tags/4.08b xml
```

To check out a subversion working copy of the entire repository, storing it in subdirectory *datastructure* , do

```
svn co https://gforge6.eufus.eu/svn/datastructure
```

The instructions for writing the ITM datastructure XML schemas can be found here. [267]

last update: 2019-01-31 by g2dpc

[259] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07a/Phase4top.html
[260] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07a/Phase4.07a_HTML.zip
[261] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07a/euitm_schemas.f90
[262] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07a/UALClasses.h
[263] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/Phase4top.html
[264] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/Phase4.06d_HTML.zip
[265] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/euitm_schemas.f90
[266] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/UALClasses.h
[267] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/isip_InstructionsSchemas.pdf

5.7 Databases

ITM data entries are defined by the following information : (user, machine, shot, run). "user" is either "public" (public ITM database) or any Gateway (29) username, allowing the creation of private ITM databases.

In order to run a KEPLER workflow, you must first create your private database(s). A private database is created for a given machine (tokamak name) and data structure version, by the following command:

```
$ITMSCRIPTDIR/create_user_itm_dir TokamakName \
 DataVersion
```

Example (creates a tree for tokamak name test, allowed for testing purposes):

```
$ITMSCRIPTDIR/create_user_itm_dir test 4.08a
```

The database is created under ~my_username/public/itmdb/itm_trees. Since it is located in your public directory, all Gateway users can read from it.

Standard tokamak names are : asdex_upgrade, jet, mast, tore_supra, ... Nonetheless, any arbitrary machine name is allowed by the system for testing purposes (e.g. test). It is however strongly recommended to use the standard machine names when using real experimental data.

Before using KEPLER or the UAL (29) , you must specify on which database you wish to work, using the following command :

```
source $ITMSCRIPTDIR/set_itm_data_env public|user TokamakName DataVersion
```

Example (set the environment variables to work to the previously created directory):

```
source $ITMSCRIPTDIR/set_itm_data_env my_username test 4.08a
```

Note that with this command, you can read any ITM database on the Gateway, including the public database (replace my_username by "public").

The public database is located at /pfs/itmdb/itm_trees/public/. Its content is summarised in ITM Public Database [268], which contains also the location of the various files, the list of standard machine names ...

For the moment, the ITM software (KEPLER, UAL) are able to work only on one database at a time. Reading is allowed from all databases (by using the set_itm_data_env command above). However, if you wish to write also some results during the workflow, you can write only to your private database. Therefore, if you wish to use data entries from other users in your workflow, you need first to copy them in your own directory.

For example, to copy the test example from the public database (user=public, machine=test, shot=1, run=1) to your directory, type:

```
cp /pfs/itmdb/itm_trees/public/test/4.08a/mdsplus/0/euitm_10001.* \
   ~my_username/public/itmdb/itm_trees/test/4.08a/mdsplus/0/.
```

This data entry can then be used as (user=my_username, machine=test, shot=1, run=1). It is not recommended to change the shot or run number when copying data entries like this. More flexible tools for working on multiple databases simultaneously will be provided in the near future.

Machine descriptions (29) are stored in shot 0 of each tokamak. Different versions (valid e.g. for different shot ranges) can be stored, using different run numbers. To copy the Tore Supra machine description (run 1) to your local folder, type (NB you must first create your private tore_supra 4.08a database):

```
cp /pfs/itmdb/itm_trees/public/tore_supra/4.08a/mdsplus/0/euitm_001.* \
   ~my_username/public/itmdb/itm_trees/tore_supra/4.08a/mdsplus/0/.
```

[268] https://www.efda-itm.eu/ITM/imports/isip/public/isip_PublicContent.pdf

To copy the Tore Supra experimental data set for shot 39736, run 1, type:

```
cp /pfs/itmdb/itm_trees/public/tore_supra/4.08a/mdsplus/0/euitm_397360001.* \
   ~my_username/public/itmdb/itm_trees/tore_supra/4.08a/mdsplus/0/.
```

Note for advanced users : an ITM data entry consists in three file, euitm_SSSSSSRRRR.* where SSSSSS is the shot number (truncated, e.g. shot=1 is SSSSSS=1) and RRRR the run number (exception : if shot = 0, SSSSSSRRRR = (R)RRR, e.g. shot 0 run 1 is euitm_001.*). In the example above, it is assumed that one is using the default storage method MDS+ (otherwise, for HDF5, replace in the path the "mdsplus" folder name by "hdf5"), and that the run number is below 9999 (otherwise, replace the "0" folder name by "1" for run numbers between 10000 and 19999, ...).

5.7.1 exp2ITM

Experimental Data Overview [269]

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last update: 2013-09-12 by dpc

5.8 Universal Access Layer (UAL)

5.8.1 Introduction

The UAL (Universal Access Layer) (29) is a multi-language library that allows exchanging Consistent Physical Objects (CPOs) between various modules, and to write to an ITM database. The documentation here is provided for rather experienced users who want to practice the UAL in their test programs. Regular KEPLER (29) users do not need to know anything about the UAL. KEPLER manages transparently the UAL calls, which are embedded in the physics code wrappers. **No UAL calls should be made inside physics modules.**

Prior using the UAL, the environment must be configured. It is recommended to use the **ITMv1** script for this, which simultanesouly sets i) the database environment (to the private database of the user) ii) the UAL libraries environment iii) the Kepler environment.

```
        source $ITMSCRIPTDIR/ITMv1 KEPLERFOLDER
        MACHINENAME DATAVERSION
```

e.g.:

```
        source $ITMSCRIPTDIR/ITMv1 kepler tore_supra 4.08a
```

This scripts does not prevent you from using databases from other users or the public one, you must then use the UAL function **euitm_open_env** in your program to do so.

The ITMv1 script uses the two following scripts: to set the database environment variables (mandatory prior UAL usage), use:

```
source $ITMSCRIPTDIR/set_itm_data_env USERNAME
 MACHINENAME DATAVERSION
```

e.g.:

```
source $ITMSCRIPTDIR/set_itm_data_env myname jet 4.08a
```

Then to set the path to the right UAL libraries, use:

[269] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ExperimentalDataITM_v3.pdf

```
source $ITMSCRIPTDIR/set_itm_env DATAVERSION
```

e.g.:

```
source $ITMSCRIPTDIR/set_itm_env 4.08a
```

UAL libraries are installed in `/afs/efda-itm.eu/isip/project/switm/ual` .

The source code is stored in a subversion repository in /afs/edfa-itm.eu/isip/project/portal/gforge/storage/svnroot/ual. To check out a subversion working copy of the repository, storing it in subdirectory *ual* , do

```
svn co https://gforge6.eufus.eu/svn/ual
```

5.8.2 UAL User Guide

Click on the following link for the UAL User Guide [270]

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5.9 FC2K

FC2K (29) is a tool for wrapping a Fortran or C++ source code into a Kepler (29) actor. Before using it, your physics code should be ITM-compliant (i.e. use CPOs (29) as input/output).

After running the **ITMv1 script** (to properly set up the environment variables), FC2K can be run simply by typing fc2k in the Linux command line.

fc2k was developed by ISIP in Java/Pytho. The program source is stored in the Gforge (29) subversion repository `fc2k` . To check out a subversion working copy of the repository, storing it in subdirectory *fc2k* , do

```
svn co https://gforge6.eufus.eu/svn/fc2k
```

Executables etc are in `$SWITMDIR/ihm/fc2k/` .

There are a few tools for managing actors, in `$ITMSCRIPTDIR/` (put it in your $PATH):

- rmactor (13.12): remove an actor from your Kepler version ($KEPLER).
- extract_actor (13.10): export an actor from $KEPLER.
- import_actor (13.11): import an actor into $KEPLER. Then update your Kepler version:

  ```
  cd $KEPLER
  ant buildkarlib
  ```

5.9.1 How to turn a C++ code into a Kepler actor

This document is based on material provided by Yann Frauel and describes how to make your C++ code ITM compliant and how to turn it into a Kepler (29) actor (29) .

5.9.1.1 Adapt your C++ function

You must include the header file `UALClasses.h` :

```
#include "UALClasses.h"
```

[270] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_User_Guide.pdf

The function arguments that are arrays or strings must be declared as pointers, as usual. All other arguments must be passed by reference (i.e. they must be declared with an ampersand):

```
void mycppfunction(double * vector, char * string, int & scalar)
```

The function arguments that are CPOs (29) must be declared with types `ItmNs::Itm::cpo_type` or `ItmNs::Itm::cpo_typeA`. The first form is for time-independent CPOs or a single slice of a time-dependent CPO. The latter is for a complete time-dependent CPO. Note that in all cases, the CPO is considered as a single object, not an array, so it must be passed by reference as mentioned above:

```
void mycppfunction(
ItmNs::Itm::limiter & lim,
ItmNs::Itm::coreimpur & cor,
ItmNs::Itm::ironmodelArray & iron)
```

The syntax is identical for input and output arguments. For output CPOs, do not forget to use the usual methods to assign strings and allocate arrays:

```
lim.datainfo.dataprovider.assign("test_limiter");
iron.array.resize(3);
iron.array(j).desc_iron.geom_iron.npoints.resize(3);
```

Otherwise, the content of CPOs is accessed as usual:

```
cout << lim.datainfo.dataprovider << endl;
cout << iron.array(j).desc_iron.geom_iron.npoints(i);
```

5.9.1.2 How to use code parameters

The code parameters are passed as the last argument with ItmNs::codeparam_t& type:

```
void mycppfunction(..., ItmNs::codeparam_t & codeparam)
```

Each field of the *param* structure is a vector of 132-byte strings, not necessarily terminated by 0-character! (This does not follow C/C++ standards and should be changed in the future.)

5.9.1.3 Compile your function as a library

You need to include the header directories for the UAL (29) and Blitz:

```
-I$(UAL)/include -I$(UAL)/lowlevel -I$(UAL)/cppinterface/ -I/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/include/
```

Same for linking:

```
-L$(UAL)/lib -lUALCPPInterface -lUALLowLevel -L/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/lib -lblitz
```

Additionally, you must compile with the -fPIC option.

5.9.1.4 Full example

We want to generate an actor that has three different types of actors as inputs and three different types of actors as output. Additionally, we have an integer as input/output, a vector of doubles as output and a string as output. We also want to use code parameters.

Content of mycppfunction.cpp:

```
#include "UALClasses.h"

typedef struct {
      char **parameters;
      char **default_param;
      char **schema;
} param;

void mycppfunction(
      ItmNs::Itm::summary & sum,
      ItmNs::Itm::antennas & ant,
      ItmNs::Itm::equilibriumArray & eq,
      int & x,
      ItmNs::Itm::limiter & lim,
      ItmNs::Itm::coreimpur & cor,
      ItmNs::Itm::ironmodelArray & iron,
      double * y,
      char * str,
param & codeparam)
{

      /* display first line of parameters */
      cout << codeparam.parameters[0] << endl;
      cout << codeparam.default_param[0] << endl;
      cout << codeparam.schema[0] << endl;
      /* display content of inputs */
      cout << "x=" << x << endl;
      cout << sum.time << endl;
      cout << sum.datainfo.dataprovider << endl;
      cout << ant.datainfo.dataprovider << endl;
      cout << eq.array(0).datainfo.dataprovider << endl;
      for (int k=0; k<3; k++) {
           for (int i=0; i<4; i++) {
                 cout << eq.array(k).profiles_1d.psi(i)<< " ";
           }
           cout << endl;
      }
      /* fill limiter CPO */
      lim.datainfo.dataprovider.assign("test_limiter");
      lim.position.r.resize(5);     // allocate vector
      for (int i=0; i<5; i++) {
            lim.position.r(i)=(i+1);
      }
      /* fill coreimpur CPO */
      cor.datainfo.dataprovider.assign("test_coreimpur");
      cor.flag.resize(3);          // allocate vector
      for (int i=0; i<3; i++) {
            cor.flag(i)=(i+1)*10;
      }
      cor.time=0; // don't forget to fill time for time-dependent CPOs
      /* fill ironmodel CPO */
      iron.array.resize(3);        // allocate slices
```

```
        for (int j=0; j<3; j++) {
                char s[255];
                sprintf(s,"test_ironmodel%d",j);
                iron.array(j).datainfo.dataprovider.assign(s); // allocate vector
                iron.array(j).desc_iron.geom_iron.npoints.resize(3);
                for (int i=0; i<3; i++) {
                        iron.array(j).desc_iron.geom_iron.npoints(i)=j*i;
                }
                iron.array(j).time=j;       // fill time for time-dependent CPOs
        }
        /* assign value to non CPO outputs */
        x=5;
        for (int i=0; i<10; i++) {
                y[i]=i;
        }
        strcpy(str,"This is a test string");
}
```

Content of *Makefile* :

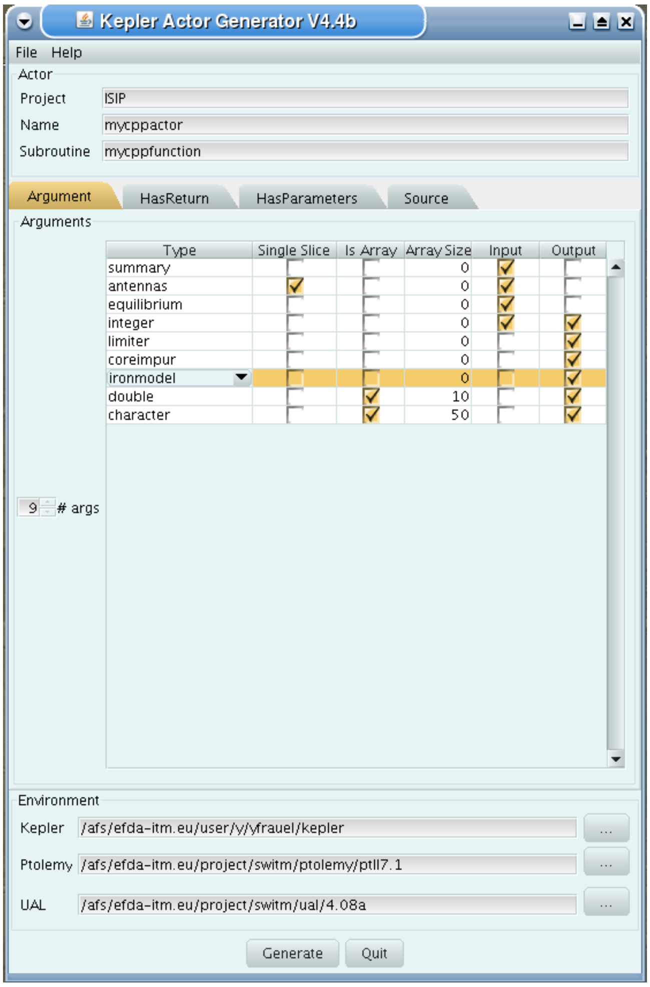
```
CXXFLAGS=-g -fPIC -I$(UAL)/include -I$(UAL)/lowlevel -I$(UAL)/cppinterface/
-I$SWITMDIR/blitz/blitz-0.9/include/
LDFLAGS=-L$(UAL)/lib -lUALCPPInterface -lUALLowLevel -L/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/lib -lblitz
libmycppfunction.a: mycppfunction.o
        ar -rvs libmycppfunction.a mycppfunction.o
mycppfunction.o: mycppfunction.cpp
clean:
        rm mycppfunction.o libmycppfunction.a
```

5.9.1.5 How to fill the FC2K window

First tab (Argument):

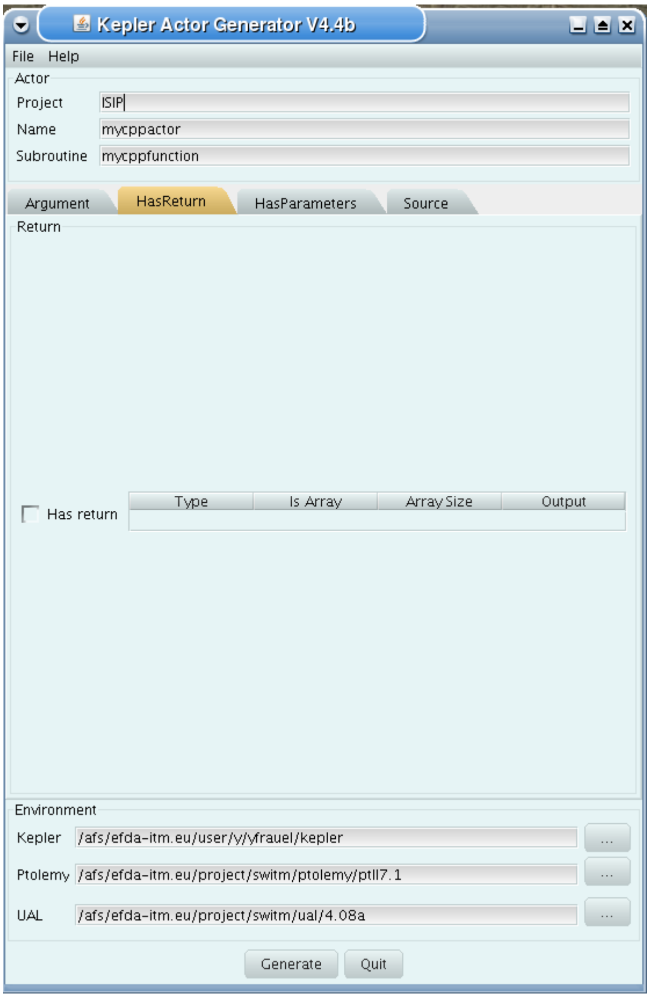
- set number of input and output arguments (combined)
- select type of arguments from drop-down menu
- tick if argument is a single time slice
- tick if argument is array (not for pointers)
- if necessary define size of arrays
- tick if argument is input argument
- tick if argument is output argument (multiple ticks possible)

The fields `Kepler` , `Ptolemy` , and `UAL` are automatically filled with the values which you set by running the **ITMv1 script** .



Second tab (HasReturn):

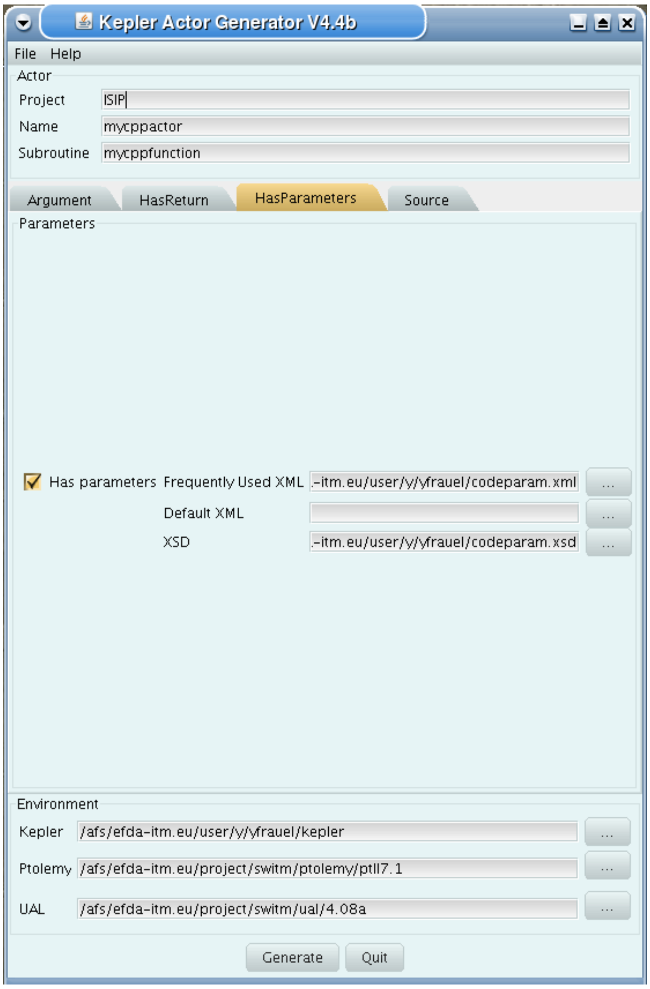
- specify return parameters (type, array, size)



Third tab (HasParameters):

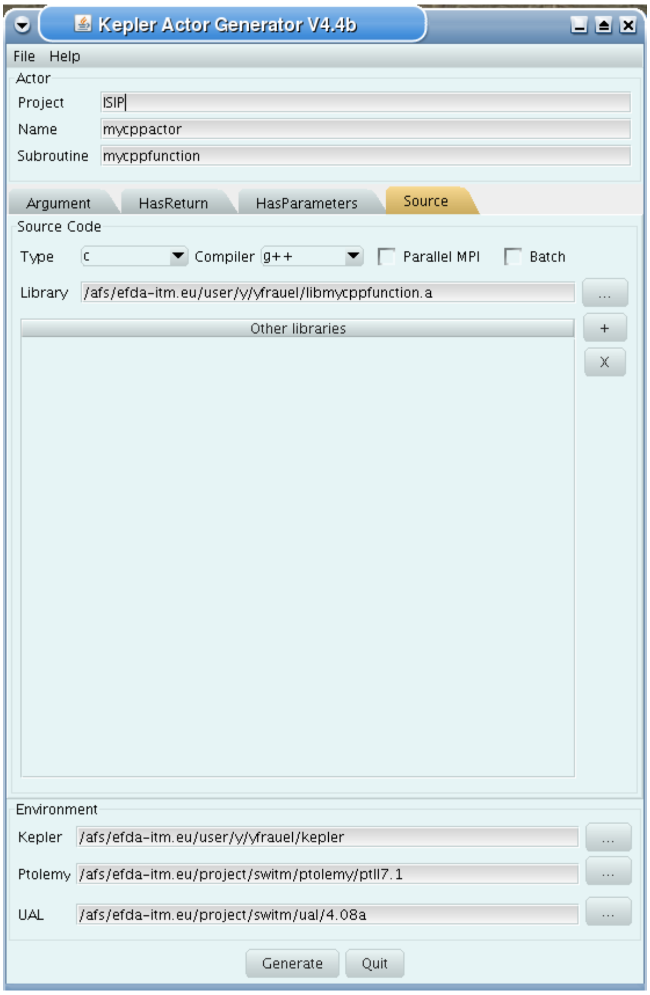
- tick if subroutine uses code specific parameters
- specify (or browse for) XML code parameter input file
- specify (or browse for) XML default code parameter file
- specify (or browse for) W3C XML schema file (XSD)

For information on code specific parameters, please see How to handle code specific parameters (13.6).



Fourth tab (Source):

- specify programming language of source code
- select appropriate compiler
- tick Parallel MPI if code module is using MPI
- tick Batch if code module shall be run in batch mode rather than interactively when running Kepler workflows
- specify (or browse for) library file containing the code module
- specify (or browse for) other libraries required by the code module



---

last update: 2013-09-12 by dpc

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last update: 2019-01-31 by g2dpc

5.10 Kepler

5.10.1 Setup

These are instructions for installing the Kepler (29) release for data version 4.10a

Install a private version of KEPLER for 4.10a on your account:

```
cd ~
rm -rf kepler .kepler
tar xvf $SWITMDIR/kepler/4.10a/kepler.tar
```

Set the Kepler, UAL (29) and database environment variables. Kepler will work in your private database, under the machine TokamakName (TokamakName=test is allowed for testing purposes).

```
source $ITMSCRIPTDIR/ITMv1 KeplerFolder TokamakName DataVersion
```

KeplerFolder should be your private Kepler path relative to your home directory. Simply "kepler" is recommended, unless you want to have several private versions of Kepler in your directory. Example:

```
source $ITMSCRIPTDIR/ITMv1 kepler test 4.10a
```

If this is not run on restart, kepler will open in the default environment which is not what you want!

To have your environment set by default (**mandatory for new features such as debugging, use of batch jobs, ...**), it is recommended to set default envinronment variables by adding this command in you .cshrc file as follows:
`source $ITMSCRIPTDIR/ITMv1 KeplerFolder TokamakName DataVersion >/dev/null`

Prepare the input data (see Databases (5.7) for details). Create a "test" zone in your private ITM data tree if you haven't already done it.

```
$ITMSCRIPTDIR/create_user_itm_dir test 4.10a
```

This version of Kepler is provided with a few workflow examples, located in the kepler/demos directory. To use them, you need to copy the example input data set (shot 4, run 1) from the public database to your test database.

```
cp /pfs/itmdb/itm_trees/public/test/4.10a/mdsplus/0/euitm_40001.* \
   $HOME/public/itmdb/itm_trees/test/4.10a/mdsplus/0
```

Run KEPLER:

```
kepler
```

Select File > Open File and open any of the example workflows in the demos directory. Start for instance with staticexample.xml. Results will be written to your private database.

```
ls -gtr $HOME/public/itmdb/itm_trees/test/4.10a/mdsplus/0
```

5.10.2 Issues

1. If the kepler environment variables are not set as described above (5.10.1), kepler will open in the default environment which is probably not what you want. Kepler will probably complain about missing files. Check that $KEPLER points at your private version.

2. If Kepler refuses to run. it may be because you have last run it on a different gateway (29) node. Delete .kepler and try again!

3. If Kepler dies, the core dump can be enormous - 1.6GB seen with an ITM test workflow. To find core files in your home directory tree do

   ```
   find ~/ -name 'core.*'
   ```

   and to check disk quota, do

   ```
   fs listquota
   ```

4. If you have selected the debug mode of an actor (*configure actor*), Kepler will fire up `totalview` when running this actor. The process which starts `totalview` will do so in a new shell. Therefore, any `.cshrc` or `.login` file will be sourced again and environment variables (like `TOKAMAKNAME` or `UAL`) will be reset to the values defined in these files (if you included for instance a source of the ITMv1 script). This may result in Kepler not being able to access the `runwork` data file anymore since this was stored at the original location in the data base.
   If running actors in debug mode, make sure that `TOKAMAKNAME` and `UAL` set in `.cshrc` and `.login` are what you expect them to be!

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5.11 KeplerActors

The **kepleractors** project under GForge (29) is used for exchanging Kepler (29) actors (29) among ITM users.

This project and its associated SVN repository have been created related to the GForge (29) project **Kepler-workflows (5.16.1.2.13)** for enhancing traceability and reproducibility of simulations.

We describe here a complete procedure that is recommended for traceability purpose. The goal is to be able to keep track of how the actor has been generated (Gforge project of the source code, FC2K (29) parameters, ...).

For public releases a unique name shall be assigned to the actor:

All **public actors** should be generated (and thus appear in Kepler) with a name which is the concatenation of `actor_base_name + actor_public_version .`
`actor_base_name` : this can be chosen arbitrarily, though we suggest that it corresponds to project name under Gforge, i.e. the name of the source code's project under Gforge when there is a one-to-one link between the Gforge project and the actor.
`actor_public_version` : is the number of public release for this particular actor.
`actor_name` : concatenation of actor_base_name and actor_public_version

5.11.1 Structure of the actor repository

The actor repository is under SVN under the Gforge project **kepleractors** .

The policy is that people use SVN/trunk for development versions, while official releases should be done under tags.

To check out the repository please do

```
svn checkout https://gforge6.eufus.eu/svn/kepleractors target_dir
```

The structure of the actor_repository directory is:

```
kepleractors/trunk/datastructure_version/IMP/physics_topic/actor_base_name/ \
actor_public_version/
```

`IMP` : is imp12 .. imp5 or isip. IMPs can add another level fo more detailed classification, e.g. fixed boundary equilibrium, free boundary equilibrium, linear MHD, etc.

It is the responsibility of the actor provider to create the appropriate directories under SVN.

Currently the **kepleractors** repository has the following subdirectories for the UAL release versions (5.6.1):

```
- 4.07b
- 4.07c
- 4.08a
- 4.08b
- 4.09a
```

Each UAL (29) release version hosts the following subdirectories for the ITM projects:

```
- amns
- edrg
- isip
- imp12
- imp3
- imp4
- imp5
- ism
```

Below these the following physics topics are currently defined:

```
imp12:
 - fixed_boundary_equilibrium
 - free_boundary_equilibrium
 - linear_MHD
 - NTM
 - numerical_tools
 - RWM
 - sawtooth
```

5.11.2 Content of the actor repository

All files are stored at the bottom level of the tree structure. These are:

- actor TAR file generated by the `extract_actor` script (via the `put_repository` script)
- `actor_info.xml` file generated by the `put_repository` script
- FC2K parameter XML file (the FC2K parameters with which the actor has been created, obtained by selecting `save` in the FC2K menu)
- `actor_doc` file (PDF or TAR). Any useful and up-to-date documentation file (PDF recommended) should be gathered in a TAR archive with standardised name `actor_doc.tar` .

The `actor_info.xml` file is in an XML file gathering the following information (aiming at establishing a book-keeping link between the actor files and the source code, as stored in Gforge:

- Actor_name (as defined above)
- Gforge project name: name of the source code's project under Gforge
- SVN_rev: revision number of the source code in the SVN repository
- SVN_path: path of the source code in the SVN repository (e.g. `tag/v4.0`)
- FC2K_version: evaluated on the fly from `$FC2K`
- datastructure_version: evaluated on the fly from `$UAL`
- KEPLER_version: in ITM numbering

5.11.3 Procedure to put an actor in the actor repository

This procedure describes how to proceed to update the kepleractor repository according to the above organization.

5.11.3.1 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for FC2K and the UAL (29))
- Go into a directory in which you have write permission

5.11.3.2 How to

When you have generated a Kepler actor with FC2K, using the name convention as indicated above (actor_name), you can update the SVN repository :

- Prepare any `actor_doc` file (PDF or TAR)
- Run the script `put_repository`

```
put_repository actor_name Gforge_project_name SVN_rev SVN_path
```

  The actions done by the `put_repository` script are:

  – Run the `extract_actor` script to take out the actor from the private Kepler, and generate an actor TAR file
  – Generate the `actor_info.xml` file, evaluating some information on the fly from environment variables as stated above

- Use the standard SVN commands to move in the relevant place in the SVN kepleractors repository the following files :

  – the FC2K parameter file
  – the `actor.tar` file generated by the `put_repository` script
  – the `actor_doc.tar` file
  – the `actor_info.xml` file generated by the `put_repository` script

5.11.4 Procedure to get an actor from the actor repository

The script `import_actor` allows to import an existing actor directly from the kepleractors SVN repository into your own distribution of Kepler.

The script search the actor repository under the Gforge project **kepleractors** (in the trunk and in the tags sections). Its content (actor TAR file, `actor_info.xml` file, and `actor_doc` file if exists) is copied in the current working directory and the actor extracted from the TAR file is added in the private copy of Kepler.

5.11.4.1 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.11.4.2 How to import an actor from svn repository

- You do not know the location of the actor in the repository

  Usage:

```
import_actor -R
\textit{actor\_name
```

Example:

```
import_actor -R gray
```

path_to_the_actor_in_the_svn_repository is trunk/4.08b/imp5/electron_physics/gray
actor_name is gray

The script displays the location(s) of the actor in the svn repository (under trunk and tags subdirectories) and the user can choose the item he wants to import

- You know the location of the actor in the repository

  Usage:

```
import_actor -d
\textit{path\_to\_the\_actor\_in\_the\_svn\_repository actor\_name
```

Example:

```
import_actor -d trunk/4.08b/imp5/electron_physics/gray gray
```

path_to_the_actor_in_the_svn_repository is trunk/4.08b/imp5/electron_physics/gray
actor_name is gray

5.11.4.3 How to import an actor from local location

Using the script `import_actor` , it is also possible to put into your private copy of Kepler an actor which is not stored in the SVN kepleractors repository.

In this case, you need an actor TAR file generated by the script `extract_actor` . This method is not recommended because the reproducibility of simulations cannot be ensured.

- Copy into the current directory or locate the tar file that contains the actor. The file does not have to be in your own directory. Only read permission is needed.

  Usage:

```
import_actor [
\textit{path
}]
\textit{actor\_name
```

Example:

```
import_actor ~/private/ACTORS/gray
```

path is ~/private/ACTORS
actor_name is gray

path is only necessary if the tar file that contains the actor is not located in the current directory.

5.11.4.4 Additional options of the script import_actor

- -h : display usage information
- -f : force import of an already present actor
- -p : partial import; copy files but do not compile Kepler
- -s : skip import if the actor is already present

---

last update: 2019-01-31 by g2dpc

5.12 KeplerWorkflows

The **keplerworflows** project under GForge (29) is used for exchanging Kepler (29) workflows among ITM users.

Under this project, ITM developers should store the XML file describing the Kepler (29) workflow. The workflow should not be dependent on any other file. To be reproducible, public ITM workflows must use only ITM actors from the public kepleractors (5.16.1.2.2) repository with a unique naming convention.

Input datasets used by the workflow must be copied from the private to the public ITM database (email to Frederic.Imbeaux@cea.fr for the moment).

5.12.1 Structure of the workflows repository

The **keplerworkflows** repository is under SVN under the Gforge (29) project **KeplerWorkflows** .

It is recommended to use the `tags` directory for release versions and `trunk` for development versions: only public versions of `trunk/datastructure_version/` should be tagged as `tags/datastructure_version/` .

To check out the repository please do

```
svn checkout https://gforge6.eufus.eu/svn/keplerworkflows target_dir
```

The workflow is organised in the following way:

```
    keplerworkflows/trunk/datastructure_version/IMP/physical_topic/workflowname
```

Currently the **keplerworkflows** repository has the following subdirectories for the UAL release versions (5.6.1):

```
- 4.07b
- 4.07c
- 4.08a
- 4.08b
- 4.09a
```

Each UAL (29) release version hosts the following subdirectories for the ITM projects:

```
- amns
- edrg
- isip
- imp12
- imp3
- imp4
```

```
- imp5
- ism
```

Below these the following physics topics are currently defined:

```
    imp12:
     - fixed_boundary_equilibrium
     - free_boundary_equilibrium
     - linear_MHD
```

5.12.2 Procedure to put a workflow in the workflows repository

The script `put_workflow` allows to commit a workflow (in fact, the xml file created by Kepler when the workflow is saved) in the svn repository https://gforge6.eufus.eu/svn/keplerworkflows.

5.12.2.1 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.12.2.2 How to commit a workflow in the repository

Copy into the current directory or locate the xml file describing the workflow. This xml file is created by Kepler when you save a designed workflow. The file does not have to be in your own directory. Only read permission is needed.

Usage :

```
put_workflow [options] d
\textit{svnpath
} [
\textit{path
}/]
\textit{workflowname
```

svnpath is mandatory after -d to point out the target location of the workflow in the svn repository.
path is only necessary if the xml file of the workflow is not located in the current directory.

Example :

```
put_workflow d trunk/4.08b/isip/examples/loopexample ./loopexample/loopexample.xml
```

svnpath is isip/examples/loopexample
path is ./loopexample
workflowname is loopexample.xml

The script `put_workflow` copies the workflow xml file into the folder *svnpath* under the **KeplerWorklows** SVN repository.

NB : The subdirectory of `trunk` or `tags` corresponding to the data structure version must match the current $DATAVERSION environment variable

5.12.2.3 Additional options

- -h : display usage information
- -c : create the target directory in the svn repository **keplerworkflows** if it does not exist
- -m : message for svn import

5.12.3 Procedure to get a workflow from the workflows repository

The script `import_svn_workflow` allows you to copy a workflow from the svn repository https://gforge6.eufus.eu/svn/kep in your workspace.

5.12.3.1 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.12.3.2 How to import workflow from svn repository

- You do not know the location of the workflow in the repository

  Usage:

  ```
  import_svn_workflow -R
  \textit{workflowname
  ```

  Example:

  ```
  import_svn_workflow R loopexample.xml
  ```

  The script displays the location(s) of the workflow in the svn repository (in `trunk` or `tags` subdirectories) and the user can choose the item he wants to import.

- You know the location of the workflow in the repository

  Usage:

  ```
  import_svn_workflow -d
  \textit{path\_to\_the\_workflow\_in\_the\_svn\_repository workflowname
  ```

  Example:

  ```
  import_svn_workflow -d trunk/4.08b/isip/examples/loopexample  loopexample.xml
  ```

  path_to_the_workflow_in_the_svn_repository is trunk/4.08b/isip/examples/loopexample
  workflowname is loopexample.xml

- Import the actors used by the workflow

  If the option **-a** is added to the previous command lines, the script `import_svn_workflow` also imports the actors used by the workflow, if they exist in the **KeplerActors** SVN repository.newline/¿ For each actor, the script `import_svn_workflow` launch the command

```
import_actor -R
\textit{actor\_name
```

and search in the **Kepleractors** SVN repository if the actor exists, and if exists, import it in the private copy of Kepler.

For more details about the script `import_actor` , see the section

How to import an actor from svn repository (5.16.1.2.19).

NB : The subdirectory of `trunk` or `tags` corresponding to the data structure version must match the current $DATAVERSION environment variable

5.12.3.3 Additional options

- -h : display usage information
- -a : import the actors used by the workflow from the svn repository
- -f : ignored if -a not present; force import of an already present actor
- -p : ignored if -a not present; partial import: copy files but do not compile Kepler"
- -s : ignored if -a not present; skip import if the actor is already present

---

last update: 2019-01-31 by g2dpc

5.13 Integrated Simulation Editor (ISE)

The Integrated Simulation Editor ISE (29) allows to visualise and edit data from an ITM database entry. It also allows running a Kepler (29) workflow based on the opened data entry.

ISE is launched by simply typing **ise** in a terminal.

A short ISE tutorial can be found here [271].

---

last update: 2011-05-26 by imbeaux

5.14 Tools

5.14.1 MDSplus

Default private databases are MDSplus. Before using MDSplus tools to access them you must define an environment variable:

```
setenv euitm_path $HOME/public/itmdb/itm_trees/test/4.08a/mdsplus/0
```

Now you can use **mdstcl** , **jTraverser** and **jScope** to access the data.

To access MDSplus data using jTraverser, select *file* > *open* , then Tree: euitm, Shot: <the number following euitm_ in the database file name>.

---

last update: 2010-08-03 by konz

[271] https://www.efda-itm.eu/ITM/imports/isip/public/isip_IntroductionISE.pdf

5.15 Gateway

ENEA Gateway Documentation: [272] Read this first!

OpenAFS Home: [273] Everything you want to know about AFS.

Gateway User's Guide: [274] Older gateway documentation.

5.15.1 Access Forms for the ITM Gateway

5.15.1.1 How to get an account on the ITM Gateway

As a new contributor to the ITM-TF or a new user on the ITM-TF Gateway (29) you are requested to sign the ITM-TF Gateway User Agreement (doc) [275](pdf) [276]. This is required to get an account on the Gateway the ITM-TF development home.

Please fill in the requested information and send the signed document to

Att: ITM-TF/Gloria Falchetto
Association EURATOM-CEA
DSM/IRFM/SCCP, bt. 513/141
CEA-Cadarache
13108 Saint Paul-Lez-Durance Cedex
France

Or fax to:

+33 442 25 6233

Or send as an e-mail attachment to (Subject: Gateway User Agreement):

gloria.falchetto@cea.fr

New Gateway User Greeting (doc) [277](pdf) [278]

5.15.1.2 ITM policy on Access Rights and Software Licencing

The ITM has defined a model licence for all physics codes and numerical tools (including the ITM infrastructure) that have been contributed/developed within the framework of the ITM Workprogramme. This model licence [279] was approved by the EFDA Steering Committee on October 2009.

---

last update: 2010-11-23 by konz

5.15.2 Using SSH

You can login to the Gateway (29) directly with SSH:

```
ssh -X <user>@gateway.efda-itm.eu
```

-X is required if you want to run X applications over the connection.

[272] http://www.efda-itm.eu/docs/documentation.php
[273] http://www.openafs.org
[274] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITM_gateway_users_guide_v3-1.pdf
[275] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[276] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
[277] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[278] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[279] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf

5.15.3 Using SFTP

Use SFTP to transfer files to/from the Gateway:

```
sftp <user>@gateway.efda-itm.eu
```

If sftp fails with 'Connection closed', or you get an error message like 'Received message too long (or "Bad packet length") 1416586337', your shell startup script (eg ~/.cshrc, ~/.bashrc) on the Gateway system is writing to standard output and confusing it. This is a known problem with sftp. Note that .login is evidently not run when and sftp session is started; standard output from that does not upset it. The solution is to disable the output or wrap the offending script in a conditional statement so it is only executed if the shell is interactive. For example, with cshrc:

```
if ($?prompt) then
   <original contents>
endif
```

For more see faq1 [280] and faq2 [281]. Thanks to Francesco Iannone for this information.

5.15.4 Using NX

NX from NoMachine [282] allows you to run a remote X11 login session on the Gateway from your local machine. To use it you must first download an NX client from NoMachine and install it locally. The default installation location for the NX executable is /usr/NX/bin/nxclient. When you run NX for the first time, after logging in with your assigned user name and password, and providing a session name, a configuration dialogue appears. Set the following values:

```
Host:    gateway.efda-itm.eu
Port:    22
Key:     default
Network: WAN
Desktop: Unix, KDE
Display: Available area
```

Do not disable encryption in the Advanced tab.

When this is done, the Gateway window manager should appear each time you run NX with the session name you provided.

5.15.5 Disk Quota

Users' home directories are in the Andrew File System. To check your disk quota do

```
fs listquota
```

Note that Kepler (29) ITM workflow core dumps can be ¿1.6GB in size!!

---

last update: 2010-09-17 by konz

5.16 Portal

WORK IN PROGRESS

https://portal.efda-itm.eu/portal [283]

[280] http://www.tfn.net/~bsbaker/support/helplink/html/supp/supp-connect-use-sftp.html
[281] http://www.snailbook.com/faq/sftp-corruption.auto.html
[282] http://www.nomachine.com
[283] https://portal.efda-itm.eu

5.16.1 GForge

5.16.1.1 GForge Documentation

The GForge Group L.L.C. has published extensive documentation material in the form of the GForge AS User Manual [284] and the GForge AS Project Administrator Manual [285]. Please refer to these manual if in doubt on how to use a feature of the ITM GForge system.

5.16.1.2 GForge Projects

5.16.1.2.1 Kepler Projects

The projects listed here are all related to the workflow orchestration tool Kepler (29) .

5.16.1.2.2 KeplerActors

The **kepleractors** project under GForge (29) is used for exchanging Kepler (29) actors (29) among ITM users.

This project and its associated SVN repository have been created related to the GForge (29) project **Kepler-workflows (5.16.1.2.13)** for enhancing traceability and reproducibility of simulations.

We describe here a complete procedure that is recommended for traceability purpose. The goal is to be able to keep track of how the actor has been generated (Gforge project of the source code, FC2K (29) parameters, ...).

For public releases a unique name shall be assigned to the actor:

All **public actors** should be generated (and thus appear in Kepler) with a name which is the concatenation of `actor_base_name + actor_public_version` .
`actor_base_name` : this can be chosen arbitrarily, though we suggest that it corresponds to project name under Gforge, i.e. the name of the source code's project under Gforge when there is a one-to-one link between the Gforge project and the actor.
`actor_public_version` : is the number of public release for this particular actor.
`actor_name` : concatenation of actor_base_name and actor_public_version

5.16.1.2.3 Structure of the actor repository

The actor repository is under SVN under the Gforge project **kepleractors** .

The policy is that people use SVN/trunk for development versions, while official releases should be done under tags.

To check out the repository please do

```
svn checkout https://gforge6.eufus.eu/svn/kepleractors target_dir
```

The structure of the actor_repository directory is:

```
kepleractors/trunk/datastructure_version/IMP/physics_topic/actor_base_name/ \
actor_public_version/
```

`IMP` : is imp12 .. imp5 or isip. IMPs can add another level fo more detailed classification, e.g. fixed boundary equilibrium, free boundary equilibrium, linear MHD, etc.

[284] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[285] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf

It is the responsibility of the actor provider to create the appropriate directories under SVN.

Currently the **kepleractors** repository has the following subdirectories for the UAL release versions (5.6.1):

```
- 4.07b
- 4.07c
- 4.08a
- 4.08b
- 4.09a
```

Each UAL (29) release version hosts the following subdirectories for the ITM projects:

```
- amns
- edrg
- isip
- imp12
- imp3
- imp4
- imp5
- ism
```

Below these the following physics topics are currently defined:

```
imp12:
 - fixed_boundary_equilibrium
 - free_boundary_equilibrium
 - linear_MHD
 - NTM
 - numerical_tools
 - RWM
 - sawtooth
```

5.16.1.2.4 Content of the actor repository

All files are stored at the bottom level of the tree structure. These are:

- actor TAR file generated by the `extract_actor` script (via the `put_repository` script)
- `actor_info.xml` file generated by the `put_repository` script
- FC2K parameter XML file (the FC2K parameters with which the actor has been created, obtained by selecting `save` in the FC2K menu)
- `actor_doc` file (PDF or TAR). Any useful and up-to-date documentation file (PDF recommended) should be gathered in a TAR archive with standardised name `actor_doc.tar` .

The `actor_info.xml` file is in an XML file gathering the following information (aiming at establishing a book-keeping link between the actor files and the source code, as stored in Gforge:

- Actor_name (as defined above)
- Gforge project name: name of the source code's project under Gforge
- SVN_rev: revision number of the source code in the SVN repository
- SVN_path: path of the source code in the SVN repository (e.g. `tag/v4.0`)

- FC2K_version: evaluated on the fly from `$FC2K`
- datastructure_version: evaluated on the fly from `$UAL`
- KEPLER_version: in ITM numbering

5.16.1.2.5 Procedure to put an actor in the actor repository

This procedure describes how to proceed to update the kepleractor repository according to the above organization.

5.16.1.2.6 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for FC2K and the UAL (29))
- Go into a directory in which you have write permission

5.16.1.2.7 How to

When you have generated a Kepler actor with FC2K, using the name convention as indicated above (actor_name), you can update the SVN repository :

- Prepare any `actor_doc` file (PDF or TAR)
- Run the script `put_repository`

  ```
  put_repository actor_name Gforge_project_name SVN_rev SVN_path
  ```

  The actions done by the `put_repository` script are:

  - Run the `extract_actor` script to take out the actor from the private Kepler, and generate an actor TAR file
  - Generate the `actor_info.xml` file, evaluating some information on the fly from environment variables as stated above

- Use the standard SVN commands to move in the relevant place in the SVN kepleractors repository the following files :

  - the FC2K parameter file
  - the `actor.tar` file generated by the `put_repository` script
  - the `actor_doc.tar` file
  - the `actor_info.xml` file generated by the `put_repository` script

5.16.1.2.8 Procedure to get an actor from the actor repository

The script `import_actor` allows to import an existing actor directly from the kepleractors SVN repository into your own distribution of Kepler.

The script search the actor repository under the Gforge project **kepleractors** (in the trunk and in the tags sections). Its content (actor TAR file, `actor_info.xml` file, and `actor_doc` file if exists) is copied in the current working directory and the actor extracted from the TAR file is added in the private copy of Kepler.

5.16.1.2.9 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.16.1.2.10 How to import an actor from svn repository

- You do not know the location of the actor in the repository

  Usage:

  ```
  import_actor -R
  \textit{actor\_name
  ```

  Example:

  ```
  import_actor -R gray
  ```

  path_to_the_actor_in_the_svn_repository is trunk/4.08b/imp5/electron_physics/gray
  actor_name is gray

  The script displays the location(s) of the actor in the svn repository (under trunk and tags subdirectories) and the user can choose the item he wants to import

- You know the location of the actor in the repository

  Usage:

  ```
  import_actor -d
  \textit{path\_to\_the\_actor\_in\_the\_svn\_repository actor\_name
  ```

  Example:

  ```
  import_actor -d trunk/4.08b/imp5/electron_physics/gray gray
  ```

  path_to_the_actor_in_the_svn_repository is trunk/4.08b/imp5/electron_physics/gray
  actor_name is gray

5.16.1.2.11 How to import an actor from local location

Using the script `import_actor` , it is also possible to put into your private copy of Kepler an actor which is not stored in the SVN kepleractors repository.

In this case, you need an actor TAR file generated by the script `extract_actor` . This method is not recommended because the reproducibility of simulations cannot be ensured.

- Copy into the current directory or locate the tar file that contains the actor. The file does not have to be in your own directory. Only read permission is needed.

  Usage:

  ```
  import_actor [
  \textit{path
  }]
  \textit{actor\_name
  ```

  Example:

```
import_actor ~/private/ACTORS/gray
```

path is ~/private/ACTORS
actor_name is gray

path is only necessary if the tar file that contains the actor is not located in the current directory.

5.16.1.2.12 Additional options of the script import_actor

- -h : display usage information
- -f : force import of an already present actor
- -p : partial import; copy files but do not compile Kepler
- -s : skip import if the actor is already present

---

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5.16.1.2.13 KeplerWorkflows

The **keplerworflows** project under GForge (29) is used for exchanging Kepler (29) workflows among ITM users.

Under this project, ITM developers should store the XML file describing the Kepler (29) workflow. The workflow should not be dependent on any other file. To be reproducible, public ITM workflows must use only ITM actors from the public kepleractors (5.16.1.2.2) repository with a unique naming convention.

Input datasets used by the workflow must be copied from the private to the public ITM database (email to Frederic.Imbeaux@cea.fr for the moment).

5.16.1.2.14 Structure of the workflows repository

The **keplerworkflows** repository is under SVN under the Gforge (29) project **KeplerWorkflows** .

It is recommended to use the `tags` directory for release versions and `trunk` for development versions: only public versions of `trunk/datastructure_version/` should be tagged as `tags/datastructure_version/` .

To check out the repository please do

```
svn checkout https://gforge6.eufus.eu/svn/keplerworkflows target_dir
```

The workflow is organised in the following way:

```
    keplerworkflows/trunk/datastructure_version/IMP/physical_topic/workflowname
```

Currently the **keplerworkflows** repository has the following subdirectories for the UAL release versions (5.6.1):

```
- 4.07b
- 4.07c
- 4.08a
- 4.08b
- 4.09a
```

Each UAL (29) release version hosts the following subdirectories for the ITM projects:

```
- amns
- edrg
- isip
- imp12
- imp3
- imp4
- imp5
- ism
```

Below these the following physics topics are currently defined:

```
    imp12:
     - fixed_boundary_equilibrium
     - free_boundary_equilibrium
     - linear_MHD
```

5.16.1.2.15 Procedure to put a workflow in the workflows repository

The script `put_workflow` allows to commit a workflow (in fact, the xml file created by Kepler when the workflow is saved) in the svn repository https://gforge6.eufus.eu/svn/keplerworkflows.

5.16.1.2.16 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.16.1.2.17 How to commit a workflow in the repository

Copy into the current directory or locate the xml file describing the workflow. This xml file is created by Kepler when you save a designed workflow. The file does not have to be in your own directory. Only read permission is needed.

Usage :

```
put_workflow [options] d
\textit{svnpath
} [
\textit{path
}/]
\textit{workflowname
```

svnpath is mandatory after -d to point out the target location of the workflow in the svn repository.
path is only necessary if the xml file of the workflow is not located in the current directory.

Example :

```
put_workflow d trunk/4.08b/isip/examples/loopexample ./loopexample/loopexample.xml
```

svnpath is isip/examples/loopexample
path is ./loopexample
workflowname is loopexample.xml

The script `put_workflow` copies the workflow xml file into the folder *svnpath* under the **KeplerWorklows** SVN repository.

NB : The subdirectory of `trunk` or `tags` corresponding to the data structure version must match the current $DATAVERSION environment variable

5.16.1.2.18 Additional options

- -h : display usage information
- -c : create the target directory in the svn repository **keplerworkflows** if it does not exist
- -m : message for svn import

5.16.1.2.19 Procedure to get a workflow from the workflows repository

The script `import_svn_workflow` allows you to copy a workflow from the svn repository https://gforge6.eufus.eu/svn/kep in your workspace.

5.16.1.2.20 Pre-requisites

- Have a copy of Kepler installed in your environment
- Run the script `ITMv1` to specify the working kepler directory (private) and set the environment variables (for the UAL)
- Go into a directory in which you have write permission

5.16.1.2.21 How to import workflow from svn repository

- You do not know the location of the workflow in the repository

  Usage:

  ```
  import_svn_workflow -R
  \textit{workflowname
  ```

  Example:

  ```
  import_svn_workflow R loopexample.xml
  ```

  The script displays the location(s) of the workflow in the svn repository (in `trunk` or `tags` subdirectories) and the user can choose the item he wants to import.

- You know the location of the workflow in the repository

  Usage:

  ```
  import_svn_workflow -d
  \textit{path\_to\_the\_workflow\_in\_the\_svn\_repository workflowname
  ```

  Example:

  ```
  import_svn_workflow -d trunk/4.08b/isip/examples/loopexample  loopexample.xml
  ```

path_to_the_workflow_in_the_svn_repository is trunk/4.08b/isip/examples/loopexample
workflowname is loopexample.xml

- Import the actors used by the workflow

  If the option **-a** is added to the previous command lines, the script `import_svn_workflow` also imports the actors used by the workflow, if they exist in the **KeplerActors** SVN repository.newline/¿ For each actor, the script `import_svn_workflow` launch the command

```
import_actor -R
\textit{actor\_name
```

  and search in the **Kepleractors** SVN repository if the actor exists, and if exists, import it in the private copy of Kepler.

  For more details about the script `import_actor`, see the section

  How to import an actor from svn repository (5.16.1.2.19).

NB : The subdirectory of `trunk` or `tags` corresponding to the data structure version must match the current $DATAVERSION environment variable

5.16.1.2.22 Additional options

- -h : display usage information
- -a : import the actors used by the workflow from the svn repository
- -f : ignored if -a not present; force import of an already present actor
- -p : ignored if -a not present; partial import: copy files but do not compile Kepler"
- -s : ignored if -a not present; skip import if the actor is already present

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last update: 2019-01-31 by g2dpc

5.16.1.2.23 Infrastructure Projects

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last update: 2010-08-24 by konz

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last update: 2012-07-18 by coster

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last update: 2010-08-15 by konz

5.17 Training

5.17.1 Tutorials

UAL tutorial [286]: only for those who want to test their ITM compliant program OUTSIDE Kepler
Kepler tutorial [287]: shows the steps you have to go through to build an actor from a physics subroutine and use it in a Kepler workflow

5.17.2 Garching, March 2012

Tutorial website: http://scilla.man.poznan.pl/garching2012 [288]

Presentations:

[286] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_TUTORIAL.pdf
[287] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf
[288] http://scilla.man.poznan.pl/garching2012

- ETS-C Workflow (T. Aniel, V. Basiuk, P. Huyn): Slides [289]
  Material is available at /afs/efda-itm.eu/isip/user/huynh/public/GARCHING2011
- ETS-A Workflow (D. Kalupin): Tutorial [290]
- Stability chain (W. Zwingmann) Slides [291]
  Material is available at ~zwolf/public/GARCHING2012/
- AMNS interface (D.Coster) Slides [292], Readme [293]
- C actor (H. Klingshirn) Slides [294], Readme [295]
- General grid description (H. Klingshirn) Slides [296], Readme [297]

5.17.3 Garching, September 2011

ITM-Serpens-Garching2011 [298]:

- installation of Kepler,
- creation of basic workflows,
- conditional execution and looping,
- embedding and execution of Python code inside of Kepler actor,
- usage of FC2K for generation of actors from Fortran or C++ code,
- usage of Integrated Simulation Editor (ISE) for data visualization and Kepler workflow execution,
- usage of HPC2K for generation of grid/HPC actors running Fortran or C++ code remotely,
- submission of parametric grid jobs.

5.17.4 Cadarache May 2009

Introduction: [299]general presentation, CPOs, database
Exercises: [300]manipulate ITM databases and create an ITM physics subroutine
Kepler Tutorial: [301]introduction to the Kepler workflow system
Kepler Exercises: [302]build a Kepler workflow from an ITM physics subroutine
Fortran XML Parser: [303]F95 library for parsing XML code parameters
Experimental Data: [304]overview of experimental data tools

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last update: 2019-01-31 by g2dpc

[289] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Huynh_ETS.pdf
[290] https://www.eufus.eu/documentation/ITM/html/ETS_in_KEPLER.html
[291] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_WZwingmann_equistab_V2.1.pdf
[292] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Coster_Using_AMNS_tools.pdf
[293] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Coster_Using_AMNS_tools_README.txt
[294] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_CActor.pdf
[295] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_CActor.README.txt
[296] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_Grid.pdf
[297] https://www.eufus.eu/documentation/ITM/html/imp3_grid_tutorial.html
[298] https://www.efda-itm.eu/ITM/imports/isip/public/ITM-Serpens-Garching2011.pdf
[299] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
[300] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[301] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[302] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[303] https://www.efda-itm.eu/ITM/imports/isip/public/isip_FortranXMLParser.pdf
[304] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ExperimentalDataITM_v3.pdf

5.18 Timeline

This ISIP timeline for 2010 was prepared by F. Imbeaux and G. Manduchi.

In 2009, we have for the first time assembled a complete version of the platform, from reading experimental data, actor (29) generation and management, to robust workflows including time evolution.

In 2010, ISIP needs to expand the functionality of these tools and upgrade them in a coordinated way with the needs of the IMPs.

Milestone for 2010 (expected for July) : full set of tools operational including visualisation tools, link to the simulation catalogue and operability of Kepler (29) actors on GRID & HPC

We propose the following timeline :

- **March:**
  - Deliver the second version of Kepler (in ITM numbering) : new features : improved expression actors, semantic type checking, Matlab actor ->DONE
  - Debugging procedure in Kepler ->DONE
  - Batch and MPI modes for ITM Kepler actors (FC2K (29)) ->DONE
  - Deliver ISE (29) ->DONE
- **April:**
  - Deliver data structure 4.08a, with many additions from IMPs (new CPOs (29)) ->DONE
  - Collect requirements of IMPs on Visit
  - Finalised tool for visualisation (Matplotlib)
- **May:**
  - Add Visit Kepler Actor (composite version) to the public Kepler distribution
  - Finalised release of the ITM control toolbox (link between Scicos and Kepler)
  - Evaluate strategy for parallel I/O for the UAL (29)
- **June:**
  - Deliver requirements for simulation catalogue querying tool
  - Implement the possibility of arrays of structures in the UAL and data structure
  - Technical meeting with the Kepler team
  - Deliver web service actor and grid/HPC actor generators : WS2K and HPC2K
- **July:**
  - Add automated generation of "remote" UAL to the UAL distribution
  - New data structure version with Visit representation tags
  - Deliver "newcomer ITM platform User Guide"
  - Implement full link with database through the UAL in workflows : UALinit, UALcollector communicate with the simulation catalogue (technically : change CPO definition for Kepler, change in FC2K)
  - Memory caching activated in Kepler workflows (running on a single node) (technically : changes on UAL, UALinit, UALcollector)
- **September:**
  - Improved code parameter edition forms in ISE/Kepler
- **October:**
  - ITM control toolbox : deliver link between Simulink and Kepler

- Memory caching in Kepler workflows (memory shared by multiple nodes on the Gateway (29))

- **November:**
  - Launch a full ITM workflow on GRID
  - Deliver simulation catalogue querying tool
  - Merge HPC2K, WS2K and FC2K into a unified tool
  - Visit for visualisation of time dependence

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last update: 2010-08-24 by konz

5.19 Links

5.19.1 Overviews

Par Strand's RUSA 2009 Presentation [305]

5.19.2 GForge Projects

Gateway User Board [306] > Wiki: [307] Gateway management
ITM Portal [308] > SVN [309] documentation and code
Data Structure [310] > SVN: [311] XML schemas
UAL [312] > SVN: [313] Universal Application Layer code
FC2K [314] > SVN: [315] Fortran/C to Kepler wrapper function generator
ISE [316] > Wiki [317] I SVN: [318] Integrated Simulation Editor
XMLLIB [319] > SVN: [320] F95 library for parsing XML code parameters

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last update: 2019-01-31 by g2dpc

5.20 Meetings

5.20.1 2010/09/13-17 ITM General Meeting in Lisbon

5.20.1.1 Posters

- *WebService Actor Generator* (ppt [321]), by B. Guillerminet
- *HPC2K - GRID and HPC Actor Generator* (ppt [322]), by B. Guillerminet et al.
- *Parallel I/O in Simulation Workflows* (ppt [323]), by A. Galonska et al.
- *Exp2ITM - a generic access to shot based data for European Tokamaks* (ppt [324]), by J. Signoret et al.
- *Integrated Simulation Editor* (ppt [325]), by J. Signoret et al.

[305] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf
[306] https://gforge6.eufus.eu/project/gub
[307] https://gforge6.eufus.eu/project/gub/wiki
[308] https://gforge6.eufus.eu/project/itmportal
[309] https://gforge6.eufus.eu/project/itmportal/scmsvn
[310] https://gforge6.eufus.eu/project/datastructure
[311] https://gforge6.eufus.eu/project/datastructure/scmsvn
[312] https://gforge6.eufus.eu/project/ual
[313] https://gforge6.eufus.eu/project/ual/scmsvn
[314] https://gforge6.eufus.eu/project/fc2k
[315] https://gforge6.eufus.eu/project/fc2k/scmsvn
[316] https://gforge6.eufus.eu/project/ise
[317] https://gforge6.eufus.eu/project/ise/wiki
[318] https://gforge6.eufus.eu/project/ise/scmsvn
[319] https://gforge6.eufus.eu/project/xmllib
[320] https://gforge6.eufus.eu/project/xmllib/scmsvn
[321] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
[322] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[323] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[324] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[325] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt

- *Feedback control Simulation under the ITM platform* (pdf [326]), by O. Barana et al.
- *Control Toolbox* (ppt [327]), by N. Signoret and G. Manduchi
- *The ITM-TF Simulation Catalogue* (ppt [328]), by F. Imbeaux et al.

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last update: 2011-02-10 by konz

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last update: 2010-11-23 by konz

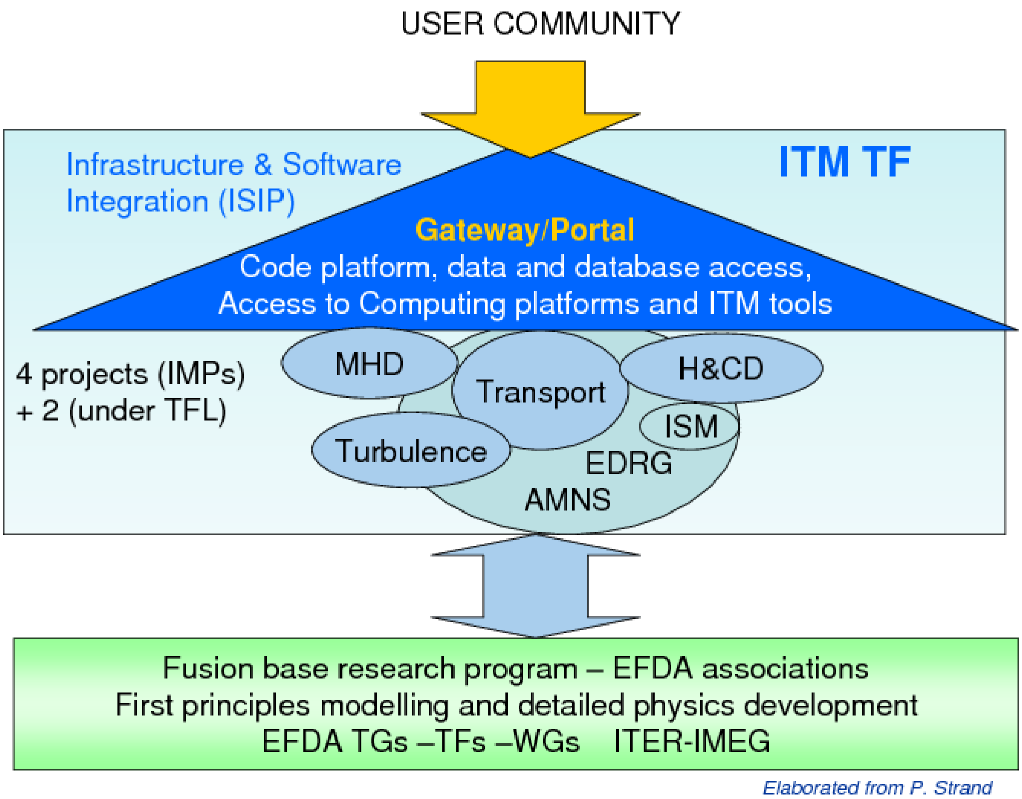
5.21 The Welcome ITM platform User Guide

5.21.1 Welcome!

Welcome to the Newcomer's guide to EFDA-ITM platform!

The Integrated Tokamak Modeling [329] is a project of European Fusion Development Agreement [330] with the aim to providing software instruments to forecast and interpret discharges from ITER [331] and from DEMO. Therefore it deals with making codes developed by the European fusion community interact, with promoting the developing of codes on issues not yet faced and with validating the codes themselves.

To this purpose it is organised in 4 Integrated Modeling Projects (IMP12: MHD, IMP3: Transport, IMP4: Turbulence, IMP5: Heating and Current Drive), one Infrastructure and Software Integration Project (ISIP, with the purpose of providing developing and data analysis tools specific for fusion, together with the connective tissue among different codes and with the support to ITM members) and 2 interdisciplinary projects: the Experimentalist and Diagnostician Resource Group (EDRG) and the Atomic, Molecular Nuclear and Surface (AMNS).



[326] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[327] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[328] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[329] https://portal.efda-itm.eu/portal/
[330] http://www.efda.org/
[331] http://www.iter.org/

Moreover, it disposes of a Linux cluster of 128 cores with a peak performance of 1 teraflops: Gateway [332], which can be used for the developing and testing of the codes, and which is provided with *ad hoc* tools of pre- and post- processing and of interconnection between codes. Gateway also hosts the ITM data base storage (100TB), the ITM web site and the ITM cooperative work portal [333]. For massive production it is possible to use part of the supercomputer with 8640 cores and a peak performance of 0.1 petaflop called HPC-FF [334].

Every year at the beginning of September the ITM members meet for the ITM General Meeting to make the point on the advance status of the projects, update about the projects different from their own and learn how to use the new ISIP tools. Here [335] it is possible to have a look to previous year meetings to gather an idea about ITM activities

As regards organisation, ITM presents a Task Force Leader with 2 deputy leaders, and a Project Leader with one or more deputy leader for every IMP and for ISIP. Moreover the Gateway User Board, composed with the TFL and the leader of every IMP as a representative of the IMP users, determines the policy of Gateway administration. The EFDA-ITM project is accountable to the EFDA steering committee and its CSU is Denis Kalupin.

Every researcher of a country associated to EURATOM [336] is encouraged to cooperate with these projects. To do this the first thing is to contact the Contact Person at your Research Unit (23) who will, among other things, provide you with the name(s) of the project leader(s) of the project(s) you are interested in. People outside EURATOM Association interested in joining the task-force need to contact the Task Force Leader. Their request will be considered on an individual basis. The participation is ruled by EFDA calls issued once every year and sent to HRU and Contact Persons. Next call will be in November 2010.

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last update: 2011-01-08 by marchett

5.22 The Newcomer's ITM platform User Guide

Welcome to the EFDA-ITM Project and thank you for choosing to cooperate!

This guide is intended for a new user to his/her first access to ITM platform and therefore provides the basic instructions for a code developer, which might also serve as reference for everyday use to the expert user. Special cases or instructions for curious users or for those who want to develop infrastructure tools can be found on the documents linked.

5.22.1 Getting Started

If you have not yet done it, please contact the ITM Contact Person at your Research Unit (23).

To get an **access to the ITM web Site** Intranet (Portal) [337], with news about every project, tool and code documentation, specific mail lists and the collaborative work instruments, ask a login and a password to your Project Leader (23).

To get an **access to Gateway** [338]**,** EFDA-ITM dedicated Linux cluster for code developing, download, fill and sign the Gateway User Agreement [339] and send it by fax to the Task Force Leader. [340] The GUA was written as a cooperation among the Gateway User Board [341] (composed by a leader from every project representing his/her users, determines the policy for Gateway administration), EURATOM legal office and the HRU's and protect the intellectual property of your work as well as it allows you to use software under license installed in Gateway (ITM policy still remains completely toward open source [342]). Without signing the GUA it is not possible to have access to Gateway and to most of information on these pages. The TFL will contact your representative inside GUB authorising him/her to give you a login and a password and he/she will communicate it to you by subscribing you to the **mail list of your project** (that makes no traffic: one mail every month on the average).

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[332] http://www.efda-itm.eu/
[333] https://portal.efda-itm.eu/portal/
[334] http://www.fz-juelich.de/jsc/juropa/configuration/
[335] http://itm2010.efda-itm.eu/index.php
[336] http://ec.europa.eu/research/energy/euratom/fusion/funding/index_en.htm
[337] https://portal.efda-itm.eu/portal/
[338] http://www.efda-itm.eu/
[339] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
[340] http://www.efda-itm.eu
[341] http://www.efda-itm.eu
[342] http://opensource.org/docs/osd

5.22.2 Let's work!

Having a look to the iter [343] a code must follow to finally become a part of the integrated tokamak modeling we can summarise the simplest activities you can do in ITM platform as:

- code porting and developing: for this you need to know the Gateway Development Environment (5.22.2.1)
- specific data visualisation and creation of a simulation -> beside the usual visualisation libraries, installed on Gateway, ISIP has developed the specific tool ISE (5.22.2.5)
- validation of a code against other codes and experimental data -> to correctly exchange data all the codes must have the same I/O structure and format -> Data Structure (5.22.2.2)
- exchanging data between a code and another -> again Data Structure (5.22.2.2)
- link codes to form a unique workflow -> kepler (5.22.2.3) and fc2k (5.22.2.4)
- code developing and maintenance with your colleagues maybe living elsewhere -> gforge (5.22.2.6) and svn (5.22.2.7)
- code preparation to be delivered to other users -> gforge (5.22.2.6)

5.22.2.1 How to use Gateway

Information about Gateway can be gather at the Gateway web site [344] where you can also download the Gateway User Guide [345].

You can access Gateway via ssh and sftp in the standard way.

You can enter it via NX from Nomachine [346], a remote desktop application which allows you to use features as graphical interfaces to applications (indispensable to user most of the ISIP tools) or graphical output from postprocessing software or multi terminals.... To do this follow this Euforia instructions [347], namely:

-get the NX client for your local OS from NX download page [348] and install it

-start NX Connection Wizard and follow the configuration steps

5.22.2.2 Data Structure

5.22.2.3 Kepler

5.22.2.4 FC2K

5.22.2.5 ISE

5.22.2.6 gforge

5.22.2.7 SVN

5.22.3 In case of trouble...

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last update: 2012-07-18 by coster

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last update: 2019-01-31 by g2dpc

6 IMP12

6.1 IMP12 - Equilibrium, MHD, and Disruptions

6.1.1 Scientific Rationale and Main Objectives of the Task

The goal of the IMP12 activity is to provide the ITM-TF with a comprehensive set of **equilibrium, linear stability, and non-linear MHD modelling tools** as well as the tools for a consistent free boundary equilibrium

[343] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM
[344] http://www.efda-itm.eu/
[345] http://www.efda-itm.eu/docs/docs5.php
[346] http://www.nomachine.com/index.php
[347] http://scilla.man.poznan.pl:8080/confluence/display/euforia/NX+setup
[348] http://www.nomachine.com/download.php

evolution with application to the study of plasma disruptions. The project aims at providing ITER relevant modelling capabilities covering essential areas in an MHD simulation chain, starting from equilibrium reconstruction and free boundary evolution under feedback control via linear and non-linear MHD stability to non-linear MHD stability and plasma disruptions.

6.1.2 Scope and Long Term Perspective

The mature consolidation of a substantial part of the tools developped by IMP1 (equilibrium reconstruction and linear MHD stability) prompts for continued maintenance and integration.
Because of the synergy between equilibrium/linear stability and non-linear MHD modelling integration, IMP1 and IMP2 have been merged as off 2010.
Adopting a unifying strategy, the project therefore now consolidates the coverage of essential MHD numerical tools. Validation (29) of the *full chain of equilibrium reconstruction* and *linear stability* codes has started in 2009 and will proceed in collaboration with the MHD Topical Group, addressing relevant experimental scenarios (disruptive limits, edge stability limits,...). Collaborations with additional experiments is planned.
Extension of the equilibrium and linear stability codes as well as the data structures to include *plasma flow* and *3D effects* will consolidate the scope of the present tools.
Validation of the existing modules for modelling of a *free boundary equilibrium on experiments* and *integration with the ETS* , mediated by *feedback control schemes* , will enhance the whole device modelling capabilities of ITM tools.
Interfacing with *non-linear stability modules* dedicated to *sawtooth, NTM, ELMs, error fields* , and *beta limit pertinent modules* , such as the *RWM* will be facilitated.
Alongside such efforts, both *2D and 3D MHD non-linear stability modules* will be integrated in the platform, with privileged application to further development for *VDE/disruption* capability, including work towards a ”real time” disruption predictor for ideal MHD limits.

6.1.3 Project Leadership

Edmondo Giovannozzi - Project Leader - edmondo.giovannozzi@enea.it

Dmitriy Yadykin - Deputy Project Leader - dimitriy@chalmers.se

6.2 Tasks

Until 2012, the ITM-TF defines its projects in terms of tasks with the associations and outreach collaborations. The official tasks are agreed upon with the associations in form of task agreements.

6.2.1 Tasks in 2010

The list of IMP12 related tasks for 2010 is given below:

6.2.1.1 WP10-ITM-IMP12-ACT1: Maintenance of Equilibrium and linear MHD Stability

Table 964: Members

Name	Association	e-mail
Christian Konz	IPP	cjk@ipp.mpg.de
Blaise Faugeras	CEA	Blaise.Faugeras@unice.fr
Olivier Sauter	Swiss Confederation	olivier.sauter@epfl.ch
Sergei Medvedev	Swiss Confederation	medvedev@crppsun.epfl.ch

6.2.1.2 WP10-ITM-IMP12-ACT2: Free Boundary Equilibrium Codes and Feedback Control

Table 965: Members

Name	Association	e-mail
Massimiliano Mattei	ENEA Frascati	massimiliano.mattei@unina2.it
Raffaele Albanese	ENEA Frascati	raffaele.albanese@unina.it
Giuseppe Calabrò	ENEA Frascati	calabro@frascati.enea.it
Giuseppe Ramogida	ENEA Frascati	giuseppe.ramogida@enea.it
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Table 965: Members

Name	Association	e-mail
Carmelo Labate	ENEA Frascati	carmelenzo.labate@unirc.it
Katia Calabrò	ENEA Frascati	caterina.calabro@unirc.it
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Eric Nardon	CEA	eric.nardon@cea.fr
Patrick Hertout	CEA	patrick.hertout@cea.fr
Jacques Blum	CEA	jblum@math.unice.fr
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Minutes of the meeting on control in March 2010 [349]
Gantt Chart [350]

6.2.1.3 WP10-ITM-IMP12-ACT3: Development of Equilibrium Reconstruction Codes

Table 966: Members

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6.2.1.4 WP10-ITM-IMP12-ACT4: Flow Extension of Equilibrium and MHD Stability Codes

Table 967: Members

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6.2.1.5 WP10-ITM-IMP12-ACT5: Validation of the Equilibrium Reconstruction Codes in Kepler

Table 968: Members

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6.2.1.6 WP10-ITM-IMP12-ACT6: Definition of 3D Data Structures for the Equilibrium and Implementation in 3D Equilibrium Codes

Table 969: Members

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6.2.1.7 WP10-ITM-IMP12-ACT7: Sawtooth Crash Module

[349] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf
[350] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf

Table 970: Members

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6.2.1.8 WP10-ITM-IMP12-ACT8: ELM Module

Table 971: Members

Name	Association	e-mail

6.2.1.9 WP10-ITM-IMP12-ACT9: Resistive Wall Modes

Table 972: Members

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6.2.1.10 WP10-ITM-IMP12-ACT10: NTM Module

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6.2.1.11 WP10-ITM-IMP12-ACT11: 3D MHD Code

Table 974: Members

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6.2.1.12 WP10-ITM-IMP12-ACT12: Error Field Module

Table 975: Members

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6.2.1.13 WP10-ITM-IMP12-ACT13: 2D MHD Code

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6.2.1.14 WP10-ITM-IMP12-ACT14: Disruption Workbench

Table 977: Members

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6.2.1.15 WP10-ITM-IMP12-ACT15: Numerical Tools

Table 978: Members

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last update: 2011-05-13 by konz

6.2.2 Tasks in 2011

The list of IMP12 related tasks for 2011 is given below:

6.2.2.1 WP11-ITM-IMP12-ACT1: Integration, support and maintenance

Description

This activity concerns all the IMP12 codes, modules or packages at a mature stage. As a minimum, a working Kepler actor (or a suite of Kepler actors) must have been made available during WP10, i.e. corresponding to Phase III (K) of the release cycle (see Appendix A).
Scope of this activity is integration of IMP12 modules and support for code integration in selected workflows, in conjunction with other IMPs. The activity also covers continued maintenance of mature IMP12 codes.
As a guideline, it is foreseen that IMP12 codes under this activity will participate in the construction of the following workflows:

- A workflow coupling ETS, a fixed boundary equilibrium code, and physics modules from several IMPs, aimed at plasma core simulations.
- A prototype workflow coupling the ETS with a free boundary equilibrium code.
- A prototype workflow coupling a free boundary equilibrium code with a feedback controller.

Participants under priority support are expected to provide the code and user documentation, as an integral part of the code release.

The deliverables for 2011 are:

- integration of mature codes into workflows, especially into ETS workflow

- code documentation (phase IV(N))
- physics description of code (phase IV (O))

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6.2.2.2 WP11-ITM-IMP12-ACT2: Adaptation of IMP12 modules and standalone packages

Description

This activity concerns the adaptation up to the stage of tested Kepler actors (phase III(K) of the release cycle of all the IMP12 codes, modules or packages still at a development stage. In most cases, it involves continuation of WP10 work. It may include newly proposed work matching the TF remit.

The deliverables for 2011 are:

- porting of code to the ITM Gateway, test runs and report
- adaptation of code to ITM standard, with use of relevant CPOs, in standalone form; test runs and report
- generation of Kepler actor of code; test on the ITM platform and report

Table 980: Members

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6.2.2.3 WP11-ITM-IMP12-ACT3: Verification and validation of IMP12 codes

Description

Verification and validation (V&V) is an essential part of the ITM TF code release cycle. This activity targets IMP12 codes qualifying for Phase III (K), to carry out V&V on the ITM platform, employing Kepler workflows. This is a cross-project activity targeting code developers as well as experimentalists to cooperate in the validation work.
The following are minimal objectives for WP11, although contribution to code validation is sought for all IMP12 codes qualifying for Phase III (K).

- Continued validation of the EQUAL equilibrium reconstruction code on JET data.
- Verification of equilibrium and MHD stability codes by code-code comparison within the equilibrium and stability chain and assessment of code inter-operability

The deliverables for 2011 are:

- Validation of code EQUAL on JET data. Report on validation conforming to the ITM validation procedure.
- cross verification of codes belonging to the equilibrium and MHD stability chain
- Report on benchmarking exercises: cross verification of the triplet of high resolution equilibrium codes (HELENA, CHEASE, CAXE), and cross verification of the (ILSA, KINX) pair of stability codes, by code replacement in the Kepler equilibrium and stability chain.

Table 981: Members

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6.2.2.4 WP11-ITM-IMP12-ACT4: Exploitation of mature workflows: from equilibrium reconstruction to MHD stability analysis

Description

The aim of this activity is the exploitation of the extended chain of equilibrium reconstruction to MHD stability analysis on data from selected experiments for which machine descriptions, data mappings and a suitable shot range is made available (EDRG-ACT1,2).
Specifically, the TF seeks a partnership with one or more Associations (providing suitable manpower) to adapt, when necessary, and to exploit the equilibrium reconstruction and stability chain to carry out an extensive MHD analysis of a significant set of shots, of high relevance for the Association work programme.

The deliverables for 2011 are:

- Equilibrium reconstruction, MHD chain stability chain and public ITM database of relevant shots of device.
- MHD analysis of the selected data base. Report on study.

Table 982: Members

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6.2.2.5 Work Breakdown

Work Description	*Associate*	*Manpower Baseline Support (ppy)*	*Manpower Priority Support (ppy)*	*Hardware, Cons., Other Expenditure Priority Support (kEuros)*
WP11-ITM-IMP12-ACT1-01/CCFE	CCFE	0.01	0.00	0.00
WP11-ITM-IMP12-ACT1-01/CEA	CEA	0.00	1.50	0.00
WP11-ITM-IMP12-ACT1-01/CEA/BS	CEA	0.30	0.00	0.00
WP11-ITM-IMP12-ACT1-01/CIEMAT/BS	CIEMAT	0.50	0.00	0.00
WP11-ITM-IMP12-ACT1-01/ENEA_CNR	ENEA_CNR	0.00	0.20	0.00
WP11-ITM-IMP12-ACT1-01/IPP	IPP	0.10	0.00	0.00
WP11-ITM-IMP12-ACT1-01/Swiss Confederation	Swiss Confederation	0.00	0.15	0.00
WP11-ITM-IMP12-ACT1-02/ENEA_CNR	ENEA_CNR	0.18	0.00	0.00
WP11-ITM-IMP12-ACT1-02/IPP	IPP	0.75	0.00	0.00
WP11-ITM-IMP12-ACT1-03/IPP	IPP	0.00	0.10	0.00
WP11-ITM-IMP12-ACT1-03/IPP/BS	IPP	0.10	0.00	0.00
WP11-ITM-IMP12-ACT2-01/CCFE	CCFE	0.10	0.00	0.00
WP11-ITM-IMP12-ACT2-01/CEA	CEA	0.70	0.00	0.00
WP11-ITM-IMP12-ACT2-01/ENEA_Frascati	ENEA_Frascati	0.50	0.00	0.00
WP11-ITM-IMP12-ACT2-01/ENEA_RFX	ENEA_RFX	0.20	0.00	0.00
WP11-ITM-IMP12-ACT2-01/Hellenic Republic/BS	Hellenic Republic	1.30	0.00	0.00
WP11-ITM-IMP12-ACT2-01/IPP	IPP	0.00	0.25	0.00
WP11-ITM-IMP12-ACT2-01/IPP.CR	IPP.CR	0.10	0.00	0.00
WP11-ITM-IMP12-ACT2-01/IPP/BS	IPP	0.25	0.00	0.00
WP11-ITM-IMP12-ACT2-01/MEdC	MEdC	1.00	0.00	0.00
WP11-ITM-IMP12-ACT2-01/VR	VR	0.12	0.00	0.00
WP11-ITM-IMP12-ACT2-02/ENEA_RFX	ENEA_RFX	0.10	0.00	0.00
WP11-ITM-IMP12-ACT2-02/IPP	IPP	0.00	0.10	0.00
WP11-ITM-IMP12-ACT2-02/IPP.CR	IPP.CR	0.10	0.00	0.00
WP11-ITM-IMP12-ACT2-03/ENEA_RFX	ENEA_RFX	0.50	0.00	0.00
WP11-ITM-IMP12-ACT3-01/CEA	CEA	0.00	0.20	0.00
WP11-ITM-IMP12-ACT3-01/IPP	IPP	0.00	0.25	0.00

Work Description	*Associate*	*Manpower Baseline Support (ppy)*	*Manpower Priority Support (ppy)*	*Hardware, Cons., Other Expenditure Priority Support (kEuros)*
WP11-ITM-IMP12-ACT3-01/Swiss Confederation/BS	Swiss Confederation	0.10	0.00	0.00
WP11-ITM-IMP12-ACT3-01/VR	VR	0.00	0.12	0.00
WP11-ITM-IMP12-ACT4-01/CEA	CEA	0.00	0.10	0.00
WP11-ITM-IMP12-ACT4-01/ENEA_CNR	ENEA_CNR	0.00	0.10	0.00
WP11-ITM-IMP12-ACT4-01/IPP	IPP	0.00	0.24	0.00
Total		7.01	3.31	0.00

last update: 2011-05-16 by konz

last update: 2011-05-16 by konz

6.3 List of IMP12 codes

The following list lists the codes and modules which are part of ITM-TF tasks and their responsible officers. A link takes you to the status page for each code.

A number of IMP12 codes have projects on gforge [351].

Update the code status here [352].

6.3.1 Free boundary equilibrium codes

CEDRES++, S. Brémond, CEA (code status [353], gforge [354])

CLISTE, P. Mc Carthy, DCU (code status [355])

CREATE-NL, M. Mattei, ENEA Frascati (code status [356])

EFIT++, L. Appel, CCFE (code status [357])

EQUAL, W. Zwingmann, EC (code status [358], gforge [359], actor (6.4.1.1.1))

EQUINOX, B. Faugeras, CEA (code status [360], gforge [361])

FIXFREE, E. Giovannozzi, ENEA Frascati (code status [362])

6.3.2 Fixed boundary equilibrium codes

CAXE, S. Medvedev, EPFL (code status [363])

CHEASE, O. Sauter, EPFL (code status [364], gforge [365])

[351] https://gforge6.eufus.eu/project/
[352] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM
[353] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=CEDRES%2B%2B&SUBMIT=Submit+Query
[354] https://gforge6.eufus.eu/project/cedres/
[355] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=CLISTE&SUBMIT=Submit+Query
[356] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=CREATE_NL&SUBMIT=Submit+Query
[357] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=EFIT%2B%2B&SUBMIT=Submit+Query
[358] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=EQUAL&SUBMIT=Submit+Query
[359] https://gforge6.eufus.eu/project/equal/
[360] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=equinox&SUBMIT=Submit+Query
[361] https://gforge6.eufus.eu/project/equinox/
[362] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=FixFree&SUBMIT=Submit+Query
[363] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=CAXE&SUBMIT=Submit+Query
[364] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=CHEASE&SUBMIT=Submit+Query
[365] https://gforge6.eufus.eu/project/chease/

HELENA, C. Konz, IPP (code status [366], actor (6.4.1.2.1))

6.3.3 Linear MHD stability codes

KINX, S. Medvedev, EPFL (code status [367])
ILSA, C. Konz, IPP (code status [368], actor (6.4.1.3.1))
MARS, G. Vlad, ENEA Frascati (code status [369], gforge [370])
MARS-F, D. Yadykin, Chalmers (code status [371], gforge [372])

6.3.4 Equilibrium codes with flow

FLOW, R. Paccagnella, ENEA RFX (code status [373])

6.3.5 3D Equilibrium Codes

6.3.6 Sawtooth Crash Modules

SAWTEETH, O. Sauter, CRPP (code status [374], gforge [375])

6.3.7 ELM Modules

6.3.8 RWM Modules

6.3.9 NTM Modules

6.3.10 3D MHD Codes

JOREK, G. Huysmans, CEA (code status [376])

6.3.11 Error Field Modules

6.3.12 2D MHD Codes

6.3.13 Disruption Modules

6.3.14 Numerical Tools

PROGEN, C. Konz, IPP (code status [377], actor (6.4.1.4.1))
JALPHA, C. Konz, IPP (code status [378], actor (6.4.1.4.2))

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last update: 2019-01-31 by g2dpc

6.4 Kepler

6.4.1 Actors

IMP12 has provided a number of Kepler (29) actors (29) for testing and use on the ITM Gateway (29) . The list is constantly expanding and will regularly be updated.

[366] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=HELENA&SUBMIT=Submit+Query
[367] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=KINX&SUBMIT=Submit+Query
[368] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=ILSA&SUBMIT=Submit+Query
[369] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=MARS&SUBMIT=Submit+Query
[370] https://gforge6.eufus.eu/project/marsgw/
[371] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=MARS-F&SUBMIT=Submit+Query
[372] https://gforge6.eufus.eu/project/marsf/
[373] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=FLOW&SUBMIT=Submit+Query
[374] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=SAWTEETH&SUBMIT=Submit+Query
[375] https://gforge6.eufus.eu/project/sawteeth/
[376] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=JOREK&SUBMIT=Submit+Query
[377] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=PROGEN&SUBMIT=Submit+Query
[378] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=JALPHA&SUBMIT=Submit+Query

The actors can be found in the KeplerActors (5.16.1.2.2)project under Gforge.

IMP12's actors are hosted in the following categories:

```
- fixed_boundary_equilibrium
- free_boundary_equilibrium
- linear_MHD
- NTM
- numerical_tools
- database_tools
- RWM
- sawtooth
```

6.4.1.1 Free Boundary Equilibrium Reconstruction

6.4.1.1.1 EQUALslice

The EQUALslice actor reads experimental signals from the data base and calculates a free boundary equilibrium for the given time slice.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	magdiag pfsystems toroidfield limiter ironmodel msediag interfdiag polardiag coreprof	equilibrium	time iteration

The parameter time determines the time point at which the experimental signals will be sliced. The parameter iteration gives the number of iterations.

6.4.1.2 High Resolution Fixed Boundary Equilibrium Reconstruction

6.4.1.2.1 HELENA

The HELENA actor calculates a fixed boundary high resolution equilibrium in straight field line coordinates starting from plasma profiles like p', FF', p, $< j_{\text{tor}} >$, the corresponding radial points like Ψ , ρ_{tor} , ρ_{vol} and the boundary curve for a fixed boundary equilibrium calculation.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	equilibrium	path

The parameter path is optional and allows you to redirect verbose output to the specific directory.

6.4.1.3 Linear MHD Stability Analysis

6.4.1.3.1 ILSA

The ILSA actor performs a linear MHD stability for a fixed boundary high resolution equilibrium in straight fild line coordinates.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	mhd	path

The parameter path is optional and allows you to redirect verbose output to the specific directory.

6.4.1.4 Numerical Tools

6.4.1.4.1 PROGEN

The PROGEN actor either reads plasma profiles like p', FF', p, $< j_{tor} >$, the corresponding radial points like Ψ , ρ_{tor} , ρ_{vol} and the boundary curve for a fixed boundary equilibrium calculation from files or constructs them from analytic formulae.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium (empty)	equilibrium	active path_tag path

The parameter active allows you to deactivate the PROGEN actor altogether if set to 0. The parameter path is optional and allows you to redirect verbose output to the specific directory. path_tag should remain empty.

6.4.1.4.2 JALPHA

The JALPHA actor takes the pressure and current density profile from an incoming equilibrium CPO (29) together with the radial positions ρ_{vol} and modifies them by scaling the edge pressure gradient and edge current density. Doing so, it maintains the total plasma energy W_{MHD} and the total plasma current I_p . It is designed to generate profiles for input to the HELENA actors for a j- α study. Recent extensions allow to scale the width of the pedestal as well as the normalized plasma beta.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	equilibrium	path scan_p scan_j

The parameter path is optional and allows you to redirect verbose output to the specific directory. The parameter scan_p allows you to specify the scaling factor for pedestal height, pedestal width, or plasma beta modifications for the pressure profile. The parameter scan_j allows you to specify the scaling factor for pedestal height and width for the flux surface averaged current density profile.

6.4.1.5 Database Tools

6.4.1.5.1 EQUILIBRIUM2UAL

The EQUILIBRIUM2UAL actor reads an equilibrium CPO (29) from the specified standardized ASCII file and feeds it to the output port. Currently, the ASCII file is supposed to contain a single time slice as a scalar.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium (empty)	equilibrium	path

The path contains the path to the ASCII file including the name of the file.

6.4.1.5.2 MHD2UAL

The MHD2UAL actor reads an mhd CPO (29) from the specified standardized ASCII file and feeds it to the output port. Currently, the ASCII file is supposed to contain a single time slice as a 1D vector.

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium (empty)	mhd	path

The path contains the path to the ASCII file including the name of the file.

6.4.1.6 Fill Tables

The **fill tables** in this section provide a fast way to check which fields in the output CPOs (29) of the Kepler (29) actors (29) provided by IMP12 are filled and which should be filled.

The color coding is as follows:

- gray - data structure or field not filled

- lightgreen - data structure partially filled
- purple - data structure or field filled
- red - data structure or field not filled but should be (partially) filled

The numbers in parentheses indicate the number of substructures. For the entire CPO, the number in parentheses signals the total number of fields that can be filled in the CPO.

The data structure is broken down in blocks for the substructures directly below the CPO level (level 1 structures). They are evenly distributed in two columns. No special meaning is attached to this distribution.

The list is constantly expanding and will regularly be updated. Currently, only fill tables for the most recent versions of the actors are specified.

The actors can be found in the KeplerActors (5.16.1.2.2)project under Gforge.

IMP12's actors are hosted in the following categories:

```
- fixed_boundary_equilibrium
- free_boundary_equilibrium
- linear_MHD
- NTM
- numerical_tools
- RWM
- sawtooth
```

6.4.1.6.1 Free Boundary Equilibrium Reconstruction

6.4.1.6.2 EQUALslice

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	magdiag pfsystems toroidfield limiter ironmodel msediag interfdiag polardiag coreprof	equilibrium	time iteration

fill table not yet available

6.4.1.6.3 High Resolution Fixed Boundary Equilibrium Reconstruction

At release status all high resolution fixed boundary equilibrium modules shall return an equilibrium CPO which fulfills the targeted fill status given below. Modules building on the equilibrium output from a fixed boundary equilibrium module may assume the existence of data in all filled fields. Caution need be applied though to ensure that the equilibrium geometric data are given in the desired coordinate system. Possibly, coordinate transformations need to be applied to the output CPO before feeding it to the next module.

6.4.1.6.4 Targeted fill status: equilibrium CPO

Table 992: equilibrium (299)

-> datainfo (7)	-> eqconstraint (14)
|— dataprovider (0)	|— bpol (8)
|— putdate (0)	| |— measured (0)
|— source (0)	| |— source (0)
|— comment (0)	| |— time (0)
|— isref (0)	| |— exact (0)
|— whatref (5)	| |— weight (0)

| |— user (0)
| |— machine (0)
| |— shot (0)
| |— run (0)
| |— occurrence (0)
|— putinfo (4)
| |— putmethod (0)
| |— putaccess (0)
| |— putlocation (0)
| |— rights (0)
-> eqgeometry (14)
|— source (0)
|— boundarytype (0)
|— boundary (3)
| |— r (0)
| |— z (0)
| |— npoints (0)
|— geom_axis (2)
| |— r (0)
| |— z (0)
|— a_minor (0)
|— elongation (0)
|— tria_upper (0)
|— tria_lower (0)
|— xpts (2)
| |— r (0)
| |— z (0)
|— left_low_st (2)
| |— r (0)
| |— z (0)
|— right_low_st (2)
| |— r (0)
| |— z (0)
|— left_up_st (2)
| |— r (0)
| |— z (0)
|— right_up_st (2)
| |— r (0)
| |— z (0)
|— active_limit (2)
| |— r (0)
| |— z (0)
-> flush (4)
|— datainfo (7)
| |— dataprovider (0)
| |— putdate (0)
| |— source (0)
| |— comment (0)
| |— isref (0)
| |— whatref (5)
| | |— user (0)
| | |— machine (0)
| | |— shot (0)
| | |— run (0)
| | |— occurrence (0)
| |— putinfo (4)
| | |— putmethod (0)
| | |— putaccess (0)
| | |— putlocation (0)
| | |— rights (0)
|— position (2)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— bvac_r (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— faraday (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— flux (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— i_plasma (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— isoflux (6)
| |— position (2)
| | |— r (0)
| | |— z (0)
| |— source (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— jsurf (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— magnet_iron (2)
| |— mr (8)
| | |— measured (0)
| | |— source (0)

| |— r (0)
| |— z (0)
|— coef (0)
|— codeparam (5)
| |— codename (0)
| |— codeversion (0)
| |— parameters (0)
| |— output_diag (0)
| |— output_flag (0)
-> global_param (14)
|— beta_pol (0)
|— beta_tor (0)
|— beta_normal (0)
|— i_plasma (0)
|— li (0)
|— volume (0)
|— area (0)
|— psi_ax (0)
|— psi_bound (0)
|— mag_axis (3)
| |— position (2)
| | |— r (0)
| | |— z (0)
| |— bphi (0)
| |— q (0)
|— q_95 (0)
|— q_min (0)
|— toroid_field (2)
| |— r0 (0)
| |— b0 (0)
|— w_mhd (0)
-> profiles_1d (33)
|— psi (0)
|— phi (0)
|— pressure (0)
|— F_dia (0)
|— pprime (0)
|— ffprime (0)
|— jphi (0)
|— jparallel (0)
|— q (0)
|— r_inboard (0)
|— r_outboard (0)
|— rho_tor (0)
|— rho_vol (0)
|— beta_pol (0)
|— li (0)
|— elongation (0)
|— tria_upper (0)
|— tria_lower (0)
|— volume (0)
|— vprime (0)
|— area (0)
|— aprime (0)
|— surface (0)
|— ftrap (0)
|— gm1 (0)
|— gm2 (0)
|— gm3 (0)
|— gm4 (0)
|— gm5 (0)

| | |— time (0)
| | |— exact (0)
| | |— weight (0)
| | |— sigma (0)
| | |— calculated (0)
| | |— chi2 (0)
| |— mz (8)
| | |— measured (0)
| | |— source (0)
| | |— time (0)
| | |— exact (0)
| | |— weight (0)
| | |— sigma (0)
| | |— calculated (0)
| | |— chi2 (0)
|— mse (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— ne (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— pfcurrent (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— pressure (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— q (8)
| |— qvalue (0)
| |— position (2)
| | |— r (0)
| | |— z (0)
| |— source (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)

|— gm6 (0) |— gm7 (0) |— gm8 (0) |— gm9 (0) -> profiles_2d (9) |— grid_type (0) |— grid (3) | |— dim1 (0) | |— dim2 (0) | |— connect (0) |— psi_grid (0) |— jphi_grid (0) |— jpar_grid (0) |— br (0) |— bz (0) |— bphi (0) |— position (2) | |— r (0) | |— z (0) -> time (0) -> codeparam (5) |— codename (0) |— codeversion (0) |— parameters (0) |— output_diag (0) |— output_flag (0)	| |— chi2 (0) |— xpts (6) | |— position (2) | | |— r (0) | | |— z (0) | |— source (0) | |— weight (0) | |— sigma (0) | |— calculated (0) | |— chi2 (0) -> coord_sys (10) |— grid_type (0) |— grid (2) | |— dim1 (0) | |— dim2 (0) |— jacobian (0) |— g_11 (0) |— g_12 (0) |— g_13 (0) |— g_22 (0) |— g_23 (0) |— g_33 (0) |— position (2) | |— r (0) | |— z (0)

last update: 2011-02-15 by konz

6.4.1.6.5 HELENA

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	equilibrium (??)	path

6.4.1.6.6 Actual fill status: equilibrium CPO

Table 994: equilibrium (299)

-> datainfo (7) |— dataprovider (0) |— putdate (0) |— source (0) |— comment (0) |— isref (0) |— whatref (5) | |— user (0) | |— machine (0) | |— shot (0) | |— run (0) | |— occurrence (0) |— putinfo (4) | |— putmethod (0) | |— putaccess (0) | |— putlocation (0) | |— rights (0) -> eqgeometry (14) |— source (0) |— boundarytype (0) |— boundary (3) | |— r (0)	-> eqconstraint (14) |— bpol (8) | |— measured (0) | |— source (0) | |— time (0) | |— exact (0) | |— weight (0) | |— sigma (0) | |— calculated (0) | |— chi2 (0) |— bvac_r (8) | |— measured (0) | |— source (0) | |— time (0) | |— exact (0) | |— weight (0) | |— sigma (0) | |— calculated (0) | |— chi2 (0) |— faraday (8) | |— measured (0) | |— source (0)

| | |— z (0)
| | |— npoints (0)
| |— geom_axis (2)
| | |— r (0)
| | |— z (0)
| |— a_minor (0)
| |— elongation (0)
| |— tria_upper (0)
| |— tria_lower (0)
| |— xpts (2)
| | |— r (0)
| | |— z (0)
| |— left_low_st (2)
| | |— r (0)
| | |— z (0)
| |— right_low_st (2)
| | |— r (0)
| | |— z (0)
| |— left_up_st (2)
| | |— r (0)
| | |— z (0)
| |— right_up_st (2)
| | |— r (0)
| | |— z (0)
| |— active_limit (2)
| | |— r (0)
| | |— z (0)
-> flush (4)
|— datainfo (7)
| |— dataprovider (0)
| |— putdate (0)
| |— source (0)
| |— comment (0)
| |— isref (0)
| |— whatref (5)
| | |— user (0)
| | |— machine (0)
| | |— shot (0)
| | |— run (0)
| | |— occurrence (0)
| |— putinfo (4)
| | |— putmethod (0)
| | |— putaccess (0)
| | |— putlocation (0)
| | |— rights (0)
|— position (2)
| |— r (0)
| |— z (0)
|— coef (0)
|— codeparam (5)
| |— codename (0)
| |— codeversion (0)
| |— parameters (0)
| |— output_diag (0)
| |— output_flag (0)
-> global_param (14)
|— beta_pol (0)
|— beta_tor (0)
|— beta_normal (0)
|— i_plasma (0)
|— li (0)

| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— flux (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— i_plasma (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— isoflux (6)
| |— position (2)
| | |— r (0)
| | |— z (0)
| |— source (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— jsurf (8)
| |— measured (0)
| |— source (0)
| |— time (0)
| |— exact (0)
| |— weight (0)
| |— sigma (0)
| |— calculated (0)
| |— chi2 (0)
|— magnet_iron (2)
| |— mr (8)
| | |— measured (0)
| | |— source (0)
| | |— time (0)
| | |— exact (0)
| | |— weight (0)
| | |— sigma (0)
| | |— calculated (0)
| | |— chi2 (0)
| |— mz (8)
| | |— measured (0)
| | |— source (0)
| | |— time (0)
| | |— exact (0)
| | |— weight (0)
| | |— sigma (0)
| | |— calculated (0)
| | |— chi2 (0)

```
      |— volume (0)
      |— area (0)
      |— psi_ax (0)
      |— psi_bound (0)
      |— mag_axis (3)
      |     |— position (2)
      |     |     |— r (0)
      |     |     |— z (0)
      |     |— bphi (0)
      |     |— q (0)
      |— q_95 (0)
      |— q_min (0)
      |— toroid_field (2)
      |     |— r0 (0)
      |     |— b0 (0)
      |— w_mhd (0)
-> profiles_1d (33)
      |— psi (0)
      |— phi (0)
      |— pressure (0)
      |— F_dia (0)
      |— pprime (0)
      |— ffprime (0)
      |— jphi (0)
      |— jparallel (0)
      |— q (0)
      |— r_inboard (0)
      |— r_outboard (0)
      |— rho_tor (0)
      |— rho_vol (0)
      |— beta_pol (0)
      |— li (0)
      |— elongation (0)
      |— tria_upper (0)
      |— tria_lower (0)
      |— volume (0)
      |— vprime (0)
      |— area (0)
      |— aprime (0)
      |— surface (0)
      |— ftrap (0)
      |— gm1 (0)
      |— gm2 (0)
      |— gm3 (0)
      |— gm4 (0)
      |— gm5 (0)
      |— gm6 (0)
      |— gm7 (0)
      |— gm8 (0)
      |— gm9 (0)
-> profiles_2d (9)
      |— grid_type (0)
      |— grid (3)
      |     |— dim1 (0)
      |     |— dim2 (0)
      |     |— connect (0)
      |— psi_grid (0)
      |— jphi_grid (0)
      |— jpar_grid (0)
      |— br (0)
      |— bz (0)
      |— mse (8)
      |     |— measured (0)
      |     |— source (0)
      |     |— time (0)
      |     |— exact (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
      |— ne (8)
      |     |— measured (0)
      |     |— source (0)
      |     |— time (0)
      |     |— exact (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
      |— pfcurrent (8)
      |     |— measured (0)
      |     |— source (0)
      |     |— time (0)
      |     |— exact (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
      |— pressure (8)
      |     |— measured (0)
      |     |— source (0)
      |     |— time (0)
      |     |— exact (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
      |— q (8)
      |     |— qvalue (0)
      |     |— position (2)
      |     |     |— r (0)
      |     |     |— z (0)
      |     |— source (0)
      |     |— exact (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
      |— xpts (6)
      |     |— position (2)
      |     |     |— r (0)
      |     |     |— z (0)
      |     |— source (0)
      |     |— weight (0)
      |     |— sigma (0)
      |     |— calculated (0)
      |     |— chi2 (0)
-> coord_sys (10)
      |— grid_type (0)
      |— grid (2)
      |     |— dim1 (0)
      |     |— dim2 (0)
```

|— bphi (0)	|— jacobian (0)
|— position (2)	|— g_11 (0)
| |— r (0)	|— g_12 (0)
| |— z (0)	|— g_13 (0)
-> time (0)	|— g_22 (0)
-> codeparam (5)	|— g_23 (0)
|— codename (0)	|— g_33 (0)
|— codeversion (0)	|— position (2)
|— parameters (0)	| |— r (0)
|— output_diag (0)	| |— z (0)
|— output_flag (0)	

last update: 2011-02-15 by konz

6.4.1.6.7 Linear MHD Stability Analysis

At release status all linear MHD stability modules shall return an mhd CPO which fulfills the targeted fill status given below. Modules building on the mhd output from a linear MHD stability module may assume the existence of data in all filled fields.

6.4.1.6.8 Targeted fill status: mhd CPO

Table 995: mhd (21)

-> datainfo (7)	-> n (0)
|— dataprovider (0)	-> m (0)
|— putdate (0)	-> psi (0)
|— source (0)	-> frequency (0)
|— comment (0)	-> growthrate (0)
|— isref (0)	-> disp_perp (0)
|— whatref (5)	-> disp_par (0)
| |— user (0)	-> tau_alfven (0)
| |— machine (0)	-> tau_resistive (0)
| |— shot (0)	-> time (0)
| |— run (0)	-> codeparam (5)
| |— occurrence (0)	|— codename (0)
|— putinfo (4)	|— codeversion (0)
| |— putmethod (0)	|— parameters (0)
| |— putaccess (0)	|— output_diag (0)
| |— putlocation (0)	|— output_flag (0)
| |— rights (0)	

last update: 2011-02-15 by konz

6.4.1.6.9 ILSA

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	mhd	path

6.4.1.6.10 Actual fill status: mhd CPO

Table 997: mhd (21)

-> datainfo (7)	-> n (0)
|— dataprovider (0)	-> m (0)
|— putdate (0)	-> psi (0)
|— source (0)	-> frequency (0)
|— comment (0)	-> growthrate (0)

|— isref (0)	-> disp_perp (0)
|— whatref (5)	-> disp_par (0)
| |— user (0)	-> tau_alfven (0)
| |— machine (0)	-> tau_resistive (0)
| |— shot (0)	-> time (0)
| |— run (0)	-> codeparam (5)
| |— occurrence (0)	|— codename (0)
|— putinfo (4)	|— codeversion (0)
| |— putmethod (0)	|— parameters (0)
| |— putaccess (0)	|— output_diag (0)
| |— putlocation (0)	|— output_flag (0)
| |— rights (0)	

last update: 2011-02-15 by konz

6.4.1.6.11 Numerical Tools

6.4.1.6.12 PROGEN

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium (empty)	equilibrium	active path_tag path

fill table not yet available

6.4.1.6.13 JALPHA

Type	Input CPOs	Output CPOs	Kepler parameters
single time slice	equilibrium	equilibrium	path

fill table not yet available

last update: 2011-02-15 by konz

last update: 2011-07-13 by konz

6.4.2 Workflows

The IMP12 project has provided a series of prebuilt Kepler (29) workflows around equilibrium reconstruction, linear MHD stability, non-linear MHD, and disruptions.
Below the prototype workflows are described as they are stored in the keplerworkflows (5.16.1.2.13) repository under Gforge (29) . Most prototypes come with several production versions which are also stored in the keplerworkflows (5.16.1.2.13) repository.
The list is constantly expanding.

IMP12's workflows are hosted in the following categories:

```
- fixed_boundary_equilibrium
- free_boundary_equilibrium
- linear_MHD
```

6.4.2.1 Prototype Workflows

Workflow	Description
equalslice.xml	free boundary equilibrium reconstruction based on magnetics data using EQUALslice (6.4.1.1.1).
helena_aug.xml	high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1).

Workflow	Description
ilsa_aug.xml	linear MHD stability analysis for a high resolution fixed boundary equilibrium using ILSA (6.4.1.2.1).
equal_helena.xml	Free boundary equilibrium reconstruction based on magnetics data using EQUALslice (6.4.1.1.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1).
equal_helena_ilsa.xml	Free boundary equilibrium reconstruction based on magnetics data using EQUALslice (6.4.1.1.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1). Resulting equilibrium analyzed for linear MHD stability using ILSA (6.4.1.3.1)
progen_helena_analytic.xml	Analytic profile and shape generation using PROGEN (6.4.1.4.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1).
progen_helena_aug.xml	ASDEX Upgrade profile and shape generation using PROGEN (6.4.1.4.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1).
progen_helena_ilsa_analytic.xml	Analytic profile and shape generation using PROGEN (6.4.1.4.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1). Resulting equilibrium analyzed for linear MHD stability using ILSA (6.4.1.3.1)
progen_helena_ilsa_aug.xml	ASDEX Upgrade profile and shape generation using PROGEN (6.4.1.4.1) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1). Resulting equilibrium analyzed for linear MHD stability using ILSA (6.4.1.3.1)
jalpha_helena_analytic.xml	$j-\alpha$ -modification of an existing fixed boundary equilibrium using JALPHA (6.4.1.4.2) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1).
jalpha_helena_ilsa_analytic.xml	$j-\alpha$ -modification of an existing fixed boundary equilibrium using JALPHA (6.4.1.4.2) and subsequent high resolution fixed boundary equilibrium calculation using HELENA (6.4.1.2.1). Resulting equilibrium analyzed for linear MHD stability using ILSA (6.4.1.3.1)

6.4.2.2 Production Workflows

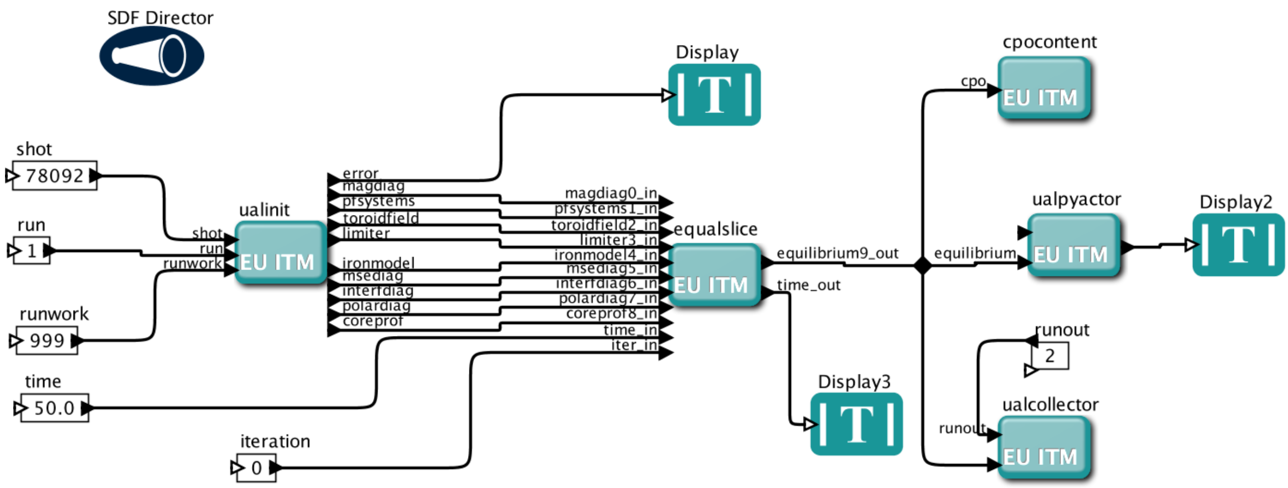
Prototype	Production
progen_helena_aug.xml	progen_helena_aug_20116@2_25.xml
	progen_helena_aug_20116@3_59.xml
	progen_helena_aug_20116@5_09.xml
progen_helena_ilsa_aug_xml	progen_helena_ilsa_aug_20116@2_25.xml
	progen_helena_ilsa_aug_20116@3_59.xml
	progen_helena_ilsa_aug_20116@5_09.xml

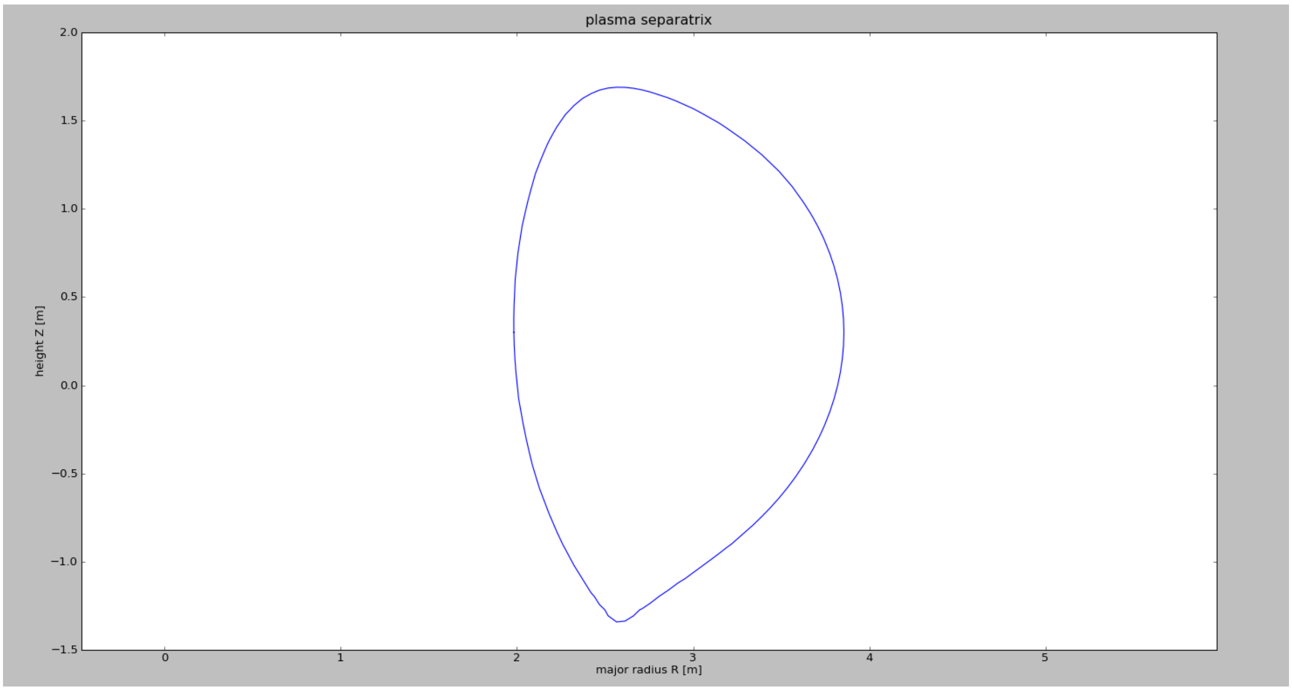
6.4.2.3 Free Boundary Equilibrium Reconstruction

6.4.2.3.1 EQUAL slice

The workflow **equalslice.xml** reads JET magnetics data from the ITM database and runs the EQUAL free boundary equilibrium reconstruction code to calculate the equilibrium. A Python actor (29) is included to visualize the resulting separatrix curve (see figure below).

Type	Actors	Input CPOs	Output CPOs
linear	ualinit equalslice ualpyactor ualcollector	magdiag pfsystems toroidfield limiter ironmodel msediag interfdiag polardiag coreprof	equilibrium



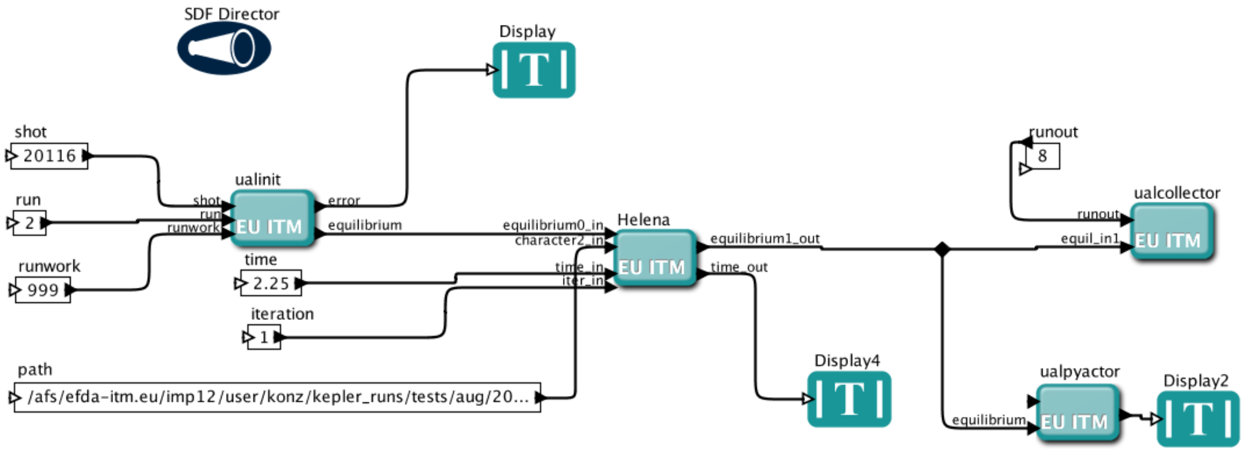


6.4.2.4 High Resolution Fixed Boundary Equilibrium Reconstruction

6.4.2.4.1 HELENA

The workflow **helena_aug.xml** reads an equilibrium CPO from the ITM database (which may contain as little as the input profiles and boundary curve) and calculates the high resolution fixed boundary equilibrium inside the specified boundary curve using the HELENA actor. A Python actor is included to visualize the resulting equilibrium.

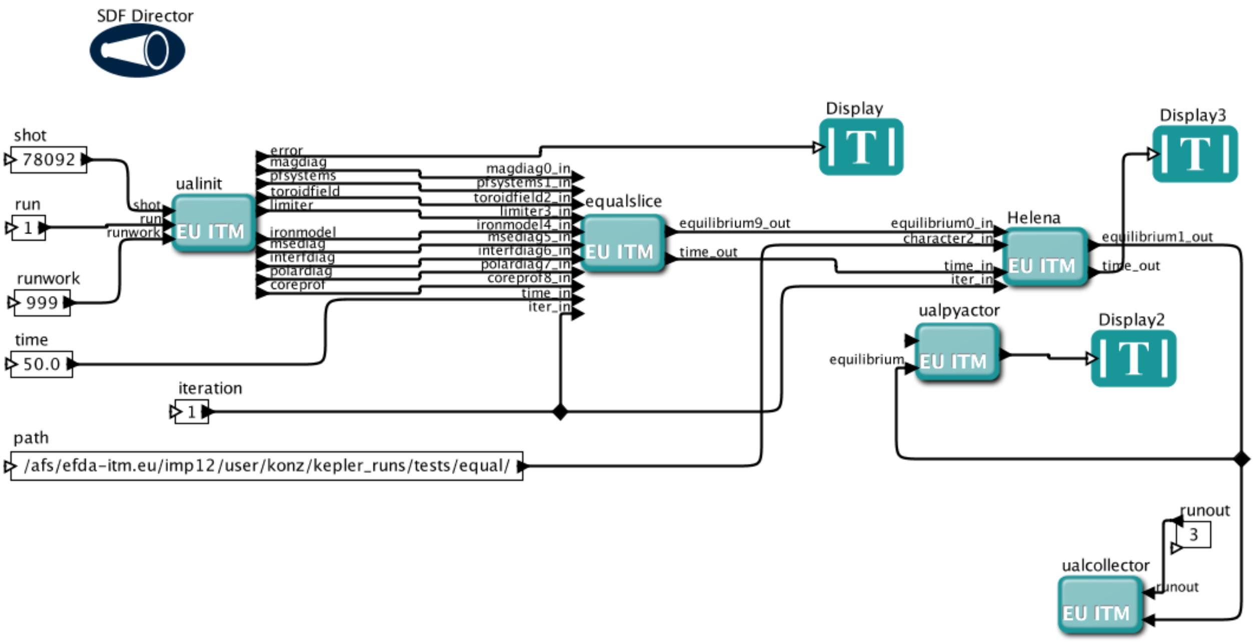
Type	Actors	Input CPOs	Output CPOs
linear	ualinit helena ualpyactor ualcollector	equilibrium	equilibrium

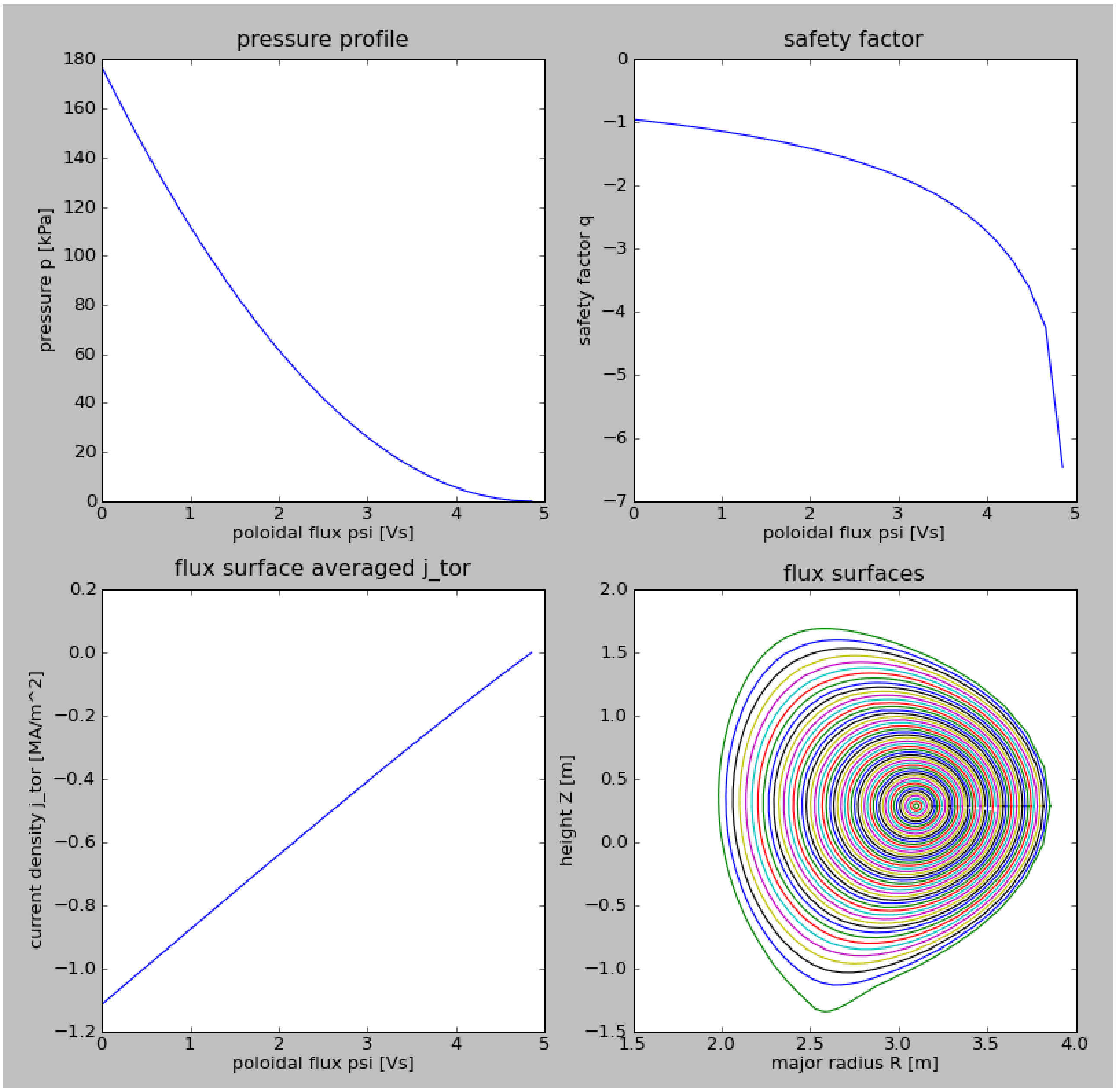


6.4.2.4.2 EQUAL-HELENA

The workflow **equal_helena.xml** reads JET magnetics data from the ITM database and runs the EQUAL free boundary equilibrium reconstruction code to calculate the equilibrium. The resulting equilibrium is then reconstructed within the separatrix with the high resolution equilibrium solver HELENA. A Python actor is included to visualize the pressure and current density profiles along with the safety factor q and a two-dimensional plot of the flux surfaces (see figure). The path parameter is optional and can be used to redirect verbose output to the specified directory.

Type	Actors	Input CPOs	Output CPOs
linear	ualinit equalslice helena ualpyactor ualcollector	magdiag pfsystems toroidfield limiter ironmodel msediag interfdiag polardiag coreprof	equilibrium





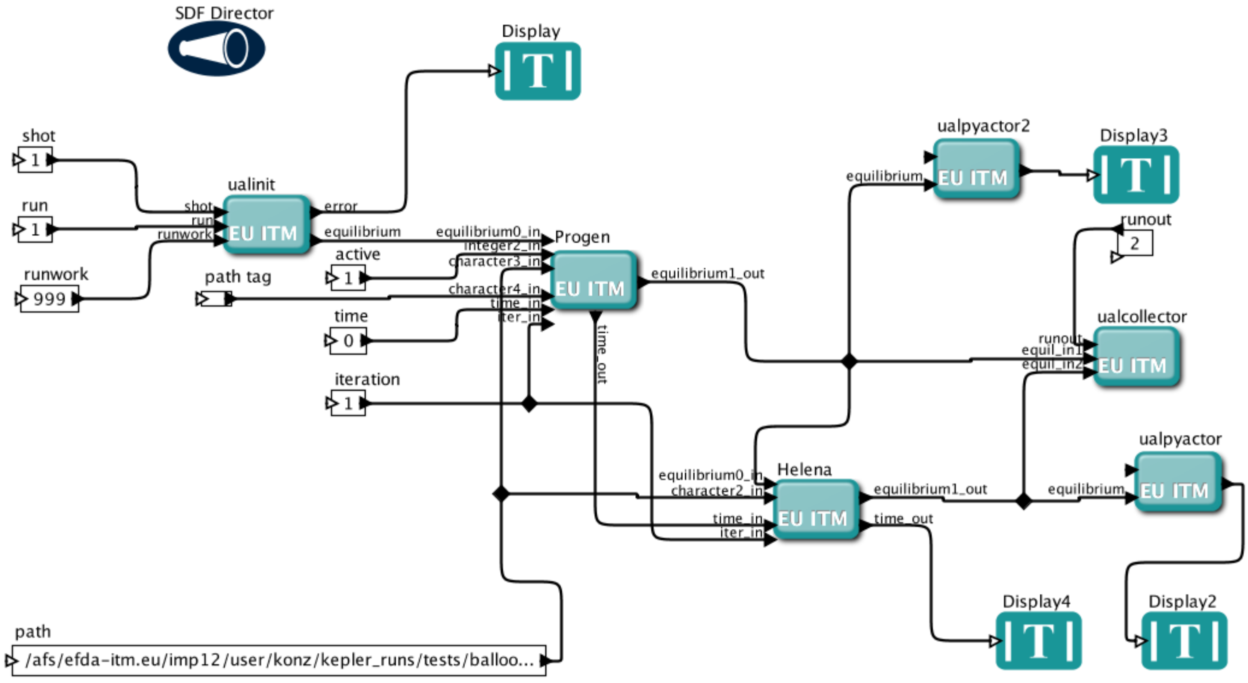
6.4.2.4.3 PROGEN-HELENA

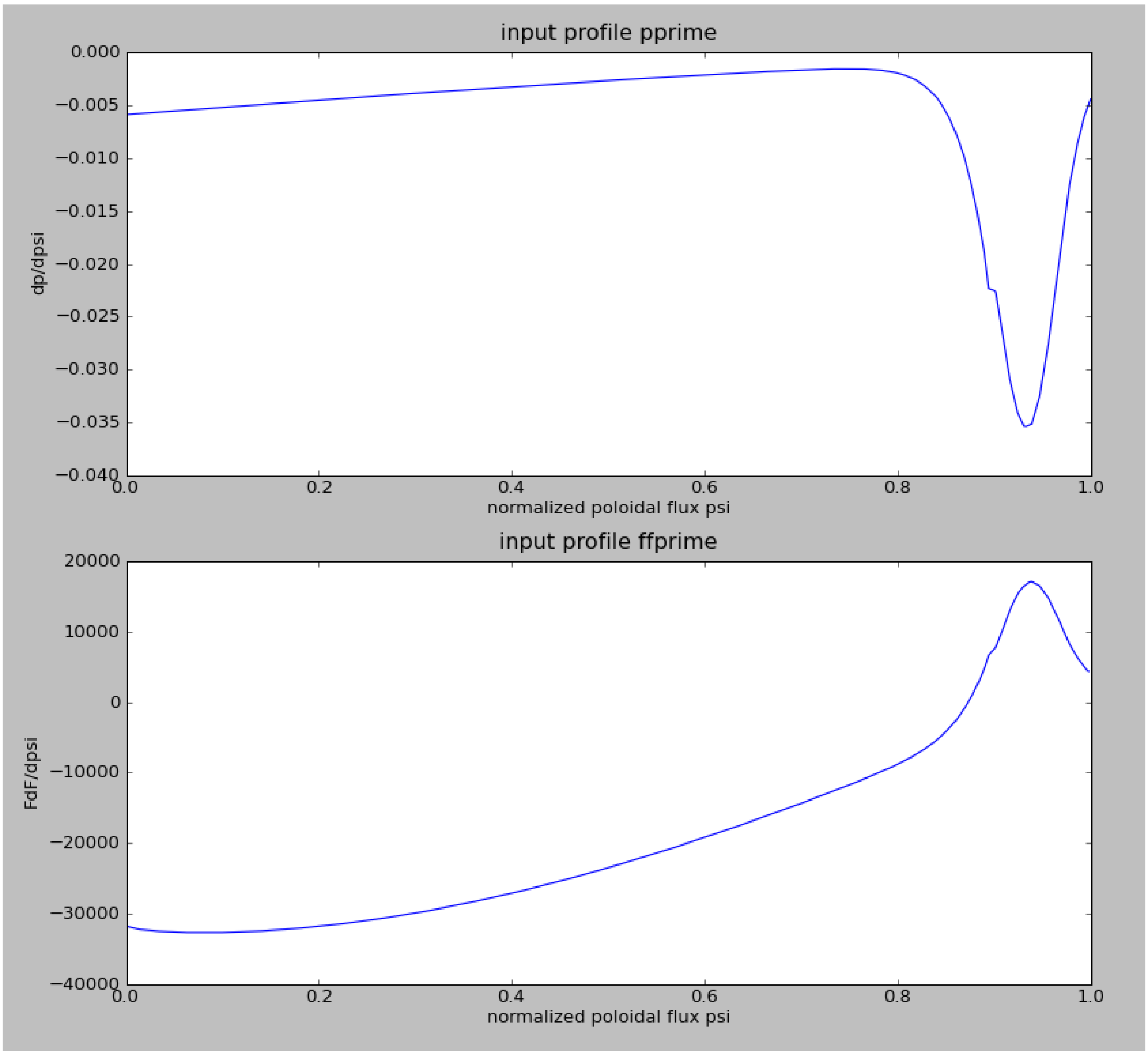
Two prototype workflows fall in this category: **progen_helena_analytic.xml** and **progen_helena_aug.xml** . The first of these generates an equilibrium from an analytic definition of the profiles and the shape. The second reads experimental profiles and generates an experimental equilibrium for ASDEX Upgrade.

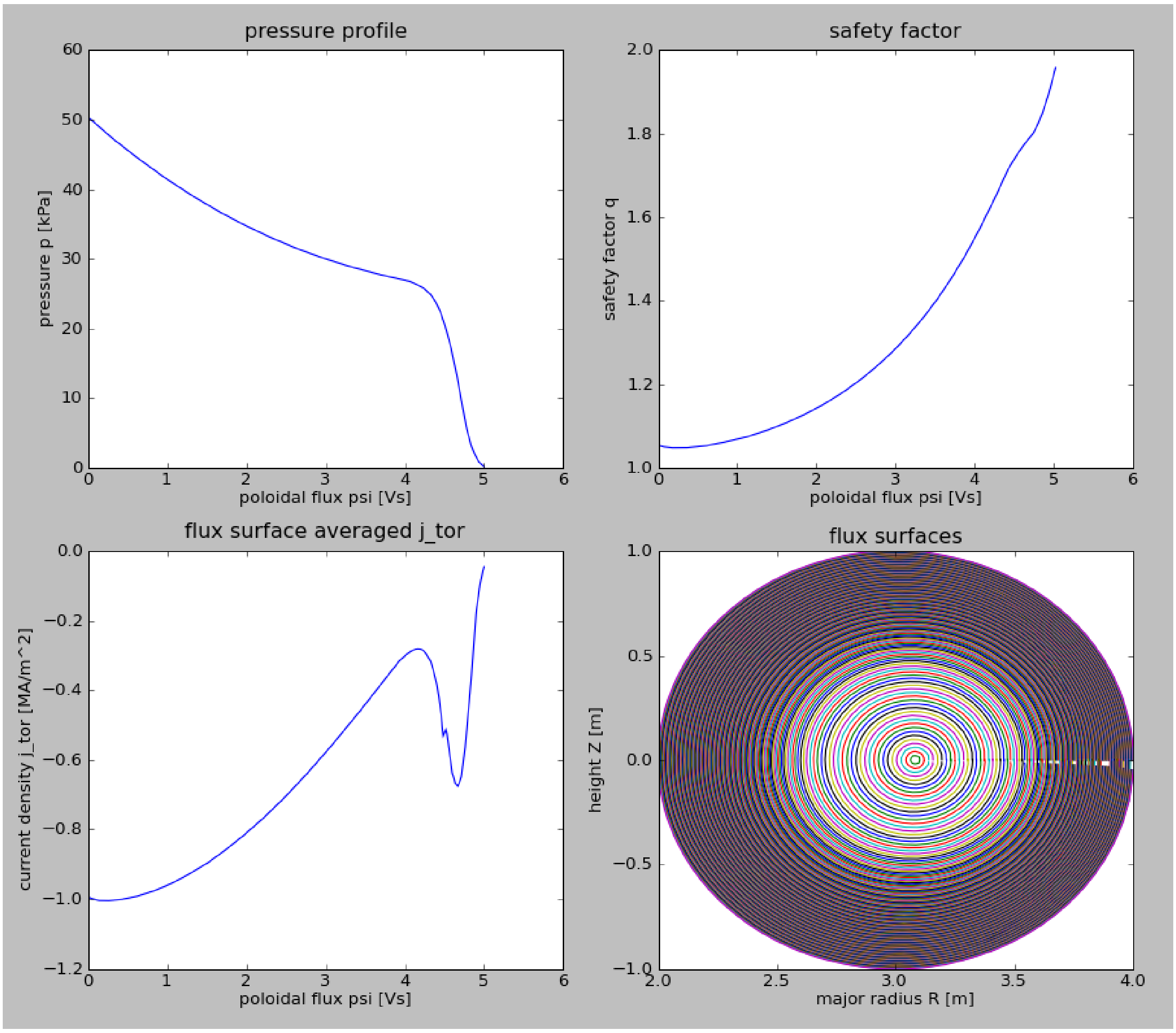
6.4.2.4.4 Analytic equilibrium

The workflow **progen_helena_analytic.xml** uses the simple tool PROGEN to generate analytic profiles for p′, FF′ and the plasma boundary which are fed to the high resolution fixed boundary equilibrium solver HELENA. One Python actor shows the incoming p′ and FF′ profiles while a second Python actor shows the resulting equilibrium (see figures). The path parameter is optional but can be used to read profiles from file and to redirect verbose output to the specified directory.

Type	Actors	Input CPOs	Output CPOs
linear	ualinit progen helena ualpyactor ualcollector	none	equilibrium


SDF Director
Display
shot
run
runwork
999
ualinit
EU ITM
error
equilibrium
path tag
active
time
0
iteration
Progen
equilibrium0_in
integer2_in
character3_in
character4_in
time_in
iter_in
equilibrium1_out
time_out
ualpyactor2
Display3
runout
2
ualcollector
equil_in1
equil_in2
Helena
equilibrium0_in
character2_in
time_in
iter_in
equilibrium1_out
time_out
ualpyactor
equilibrium
Display4
Display2
path
/afs/efda-itm.eu/imp12/user/konz/kepler_runs/tests/balloo...

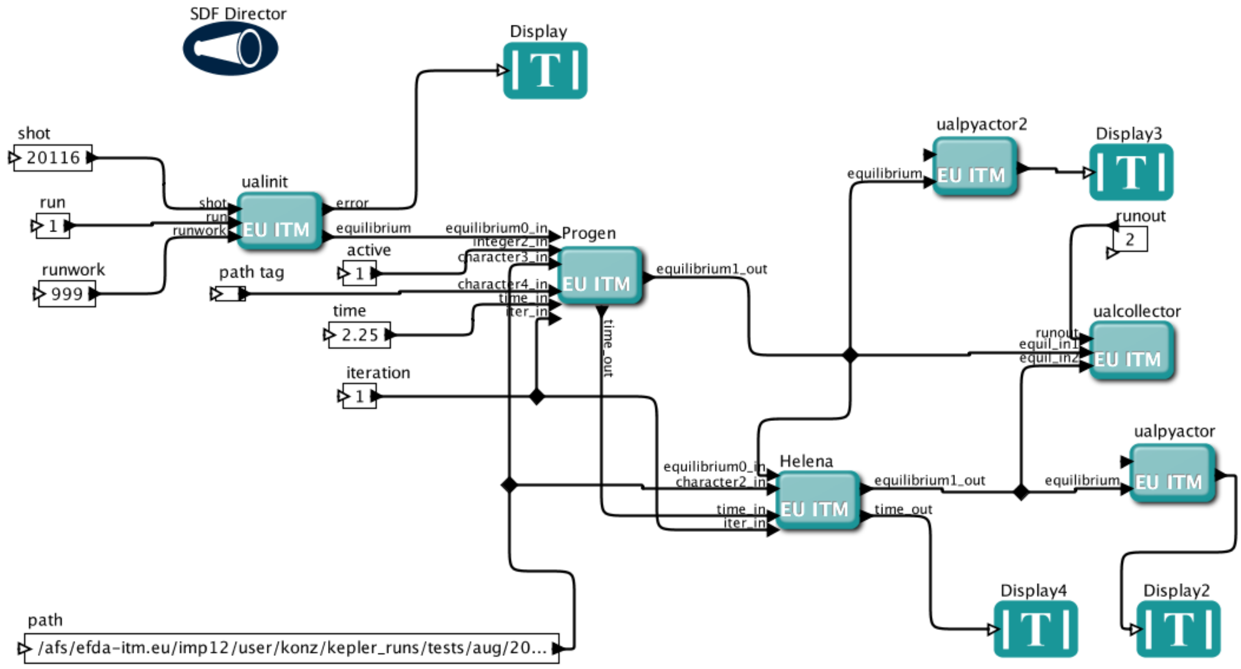

input profile pprime
dp/dpsi
normalized poloidal flux psi
input profile ffprime
FdF/dpsi
normalized poloidal flux psi

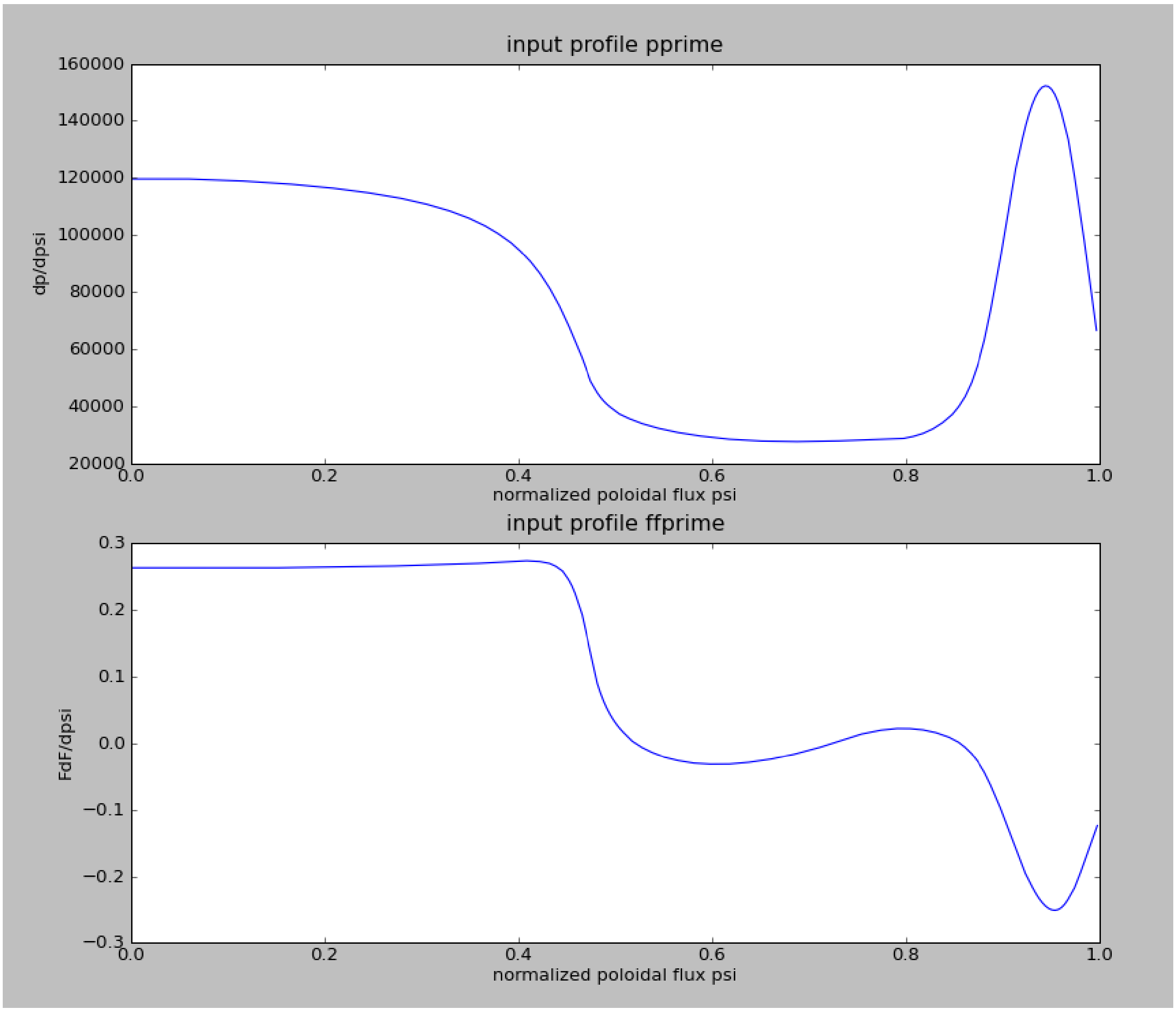


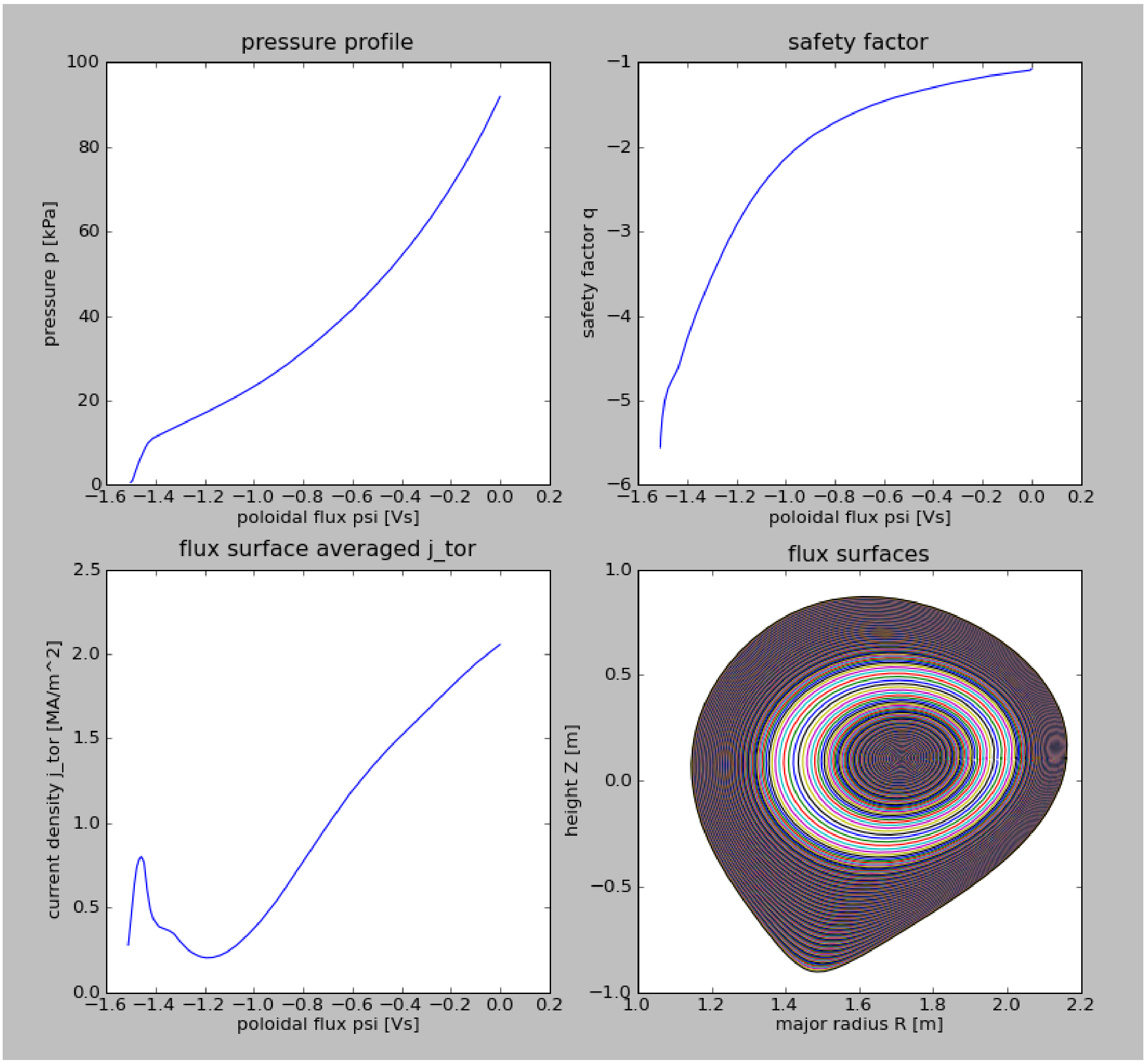
6.4.2.4.5 Experimental equilibrium

The workflow **progen_helena_aug.xml** uses the simple tool PROGEN to read the profiles for p′, FF′ and the plasma boundary from files. These are then fed to the high resolution fixed boundary equilibrium solver HELENA. One Python actor shows the incoming p′ and FF′ profiles while a second Python actor shows the resulting equilibrium (see figures). The path parameter is used to read the profiles from file and to redirect verbose output to the specified directory.

Type	Actors	Input CPOs	Output CPOs
linear	ualinit progen helena ualpyactor ualcollector	none	equilibrium


SDF Director
Display
shot
20116
run
1
runwork
999
ualinit
shot
run
runwork
EU ITM
error
equilibrium
active
1
path tag
time
2.25
iteration
1
equilibrium0_in
integer2_in
character3_in
character4_in
time_in
iter_in
Progen
EU ITM
equilibrium1_out
time_out
ualpyactor2
equilibrium
EU ITM
Display3
runout
2
ualcollector
runout
equil_in1
equil_in2
EU ITM
equilibrium0_in
character2_in
time_in
iter_in
Helena
EU ITM
equilibrium1_out
time_out
ualpyactor
equilibrium
EU ITM
Display4
Display2
path
/afs/efda-itm.eu/imp12/user/konz/kepler_runs/tests/aug/20...

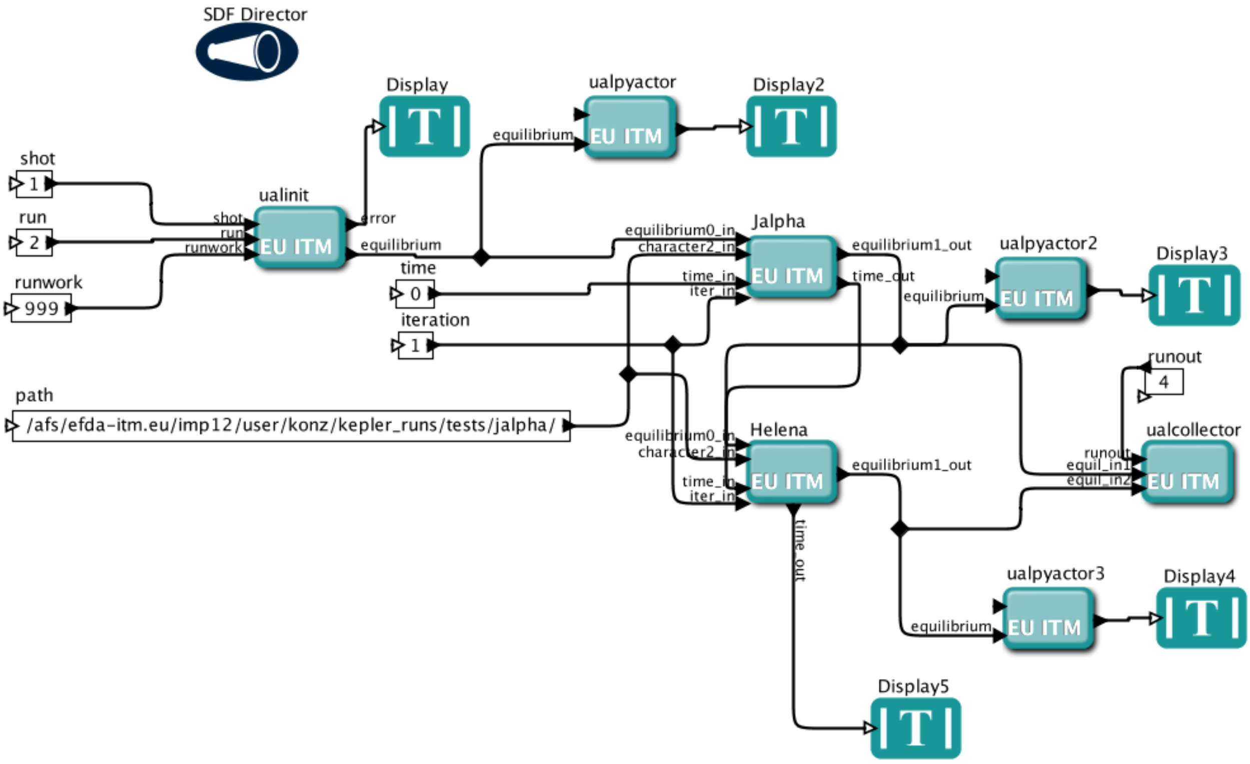

input profile pprime
dp/dpsi
normalized poloidal flux psi
input profile ffprime
FdF/dpsi
normalized poloidal flux psi

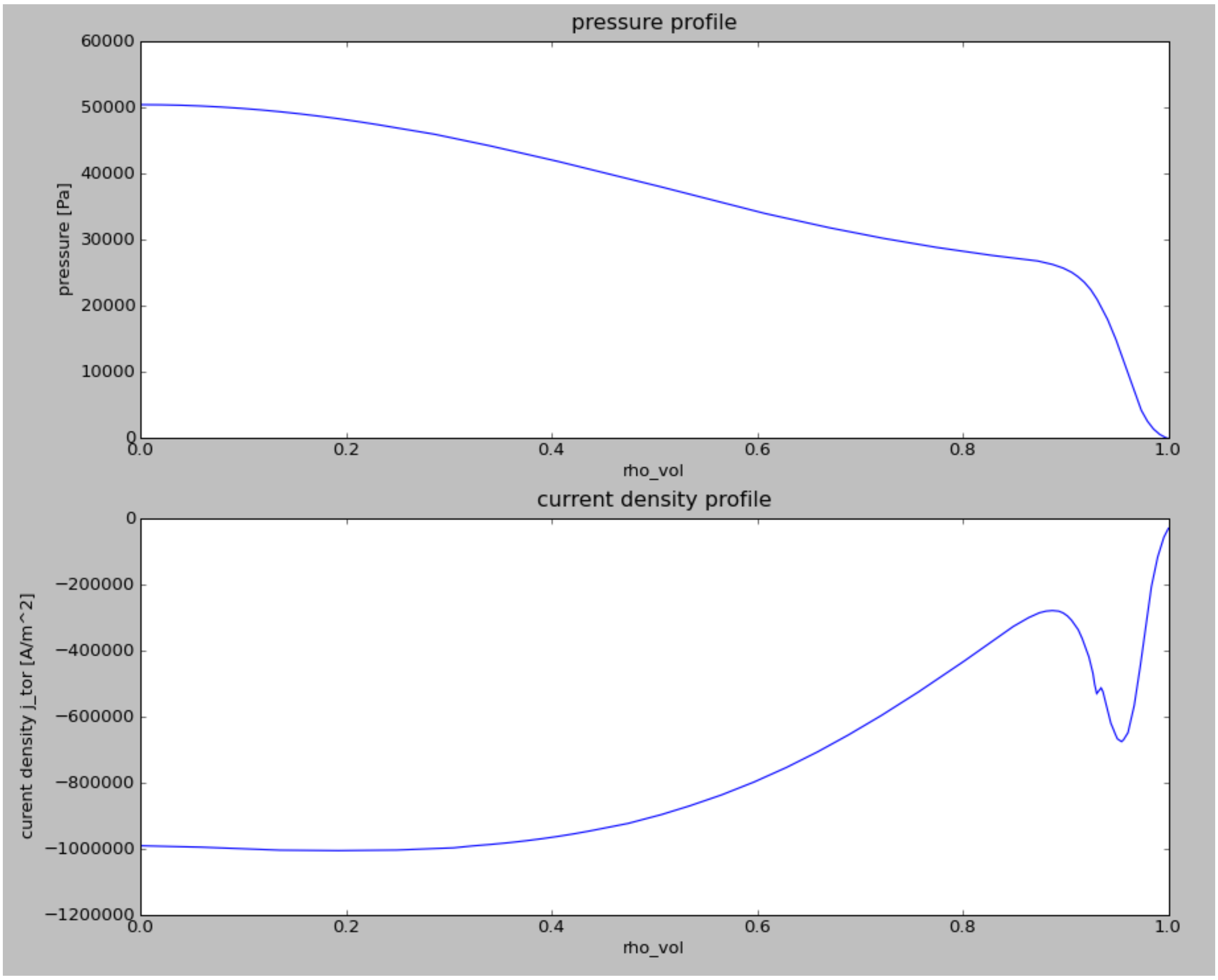


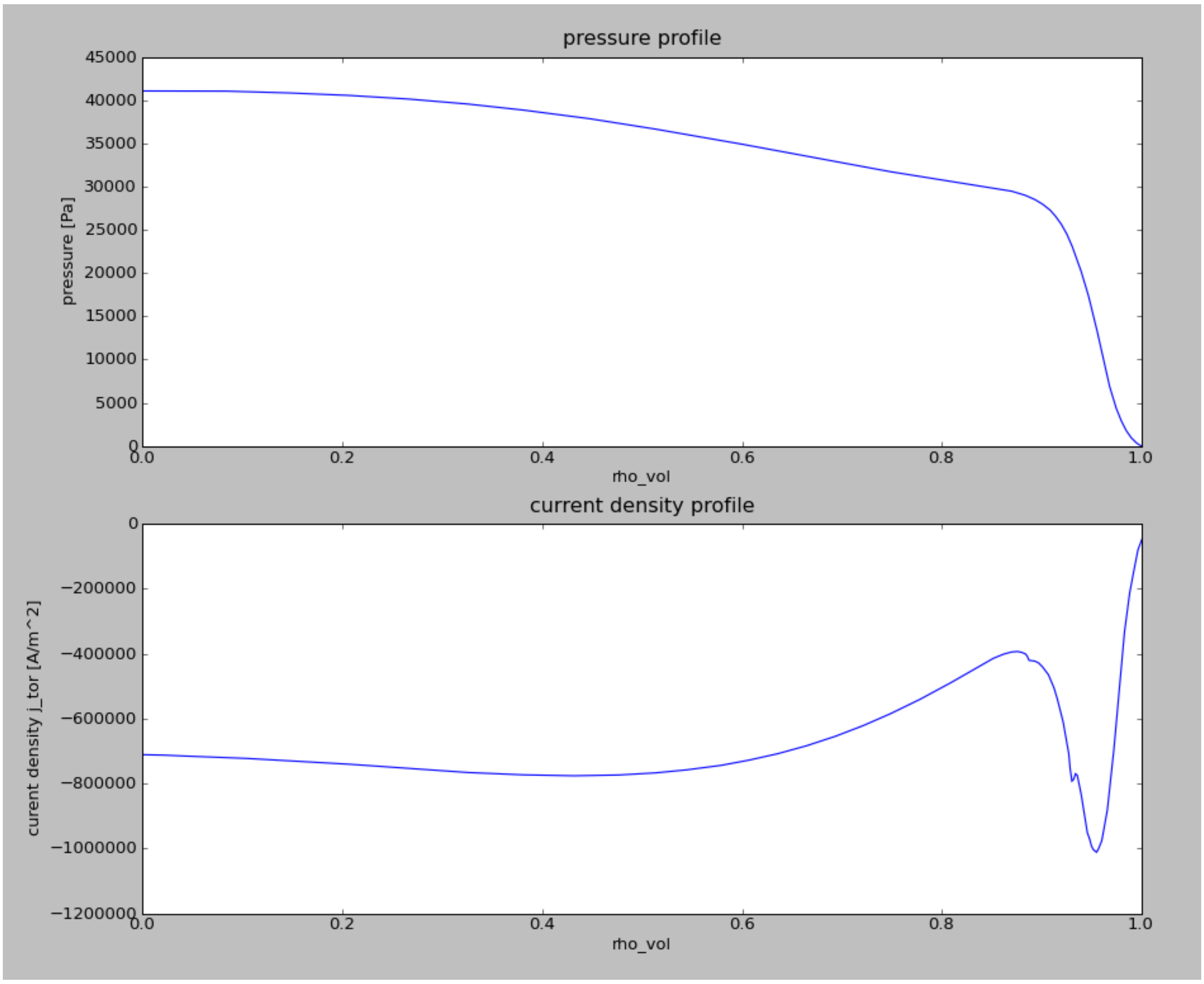
6.4.2.4.6 JALPHA-HELENA

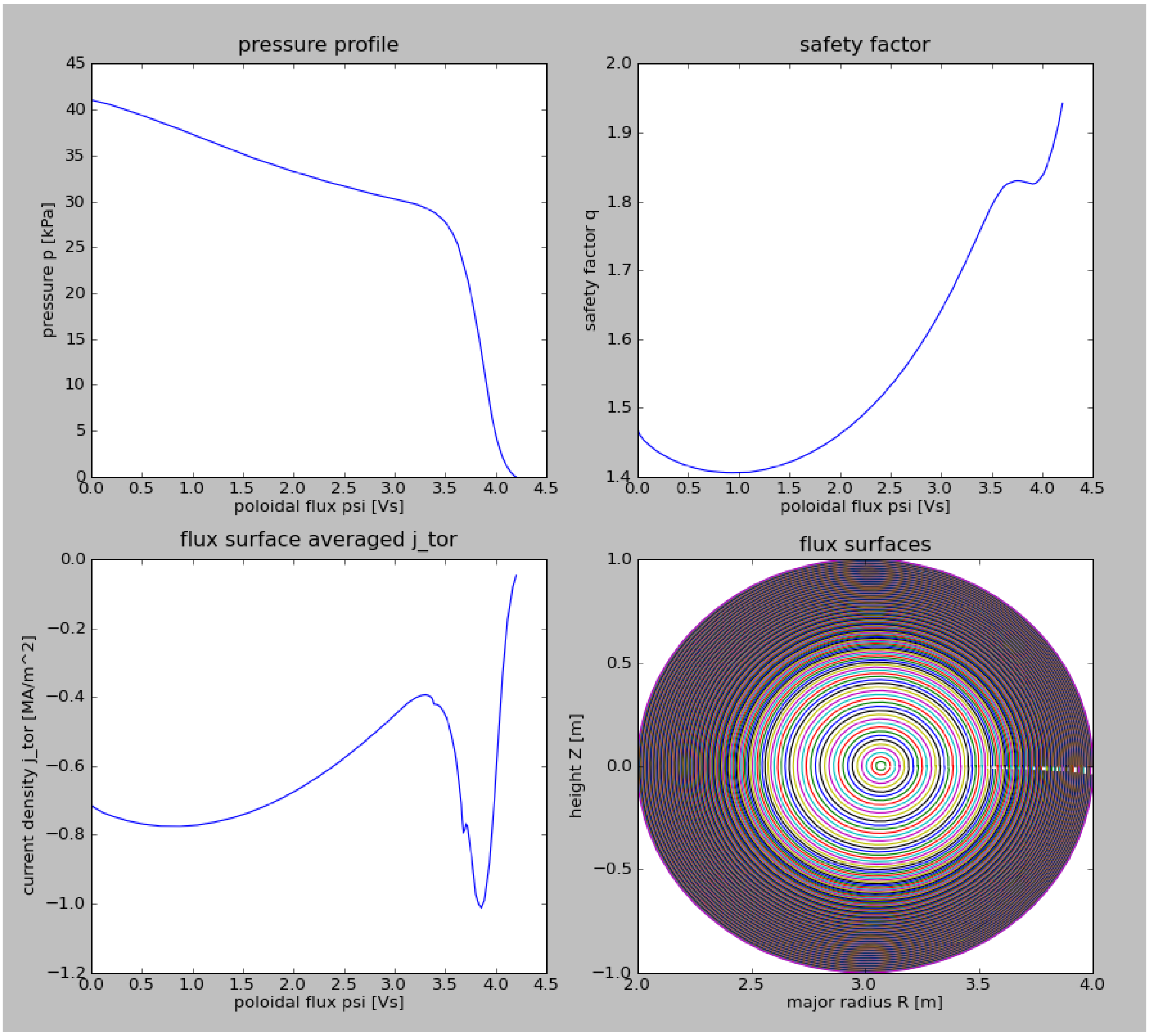
The workflow **jalpha_helena_analytic.xml** reads a precalculated equilibrium (for instance calculated with HELENA) from the data base, modifies the pressure and current density profiles with the module JALPHA and calculates the new equilibrium using the HELENA actor. The intention here is to modify an experimental equilibrium for edge stability analysis, so called j- α diagrams. A Python actor shows the pressure and current density profiles of the original equilibrium another the modified profiles while a third Python actor shows the new equilibrium (see figures). The path parameter is optional and can be used to redirect verbose output to the specified directory.

Type	**Actors**	**Input CPOs**	**Output CPOs**
linear	ualinit jalpha helena ualpyactor ualcollector	equilibrium	equilibrium


SDF Director
Display
ualpyactor
Display2
shot
1
run
2
runwork
999
ualinit
shot
run
runwork
EU ITM
error
equilibrium
equilibrium
EU ITM
EU ITM
time
0
iteration
1
equilibrium0_in
character2_in
Jalpha
time_in
iter_in
EU ITM
equilibrium1_out
time_out
ualpyactor2
equilibrium
EU ITM
Display3
runout
4
path
/afs/efda-itm.eu/imp12/user/konz/kepler_runs/tests/jalpha/
equilibrium0_in
character2_in
Helena
time_in
iter_in
EU ITM
equilibrium1_out
time_out
ualcollector
runout
equil_in1
equil_in2
EU ITM
ualpyactor3
equilibrium
EU ITM
Display4
Display5


pressure profile
pressure [Pa]
60000
50000
40000
30000
20000
10000
0
0.0
0.2
0.4
0.6
0.8
1.0
rho_vol
current density profile
curent density j_tor [A/m^2]
0
−200000
−400000
−600000
−800000
−1000000
−1200000
0.0
0.2
0.4
0.6
0.8
1.0
rho_vol


pressure profile
pressure [Pa]
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0.0
0.2
0.4
0.6
0.8
1.0
rho_vol
current density profile
curent density j_tor [A/m^2]
0
−200000
−400000
−600000
−800000
−1000000
−1200000
0.0
0.2
0.4
0.6
0.8
1.0
rho_vol

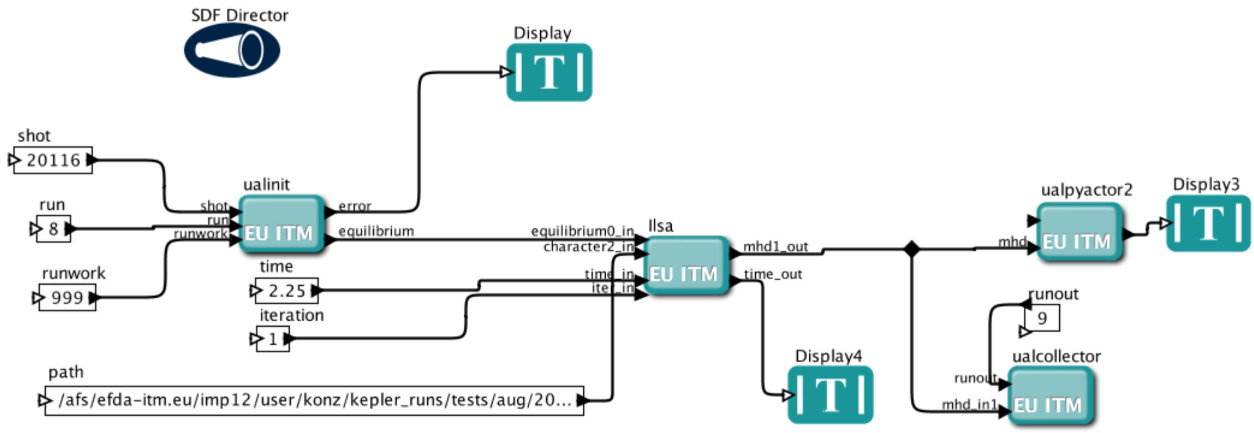


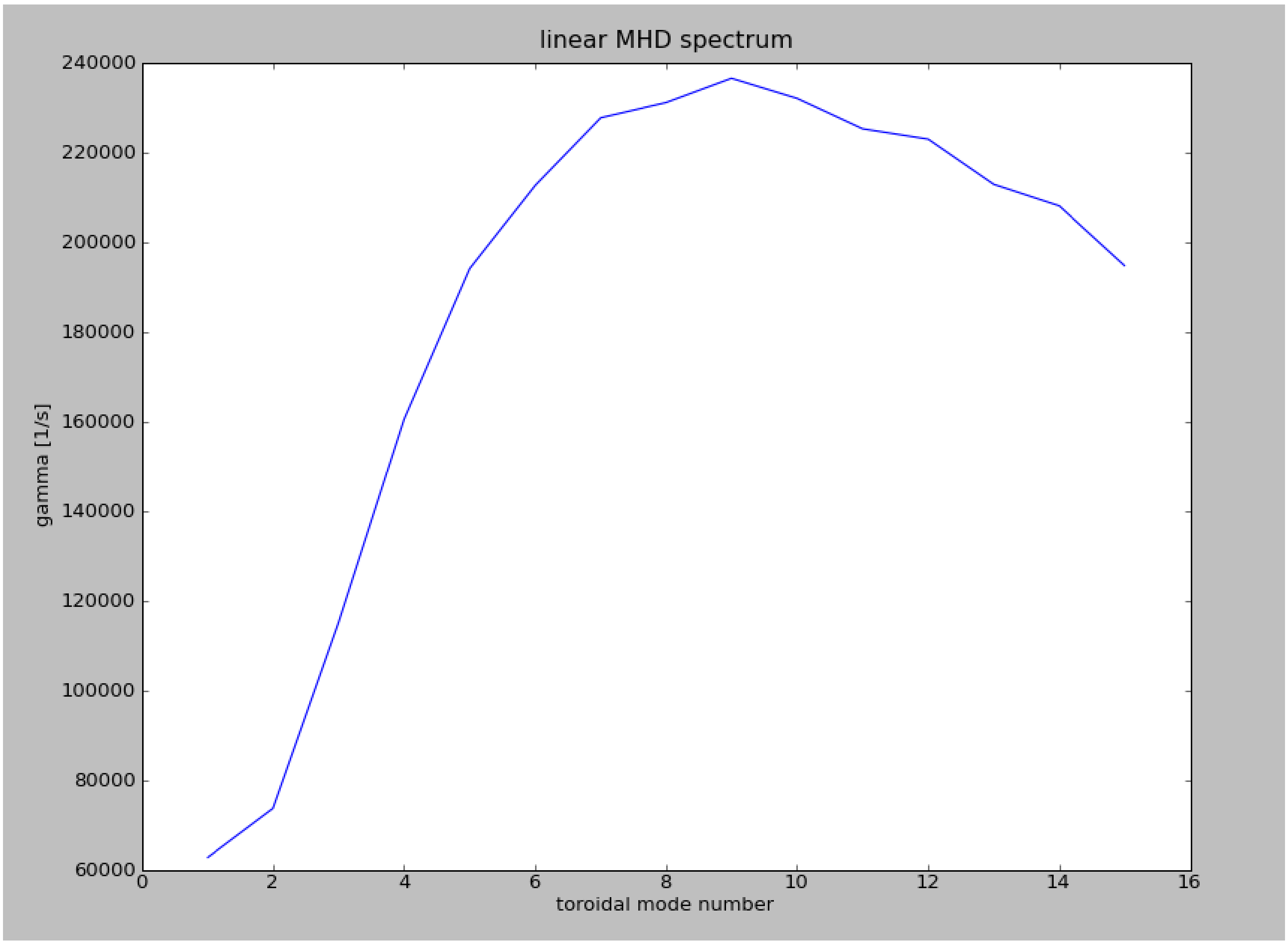
6.4.2.5 Linear MHD Stability Analysis

6.4.2.5.1 ILSA

The workflow **ilsa_aug.xml** reads an equilibrium CPO from the ITM database containing a high resolution fixed boundary equilibrium. It then analyzes the equilibrium for linear MHD stability and calculates a spectrum of growthrates and frequencies vs. toroidal mode numbers using the linear MHD stability actor ILSA. A Python actor is included to visualize the resulting spectrum (see figure below).

Type	**Actors**	**Input CPOs**	**Output CPOs**
linear	ualinit ilsa ualpyactor ualcollector	equilibrium	mhd



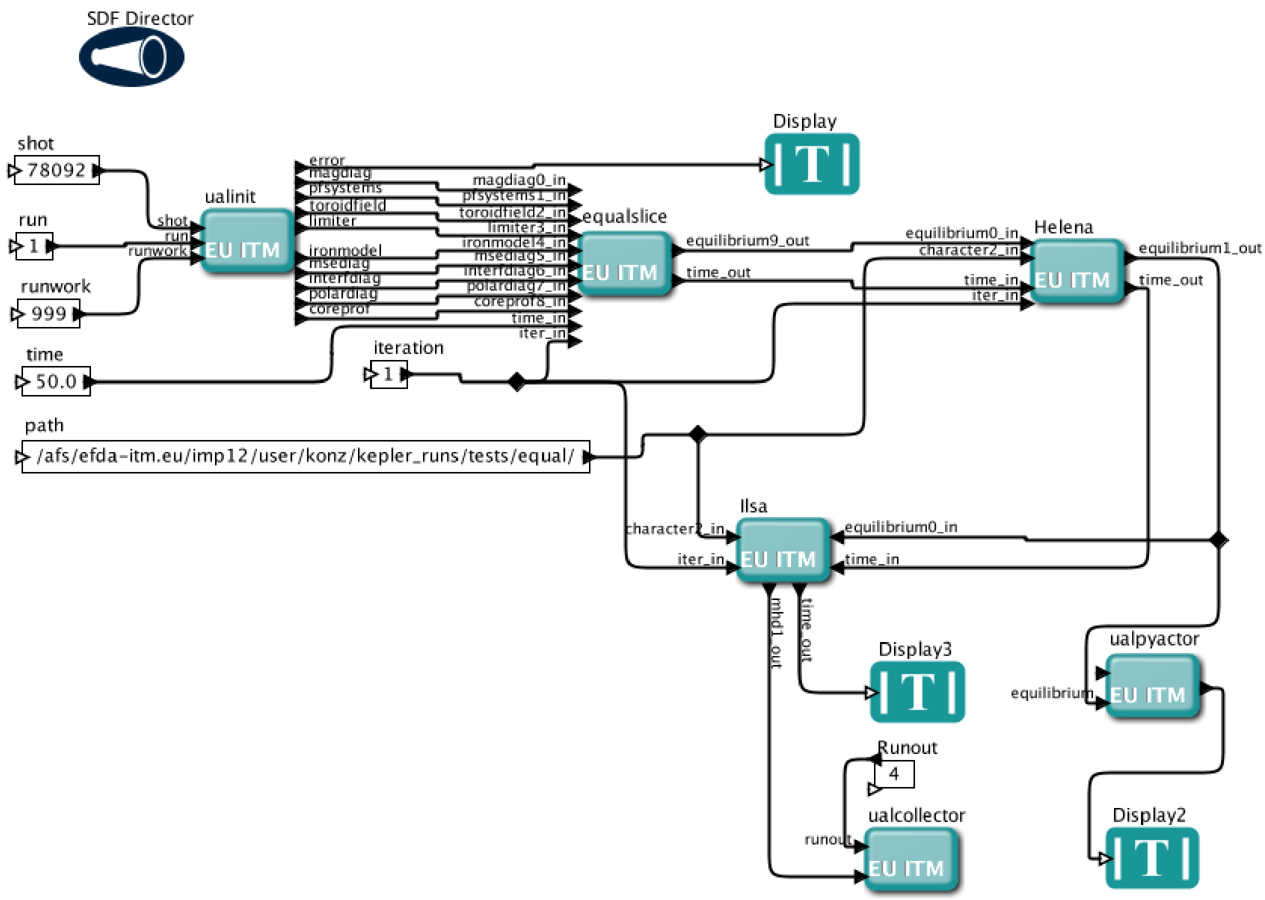


6.4.2.5.2 EQUAL-HELENA-ILSA

The workflow **equal_helena_ilsa.xml** reads JET magnetics data from the ITM database and runs the EQUAL free boundary equilibrium reconstruction code to calculate the equilibrium. The resulting equilibrium is then reconstructed within the separatrix with the high resolution equilibrium solver HELENA. Using this high resolution fixed boundary equilibrium, the linear MHD stability module ILSA determines the stability of the equilibrium.

A Python actor is included to visualize the pressure and current density profiles along with the safety factor q and a two-dimensional plot of the flux surfaces. The path parameter is optional and can be used to redirect verbose output to the specified directory. The resulting MHD CPO (29) is stored in the database using the `ualcollector` actor.

Type	Actors	Input CPOs	Output CPOs
linear	ualinit equalslice helena ilsa cpocontent ualpyactor	magdiag pfsystems toroidfield limiter ironmodel msediag interfdiag polardiag coreprof	mhd



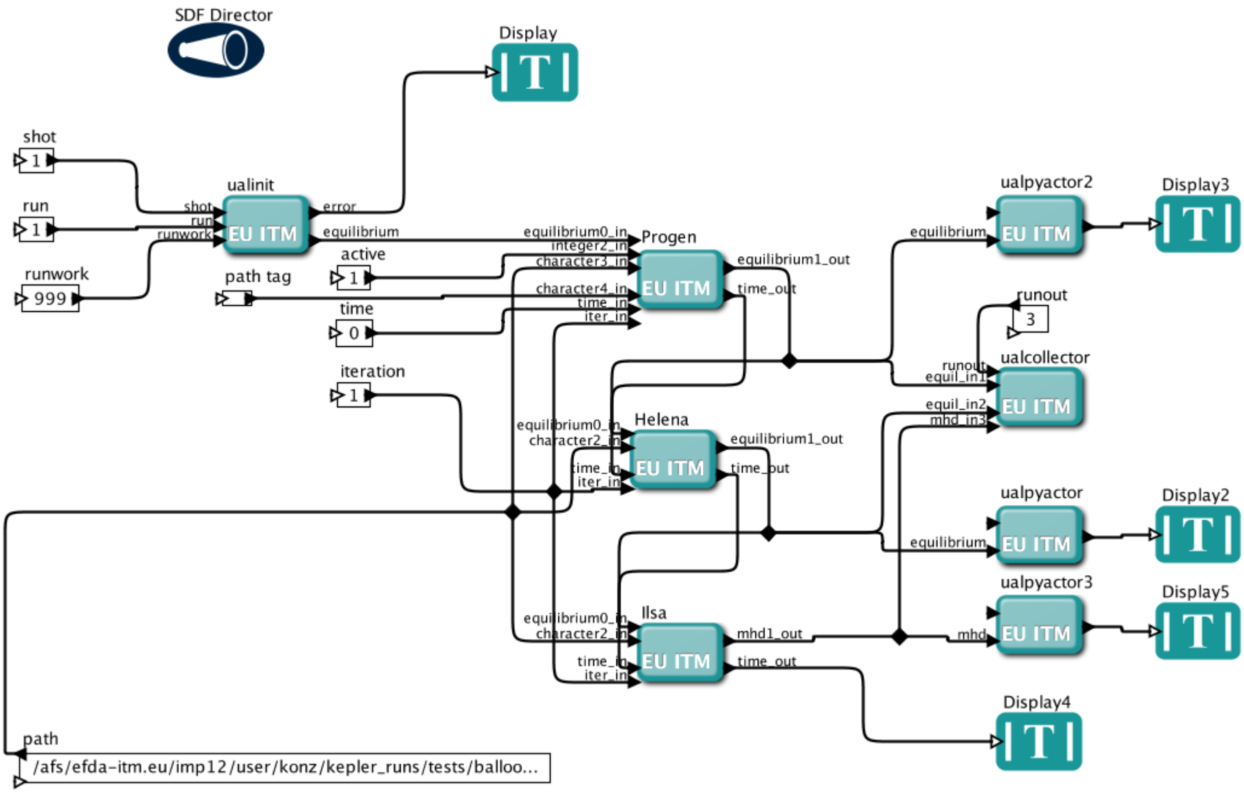
6.4.2.5.3 PROGEN-HELENA-ILSA

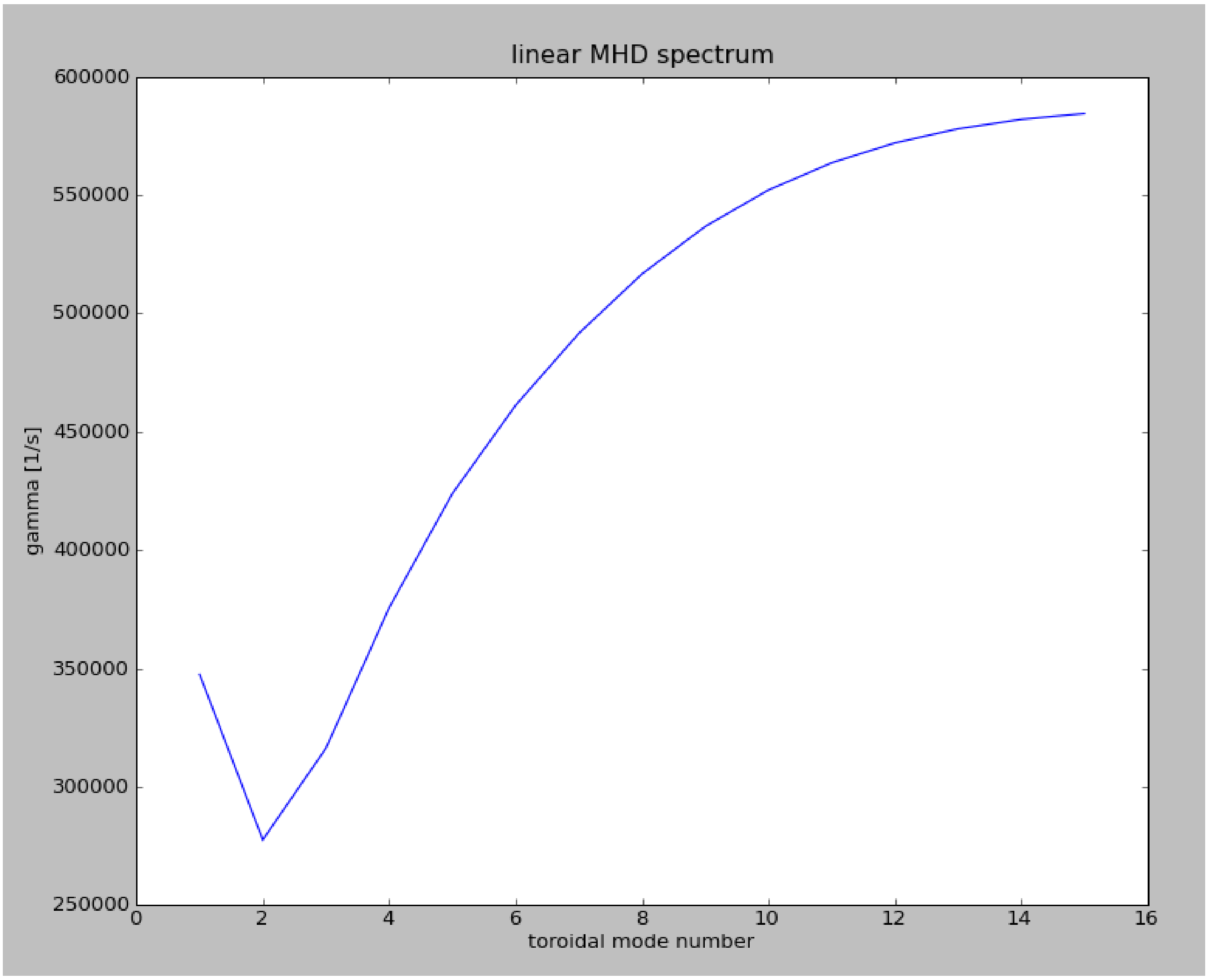
Two prototype workflows fall in this category: **progen_helena_ilsa_analytic.xml** and **progen_helena_ilsa_aug.xml**
.
The first of these generates an equilibrium from an analytic definition of the profiles and the shape. The second reads experimental profiles and generates an experimental equilibrium for ASDEX Upgrade. Both workflows then analyze the linear MHD stability of the resulting equilibria.

6.4.2.5.4 Analytic equilibrium

The workflow **progen_helena_ilsa_analytic.xml** uses the simple tool PROGEN to generate analytic profiles for p′, FF′ and the plasma boundary which are fed to the high resolution fixed boundary equilibrium solver HELENA. One Python actor shows the incoming p′ and FF′ profiles while a second Python actor shows the resulting equilibrium. Using this high resolution fixed boundary equilibrium, the linear MHD stability module ILSA determines the stability of the equilibrium. The path parameter is optional but can be used to read profiles from file and to redirect verbose output to the specified directory. A third Python actor shows the resulting linear MHD spectrum (see figure below).

Type	Actors	Input CPOs	Output CPOs
linear	ualinit progen helena ualpyactor ilsa cpocontent	none	equilibrium mhd

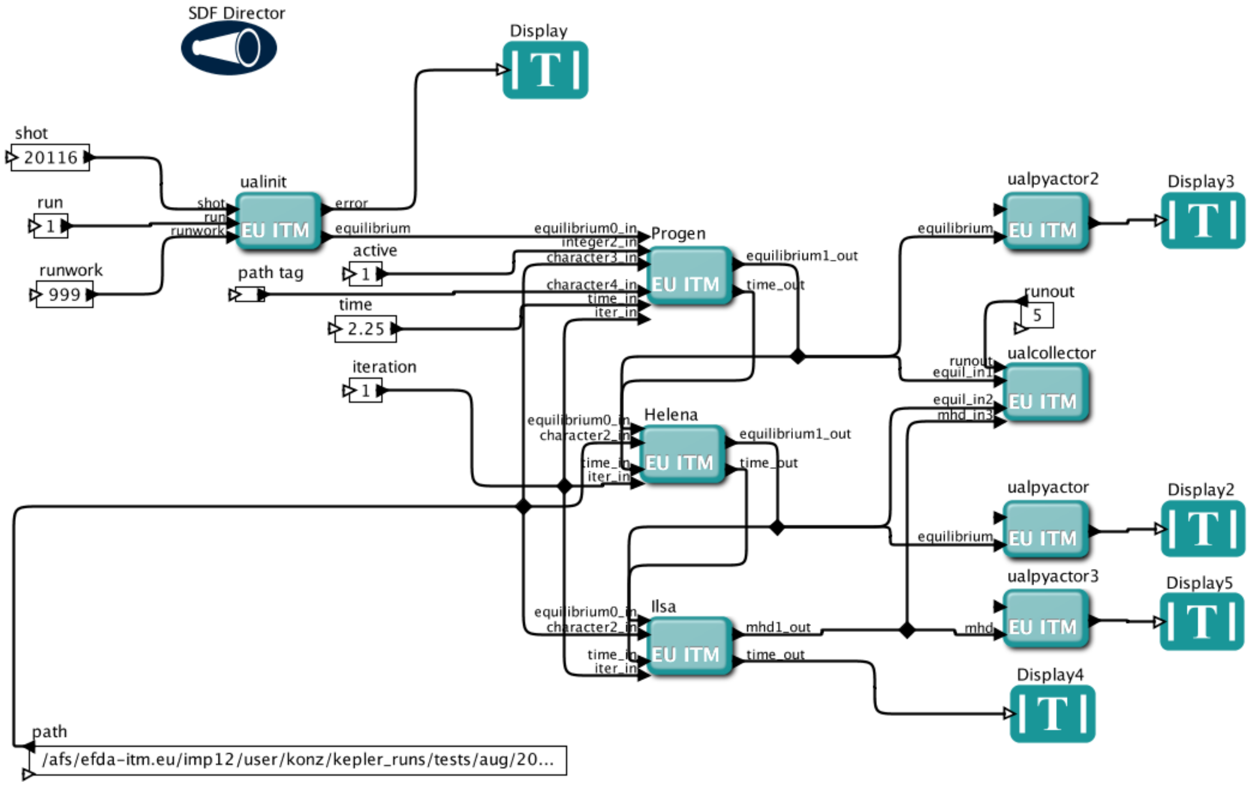




6.4.2.5.5 Experimental equilibrium

The workflow **progen_helena_ilsa_aug.xml** uses the simple tool PROGEN to read the profiles for p′, FF′ and the plasma boundary from files. These are then fed to the high resolution fixed boundary equilibrium solver HELENA. One Python actor shows the incoming p′ and FF′ profiles while a second Python actor shows the resulting equilibrium. Using this high resolution fixed boundary equilibrium, the linear MHD stability module ILSA determines the stability of the equilibrium. The path parameter is used to read profiles from file and to redirect verbose output to the specified directory. A third Python actor shows the resulting linear MHD spectrum.

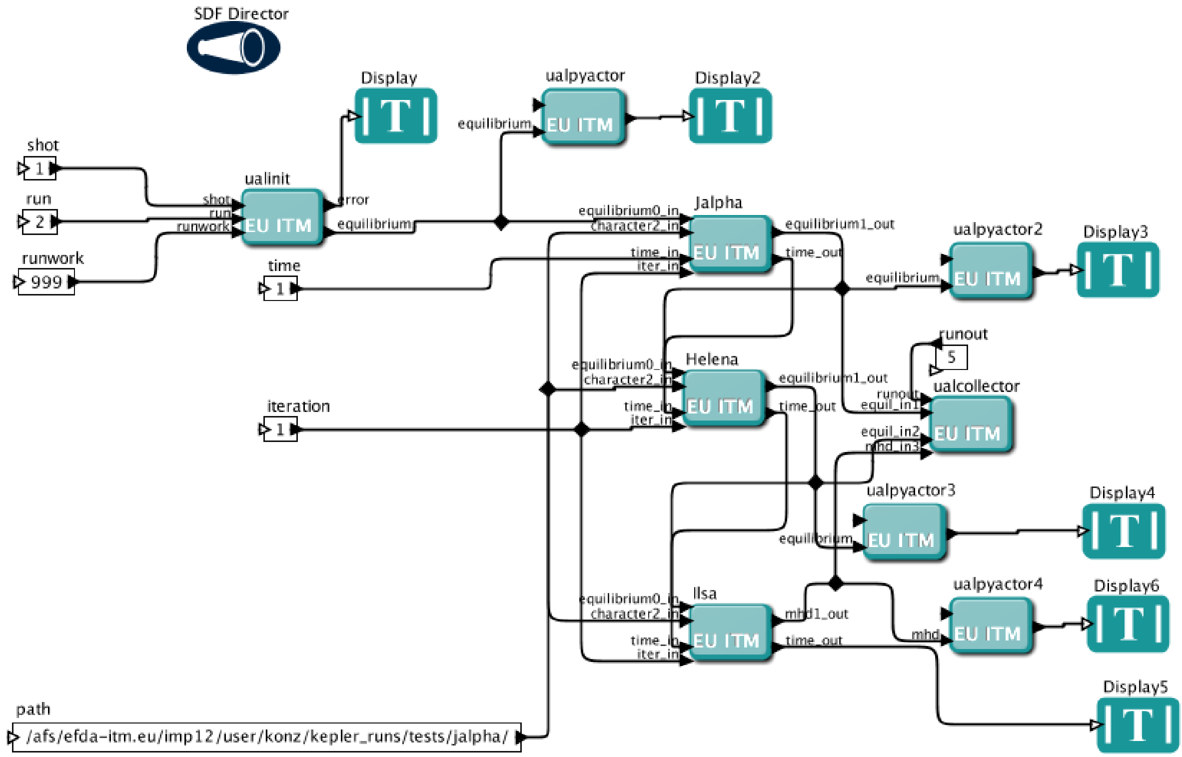
Type	**Actors**	**Input CPOs**	**Output CPOs**
linear	ualinit progen helena ualpyactor ilsa cpocontent	none	equilibrium mhd



6.4.2.5.6 JALPHA-HELENA-ILSA

The workflow jalpha_helena_analytic.xml reads a precalculated equilibrium (for instance calculated with HELENA) from the data base, modifies the pressure and current density profiles with the module JALPHA and calculates the new equilibrium using the HELENA actor. The modified high resolution fixed boundary equilibrium is then fed to the linear MHD stability module ILSA which determines the stability of the equilibrium. The intention here is to modify an experimental equilibrium for edge stability analysis, so called j- α diagrams. A Python actor shows the pressure and current density profiles of the original equilibrium another the modified profiles while a third Python actor shows the new equilibrium (see figures). The path parameter is optional and can be used to redirect verbose output to the specified directory. A cpocontent actor is included to show the content of the resulting MHD CPO.

Type	Actors	Input CPOs	Output CPOs
linear	ualinit jalpha helena ilsa ualpyactor ualcollector	equilibrium	equilibrium mhd



---

last update: 2010-12-17 by konz

---

last update: 2012-07-18 by coster

6.5 IMP12 Shots

Shots stored in the private data base of IMP12 members are generally not validated. Please do not publish without contacting the data provider.

6.5.1 ITER shots

The shots can be accessed by setting

```
TOKAMAKNAME = iter
```

6.5.1.1 UAL Version 4.08b

The shots can be accessed by setting

```
UAL = 4.08b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
1	2	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=0.0s+11s=11.0s).
	3	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the entire pressure profile between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=0.0s+5s=5.0s).
	4	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the core pressure profile only between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=0.0s+5s=5.0s).

6.5.2 JET shots

The shots can be accessed by setting

```
TOKAMAKNAME = jet
```

6.5.2.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
78092	1	magdiag pfsystems toroidfield limiter ironmodel msediag	konz	exp2itm	time trace of experimental signals for equilibrium reconstruction
	2	equilibrium	konz	equalslice	free boundary equilibrium at t=50s
	3	equilibrium	konz	equal_helena	fixed boundary equilibrium up to separatrix at t=50s
	4	mhd	konz	equal_helena_ilsa	linear MHD stability for n=-3..-5 at t=50s (stable)

6.5.3 ASDEX Upgrade shots

The shots can be accessed by setting

```
TOKAMAKNAME = aug
```

6.5.3.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
20116	2	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=2.25s with 5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	3	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	4	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=5.09s with 10 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	5	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=2.25s with 5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	6	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	7	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=5.09s with 10 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	8	equilibrium	konz	helena_aug	fixed boundary equilibrium (same as run 2)
	9	mhd	konz	ilsa_aug	linear MHD stability analysis for run 8 (toroidal mode number n = 1 - 15), peeling-ballooning mode

6.5.3.2 UAL Version 4.08b

The shots can be accessed by setting

```
UAL = 4.08b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
20116	2	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	3	equilibrium	konz	jalpha_helena	j- α modified equilibrium based on run 2 (scale_p=1.4, scale_j=1.5)
	6	mhd	konz	ilsa_aug	linear MHD stability analysis for run 2 (toroidal mode number n = 1 - 15), peeling-ballooning mode
	10	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=3.59s+11s=14.59s).
	11	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal width between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=3.59s+11s=14.59s).
	12	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the entire pressure profile between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=3.59s+5s=8.59s).

Shot	Run	CPOs	user	generated with	description
	13	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the core pressure profile only between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=3.59s+5s=8.59s).
23223	3	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 5.325s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=5.325s+11s=16.325s).
	4	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal width between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 5.325s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=5.325s+11s=16.325s).

6.5.4 TEST shots

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

6.5.4.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
1	2	equilibrium	konz	progen_helena_analytic	simple circular ballooning unstable equilibrium, high resolution fixed boundary equilibrium in straight field line coordinates
	3	equilibrium mhd	konz	progen_helena_ilsa_analytic	same as run 2
	4	equilibrium	konz	jalpha_helena_analytic	j- α modified equilibrium based on run 2 (p_modulator%c_2=1.1, j_modulator%c_2=1.5)
	5	equilibrium mhd	konz	jalpha_helena_ilsa_analytic	same as run 4

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last update: 2011-07-12 by konz

6.6 Meetings

6.6.1 2010/09/13-17 ITM General Meeting in Lisbon

6.6.1.1 Posters

- *Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows* (pdf [379]), by G. Calabrò et al.
- *The New ITM Website* (pdf [380]), by C. Konz et al.

[379] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[380] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf

- *Sawteeth and Neoclassical Tearing Modes Workflows* (ppt [381]), by O. Sauter et al.
- *Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a Scientific Workflow System* (pdf [382]), by W. Zwingmann et al.
- *Free Boundary Equilibrium Code CEDRES++* (pdf [383]), by J. Blum et al.
- *Status of MARS-F and CarMa codes on ITM* (ppt [384]), by D. Yadykin et al.

6.6.1.2 Code overview talks

- *Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak* (ppt [385]), by C.V. Atanasiu et al.
- *Update on FIXFREE and CREATE-NL* (ppt [386]), by G. Calabrò et al.
- *Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core* (pdf [387]), by W.A. Cooper

6.6.1.3 Talks on infrastructure and tools

- *XML2EQ (YAXFI)* (ppt [388]), by E. Giovannozzi
- *Interpos - Generic Code Params - Numerical Fit* (pdf [389]) (ppt [390]), by O. Sauter
- *Fitting to Scattered Data* (ppt [391]), by W. Zwingmann and L.-G. Eriksson

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last update: 2011-02-10 by konz

6.6.2 2010/11/08 Coupling of FBE and Transport Codes

6.6.2.1 Agenda

Time	Presentation
10:00h - 10:15h	"ETS workflow with free boundary code" David Coster
10:15h - 10:35h	"Coupling between CREATE-NL and JINTRAC" Florian Koechl
10:35h - 11:35h	"Lessons learned from developing, running, and validating DINA-CH, including coupling to CRONOS" Jo Lister, Karim Besseghir
11:35h - 12:00h	"CEDRES++" Cédric Boulbe
12:00h - 12:30h	"EQUAL in predictive mode" Wolfgang Zwingmann
12:30h - 14:00h	lunch break
14:00h - 17:00h	open discussion

6.6.2.2 Presentations

- *ETS - Free Boundary Equilibrium* (ppt [392]), by D. Coster

[381] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[382] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
[383] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[384] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[385] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[386] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[387] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[388] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[389] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[390] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.ppt
[391] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Zwingmann_fife-fitting_gs04.ppt
[392] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/ETS-FBE.ppt

- *Movie: Psi evolution (shot 5 run 42)* (mpg [393]), by D. Coster
- *Movie: Ne/Te/q evolution (shot 5 run 42)* (mpg [394]), by D. Coster
- *Coupling between CREATE-NL and JINTRAC* (ppt [395]), by F. Koechl
- *DINA-CH full tokamak simulator* (pdf [396]), by J. Lister and K. Besseghir
- *Movie: DINA plasma boundary* (mpg [397]), by J. Lister and K. Besseghir
- *Free boundary equilibrium code CEDRES++* (pdf [398]), by J. Blum et al.
- *Movie: CEDRES++ isoflux* (mpg [399]), by J. Blum et al.
- *EQUAL in predictive mode* (ppt [400]), by W. Zwingmann

6.6.2.3 Additional Material

- *Minutes of the meeting* (pdf [401]), by C. Konz
- *DINA-CH workflow* (pdf [402]), by K. Besseghir
- *DINA-CH and CRONOS: Full tokamak discharge simulator* (pdf [403]), by S. H. Kim

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last update: 2011-02-10 by konz

6.6.3 19-30 March 2012. Garching Code Camp

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last update: 2012-02-08 by egiovan

6.7 Outreach

With the modules in IMP12 coming to a mature level, the project is starting outreach collaborations to promote the use of the ITM tools within EFDA.
A small list of existing outreach collaborations is given below. This list is not necessarily complete but should protocol the ongoing efforts to exploit ITM tools.

6.7.1 Linear MHD Stability Chain at JET

The aim of this effort is to benchmark and verify the ITM modules HELENA and ILSA against the versions of HELENA and MISHKA_1 currently used at JET for linear MHD stability calculations. Replacing the JET tools by the corresponding ITM tools may be considered.

- **Main project contact:** Christian Perez von Thun

[393] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/psi_5_42.mpg
[394] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/comb_psi_5_42.900x400.mpg
[395] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
[396] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/FullTokamakSolvers_20101108_v2.pdf
[397] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/frontiere_DINA.mpg
[398] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[399] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/isoflux_ITER_T53000_5ms.mpg
[400] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/equal_pred_wz04.ppt
[401] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Minutes_FBE_Transport_2010.pdf
[402] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
[403] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_and_CRONOS_working_scheme_and_equations-Kim.pdf

- **ITM Contact:** Christian Konz
- **Start Date:** 03/2010
- **Steps completed so far:**
  - Mapping from JET EFIT equilibrium reconstruction to ITM HELENA equilibrium CPO input
- **Current stage:** testing of ITM linear MHD stability workflow (6.4.2.5.3) using JET mapped data

6.7.2 EQUINOX at Tore Supra

The aim of this effort is to run the ITM tool EQUINOX on Tore Supra data.

- **Main project contact:** Didier Mazon
- **ITM Contact:** Blaise Faugeras
- **Start Date:** 12/2010
- **Steps completed so far:**
  - initial contact
- **Current stage:** project start

6.7.3 EQUAL at Tore Supra

The aim of this effort is to run the ITM tool EQUAL for intershot equilibrium reconstruction on Tore Supra.

- **Main project contact:** Fréderic Imbeaux
- **ITM Contact:** Wolfgang Zwingmann
- **Start Date:** 12/2010
- **Steps completed so far:**
  - initial contact
- **Current stage:** project start

6.7.4 Interfacing the Fixfree code to ETS

The aim of this effort is to use the Fixfree as a Free-Boundary code to be interfaced to the ETS transport solver

- **Main project contact:** Roberto Paccagnella
- **ITM Contact:** Edmondo Giovannozi
- **Start Date:** 4/2011
- **Steps completed so far:**
  - initial contact
- **Current stage:** project start

last update: 2011-04-15 by rpaccagn

6.8 Private IMP12 pages

To access the private IMP12 pages [404], an IMP12 password is needed.

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last update: 2012-01-22 by yadykin

7 IMP3

The Integrated Modelling Project #3 on "Transport Code and Discharge Evolution" plays a central role in the Integrated Tokamak Modelling Task Force (ITM-TF): virtually all the other modelling projects will need information on the plasma state (densities, temperatures etc.) simulated by IMP3 modules; at the same time these modules require data from the other projects' modelling codes, e.g. auxiliary heating deposition profiles. The ultimate goal of the IMP3 activity, and the ITM-TF in general, is whole device modelling, i.e. integrating modelling of all the essential processes relevant for a fusion plasma. Within IMP3 itself the major challenge is to integrate modelling of different transport processes and regions of a fusion device. For instance the core transport needs to be coupled to the edge transport, which in its turn must be integrated with models for the thermal properties of targets etc. Moreover, the developed transport code interfaces must be adapted to incorporate the data structures that provide the necessary information, e.g. sources and sinks, simulated by codes from the other IMPs. In fact, models of different complexity and scope are needed for the ITM-TF, ranging from 0D modelling for fast routine assessments of various scenarios to 2D-3D models that integrate all the relevant regions of a fusion plasma.

7.1 Core Transport Simulator (ETS)

7.1.1 ETS source in FORTRAN

You can checkout the FORTRAN ETS workflow from gforge (29) / project ETS [405] following instructions from ETS User Guide [406]

If you did not use ETS before, first you need to request access to the code via the EFDA ITM Portal [407]by following the GForge tab, following the project ETS [408]and requesting access.

Once you have access to the code, it can be checked out of SVN using

```
svn co https://gforge6.eufus.eu/svn/ets
```

to access the whole repository, or

```
svn co https://gforge6.eufus.eu/svn/ets/trunk/ETS
```

to access just the trunk version of the ETS.

The ETS project on Gforge [409] also includes:

- A wiki [410]
- Some documentation [411]
- Trackers [412]
- News [413]

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404 https://www.efda-itm.eu/IMP12/html/index.html
405 https://gforge6.eufus.eu/project/ets/
406 https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
407 https://gforge6.eufus.eu/
408 https://gforge6.eufus.eu/project/ets/
409 https://gforge6.eufus.eu/project/ets/
410 https://gforge6.eufus.eu/project/ets/wiki/
411 https://gforge6.eufus.eu/project/ets/docman/
412 https://gforge6.eufus.eu/project/ets/tracker/
413 https://gforge6.eufus.eu/project/ets/news/

- Mailing lists [414]
- The SVN repository (web interface) [415]

7.1.2 ETS workflows in KEPLER

The ETS workflow is used for 1-D transport simulation of a tokamak core plasma.
ETS workflows in KEPLER :

- use actors and composite actors from other IMPs, thus for the most recent versions of them please check with relevant project
- complex, but clearly structured workflow, which offers user friendly interface for configuring the simulation
- allow for easy modifications (*connecting new modules, or reconnecting parts of the workflow*) through an easy graphical interface
- provide users with all updates through the version control system
- still in active development tool

There are currently 2 workflows being developed within ITM-IMP3 project:

- ETS_A_4.10b [416] Contact person: denis.kalupin@efda.org?subject=ETS%20in%20KEPLER (Skype: dkalupin) (Status) [417]
- ETS_A_4.10a [418] Contact person: denis.kalupin@efda.org?subject=ETS%20in%20KEPLER (Skype: dkalupin) (Status) [419]
- ETS_C [420] Contact person: vincent.basiuk@cea.fr?subject=ETS%20in%20KEPLERphilippe.huynh@cea.fr?subject=ETS%
[421]

7.1.2.1 ETS_A 4.10b

7.1.2.1.1 Obtaining the ETS

Contact person: denis.kalupin@euro-fusion.org?subject=ETS%20in%20KEPLER (Skype: dkalupin)

7.1.2.1.2 Installing the ETS

The default ETS release is the tag 4.10b10.3 [422]

**Before installation make sure that:*

- you have your private data base for the version of the UAL [423] required by the workflow
- you have the version of KEPLER [424] required by the workflow installed. Quick start on kepler required for the ETS can be found here [425]

[414] https://gforge6.eufus.eu/project/ets/mailman/
[415] https://gforge6.eufus.eu/project/ets/scmsvn/
[416] https://www.efda-itm.eu/ITM/html/ETS_A_KEPLER_4.10b.html
[417] https://www.efda-itm.eu/ITM/html/ets_status.html
[418] https://www.efda-itm.eu/ITM/html/ETS_A_KEPLER_4.10a.html
[419] https://www.efda-itm.eu/ITM/html/ets_status.html
[420] https://www.efda-itm.eu/ITM/html/ETS_C_KEPLER.html
[421] https://www.efda-itm.eu/ITM/html/ets_status.html
[422] https://www.eufus.eu/documentation/ITM/html/ETS_A_4.10a_obtain.html#ETS_A_4.10a_obtain_3
[423] http://portal.efda-itm.eu/twiki/bin/view/Main/UalListOrReleases
[424] http://portal.efda-itm.eu/twiki/bin/view/Main/KeplerListOfReleases
[425] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallMultipleKeplers

- inside the window, where you will be downloading the ETS the source command:

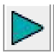
```
        >source $ITMSCRIPTDIR/ITMv1
\textit{Kepler\_Version Data\_Base\_Name UAL\_Version
```

  is executed.

To install your local copy of the ETS workflow please do:

```
>svn co https://gforge6.eufus.eu/svn/keplerworkflows/tags/ets_4.10b10.3/ETS
>cd ETS
>make import_ets
```

Press the play button on the workflow.



The workflow shall run! If it does not, please use the denis.kalupin@euro-fusion.org?subject=ETS%20in%20KEPLER from above.

Starting the workflow: If you have the workflow already installed, there are there are several ways tio execute it:

- For execution via kepler GUI:

```
>kepler.sh workflow_path/workflow_name.xml
```

- For execution in none GUI mode:

```
>kepler.sh -runwf -nogui -redirectgui $ITMHOME/some_dir_name workflow_path/workflow_name.xml
```

- For execution in batch mode:

  it is essential to keep the workflow inside your $ITMWORK area

  it is essential to switch to scripts/R2.2 module

```
>module switch scripts/R2.2
>submit_batch_kepler.sh run_dircetory 1 $ITMWORK/workflow_path/workflow_name.xml $ITMSCRIPTDIR/ba
```

7.1.2.1.3 ETS revisions

Revision Name:	*UAL version:*	*KEPLER version:*	*Short Sumary:*	*Comments:*
4.10b0.1	4.10b8_R2.1.0	any, up to 4.10b3.5	Contains:Fixed boundary equlibrium; Simple transport models; full HCD package; Impurity; Pellets; Sawtooth	Test 4.10b release, restricted module choice, restricted physics capabilities, work around of coredelta
4.10b8.1	4.10b8_R2.1.0	central installation 4.10b3_central [426] is preferred; local installation 4.10b3.6 [427] or above	Contains:Fixed boundary equlibrium; Simple transport models; full HCD package; Impurity; Pellets; Sawtooth; Scenario	Test 4.10b release, restricted module choice, restricted physics capabilities, work around of coredelta, produces scenario output on request

[426] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler
[427] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler

Revision Name:	UAL version:	KEPLER version:	Short Sumary:	Comments:
4.10b10.1	4.10b10	central installation 4.10b3_central [428] is preferred; local installation 4.10b3.6 [429] or above	MODIFICATIONS COMPATIBLE WITH 4.10b10 DATA STRUCTURE	UNDER CONSTRUCTION: release at the Code Camp in Prague
4.10b10.2	4.10b10_branches. R2.1.r1380	central installation 4.10b3_central [430] is preferred; local installation 4.10b3.6 [431] or above	Added synchrotron radiation, some of neo-classical actors,reworked combiners	UNDER CONSTRUCTION: release at the Code Camp in Prague
4.10b10.3	4.10b10_branches. R2.1.r1380	central installation kepler_rc (2.4/R3.8/kepler or more recent) [432] is preferred	Added synchrotron radiation, some of neo-classical actors,reworked combiners	compared to previous shall contain compeeted transport, new controller for pellet and sawteeth module

7.1.2.1.4 Configuring the ETS run

7.1.2.1.5 WORKFLOW PARAMETERS

7.1.2.1.6 General Parameters

- USER - your userid
- MACHINE - machine name (database name) for which comutations are done
- SHOT_IN - input shot number
- RUN_IN - input run number
- SHOT_OUT - output shot number
- RUN_OUT - output run number
- NUMERICAL_SOLVER - choice of the numerics solving transport equations (RECOMENDED SELECTION: 3 or 4)

7.1.2.1.7 Space resolution

- NRHO - number of radial points for transport equations
- NPSI - number of points for equilibrium 1-D arrays
- NEQ_DIM1 - number of points for equilibrium 2-D arrays, first index
- NEQ_DIM2 - number of points for equilibrium 2-D arrays, second index
- NEQ_MAX_NPOINTS - maximum number of points for equilibrium boundary

7.1.2.1.8 Time resolution

Start and End time:

- TBEGIN - Computations start time
- TEND - Computattions end time

[428] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler
[429] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler
[430] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler
[431] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler
[432] http://portal.efda-itm.eu/twiki/bin/view/Main/InstallANewVersionOfKepler

Time step:

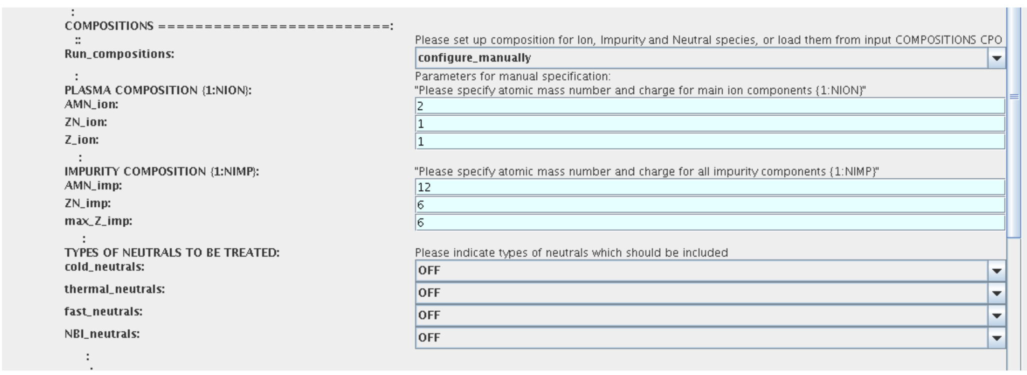
- right click on the box **BEFORE THE TIME EVOLUTION**
- select *Configure actor*
- TAU :specify value of the time step in [s]
- TAU_OUT : specify value of the output time interval in [s]
- *Commit*

7.1.2.1.9 ION, IMPURITY and NEUTRAL COMPOSITION

Before starting the run you need to define types of main ions, impurity (optional) and neutrals (optional) to be included in simulations.

To define plasma composition:

- right click on the box **BEFORE THE TIME EVOLUTION**
- select ***Configure actor***
- choose one of modes for setting *Run_compositions*
  - from_input_CPO - will pick up the COMPOSITIONS structure of the COREPROF CPO saved to the input shot;
  - configure_manually - will force the composition from the values specified below
- specify values of atomic mass (AMN_ion), nuclear charge (ZN_ion) and charge (Z_ion , from the first ion to the last [1:NION] , separated by commas
- (optional) specify values of atomic mass (AMN_imp), nuclear charge (ZN_imp) and maximal ionization state (max_Z_imp) for impurity ions, from the first to the last [1:NIMP] , separated by commas
- (optional)for neutrals activate, by switchen them to ***ON*** , the types which shall be followed by neutral solver
- press ***Commit***



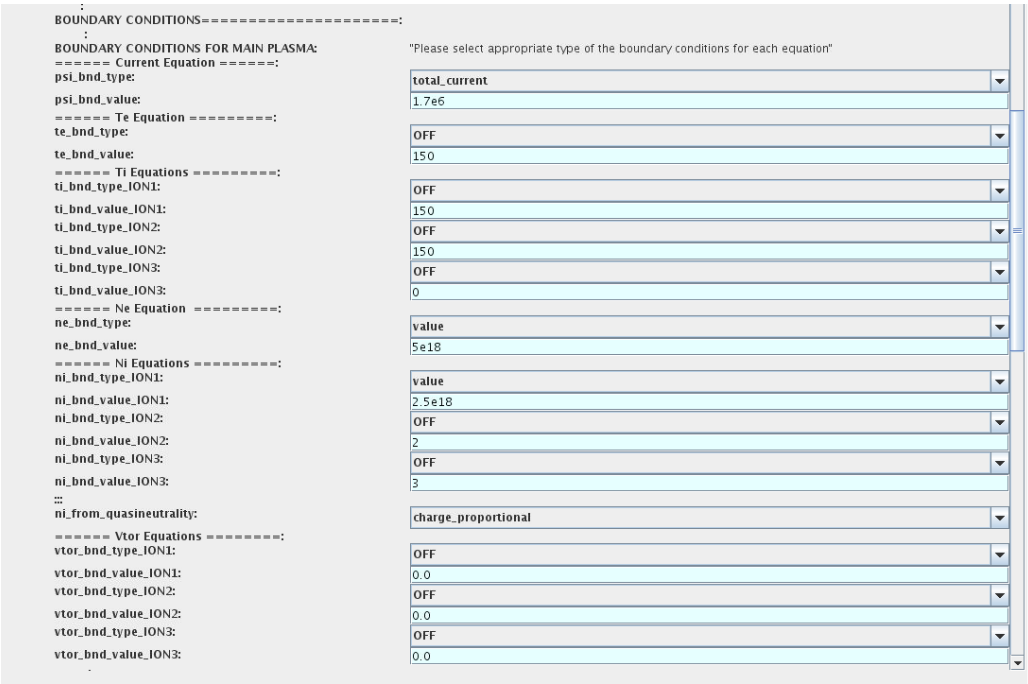
7.1.2.1.10 EQUATIONS TO BE SOLVED AND BOUNDARY CONDITIONS

7.1.2.1.11 Main Plasma

Before starting the run you need to select the type and value of the boundary conditions for all equations. Please note that the value should correspond to the type. All equations allow for following types of boundary conditions:

- *OFF* - equation is not solved, initial profiles will be kept for whole run
- *value* - edge value should be specified
- *gradient* - edge gradient should be specified
- *scale_length* - edge scale length should be specified
- *generic* - generic form: a1*y + a2*y = a3 of the boundary condition is assumed, 3 coefficients (a1 , a2 , a3) should be provided
- *value_from_input_CPO* - equation is solved, edge value evolution will be red from input shot
- *profile_from_input_CPO* - equation is not solved, profile evolution will be red from input shot

The particular equation will be activated if the boundary condition type for it is other than *OFF*



To set up boundary conditions:

- right click on the box **BEFORE THE TIME EVOLUTION**
- select ***Configure actor***
- select appropriate boundary condition for each equation
- specify values for boundary conditions corresponding to the type and to the ion component
- ***Commit***

The workflow will not allow the user all particle components (ions[1:NION]+electrons) to be run predictively. At least one of them shall be set to OFF (this component will be computed from quasi-neutrality condition).

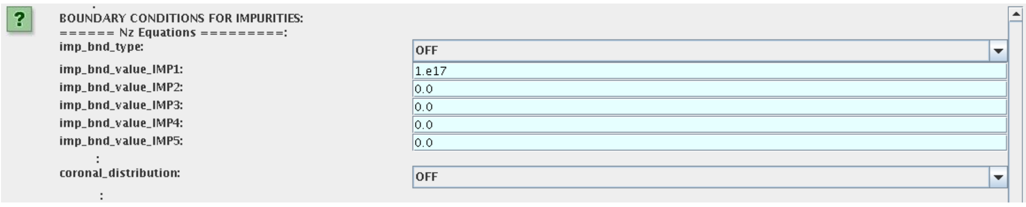
!!! If electron density is solved, all ions with ni_bnd_type=OFF will be computed from the quasineutrality condition and scaled proportional to specified *ni_bnd_value* or inversely proportional to their charge, *charge_proportional* . This is defined by option: *ni_from_quasineutrality* .

7.1.2.1.12 Impurity

You can set up the boundary conditions for impurity ions in a similar way as for main ions.
!!! Note, that at the moment only types: *OFF* ; *value* and *value_from_input_CPO* are accepter by impurity solver.

To set up boundary conditions:

- right click on the box **BEFORE THE TIME EVOLUTION**
- select ***Configure actor***
- select appropriate boundary condition for each impurity species (OFF -equation is not solved)
- specify values for boundary density of each impurity component [1:MAX_Z_IMP] , separated by commas
- ***Commit***



Interface for impurity boundary condition has additional option, *coronal_distribution* , that allow to preset the edge values or entire profiles of individual ionization states from coronal distribution. In tis case only single value is required to be specified for each impurity boundary value.
The options are:

- *OFF* - the boundary values for impurity densities will be as they are specified above;
- *boundary_conditions* - the boundary densities will be renormalized with corona, using the first element from above as a total density
- *boundary_conditions_and_profiles* - the boundary densities and starting profiles will be renormalized with corona, using the first element from above as a total density

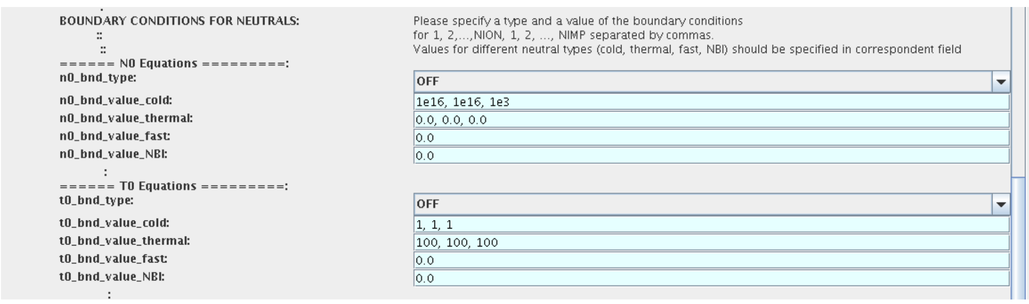
7.1.2.1.13 Neutrals

!!! AT THE MOMENT BOUNDARY CONDITIONS FOR NEUTRAL VELOCITIES ARE DISABLED, MIGHT BE ADDED ON REQUEST

Note, that ALL values should be specified in the order: { *1, 2, 3 ...NION, 1, 2, 3, ...NIMP* }

To set up boundary conditions:

- right click on the box **BEFORE THE TIME EVOLUTION**
- select ***Configure actor***
- select appropriate boundary condition for each neutral species (OFF -equation is not solved)
- specify values for boundary density and temperature of each neutral component [1, 2, 3 ...NION, 1, 2, 3, ...NIMP] , separated by commas
- ***Commit***



7.1.2.1.14 Input profiles interpolation

You are going to start the ETS run from some input shot, which might contain some conflicting rho grids saved to different CPOs.
Thus there is a choice for the user to decide on the grid on which the starting profiles should be load by the worflow, *Interpolation_of_input_profiles* .

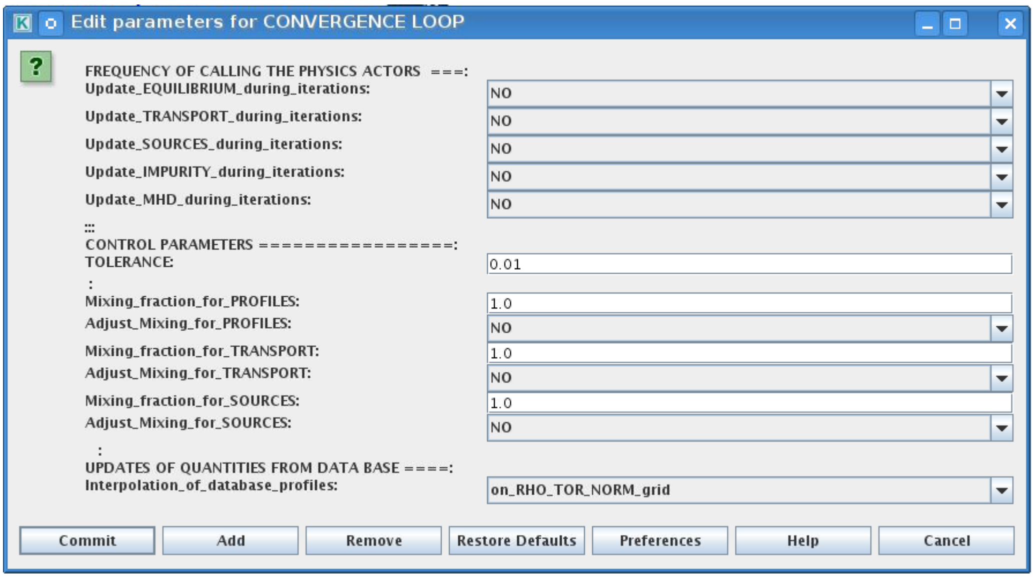
To define the interpolation grid select:

- *on_RHO_TOR_grid* - interpolate input profiles based on the grid specyfied in [m];
- *on_RHO_TOR_NORM_grid* - interpolate input profiles based on normalised rho grid [0:1]

7.1.2.1.15 CONVERGENCE LOOP

ETS updates input from different physics actors in a sequence, which is finished by solving the transport equations. Ther are possible none-linear couplings between different parts of the system. These nonelinearities are trited by the ETS using iterations.
The decision to step in time is made by the ETS based on the criteria that the maximum relative deviation of main plasma profiles is lower than some predefined tolerance.
There is a number of settings and sitches in the ETS that are used by the iterative scheme. To edit them do:

- right click on the box **CONVERGENCE LOOP**
- select ***Configure actor*** to edit settings
- choose your settings
- ***Commit***



Switches in the field *FREQUENCY OF CALLING THE PHYSICS ACTORS* define how many times the the actors of a certain cathegory (equilibrium, transport, etc.) should be called in a single time step.
By selecting ***YES*** all actors of this cathegory will be called every iteration
By selecting ***NO*** all actors of this cathegory will be called only ones in a time step

Switches and parameters in the field *CONTROL PARAMETERS* define how iterations are done

- *Tolerance* - defines the maximum relative error of profiles change compared to previous iteration. If it is achieved the time steping is done.

For highly none-linear case the required precision can be achieved faster by the iterative scheme if only fraction of the new solution is mixed to the previous state.
The following scheme is adopted by the ets to reduce none-linearities in profiles, transport coefficients and sources:

```
Y = (Amix * Y+) + ((1-Amix)*Y-)
```

where Amix is the mixing fraction

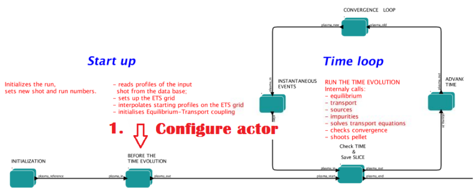
You can activate the mixing of profiles, transport coefficient and sources by selecting the corresponding *Mixing_fraction_...* to be between [0:1]
You also can activate the authomatic ajustment of this fraction by selecting: *Ajust_Mixing_for_...* to ***YES***

7.1.2.1.16 EQUILIBRIUM

7.1.2.1.17 Initialization Settings

Before starting the run you need to set up your initial equlibrium. There are several options to do it: if your input shot contains the consistent equilibrium with all necessary parameters - you can start immediately from it; if your input shot contains the equilibrium but it is not consistent or some parameters are missing you can check it automatically; if your input equilibrium is corrupt or not present - you can define the starting equlinbrium by tree moment description. To select your starting equilibrium please do:

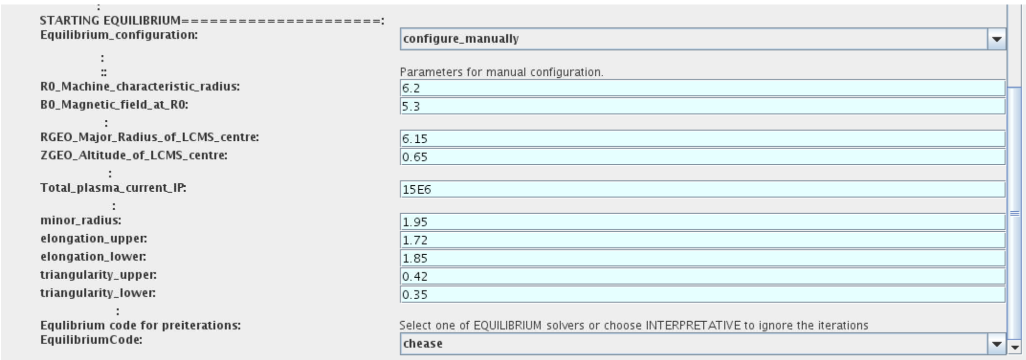
- right click on the box **BEFORE THE TIME EVOLUTION**
- select ***Configure actor*** to edit settings
- Select your settings or specify values
- ***Commit***



SETTINGS:

- *Equilibrium_configuration* - select *configure_manually* if you like to specify configuration below; select *from_input_CPO* if all quantities should be picked up from the input CPO
- *R0_Machine_characteristic_radius* - Characteristic radius of the machine, here B0 is measured [m]
- *B0_Magnetic_field_at_R0* - Magnetic field measured at the position R0 [T]
- *RGEO_Major_Radius_of_LCMS_centre* - R coordinate of the geometrical centre of the LCMS [m]
- *ZGEO_Altitude_of_LCMS_centre* - Z coordinate of the geometrical centre of the LCMS [m]
- *Total_plasma_current_IP* - plasma current within the LCMS [A]
- *Minor_radius* - minor radius of the LCMS [m]
- *Elongation* - elongation of the LCMS [-]
- *Triangularity_upper* - upper triangularity of the LCMS [-]
- *Triangularity_lower* - lower triangularity of the LCMS [-]

- *Equilibrium code* - select one of available equilibrium solvers to check the consistency between starting equilibrium and current profile; use *INTERPRETATIVE* if you trust your input data (in this case the check will be ignorred).

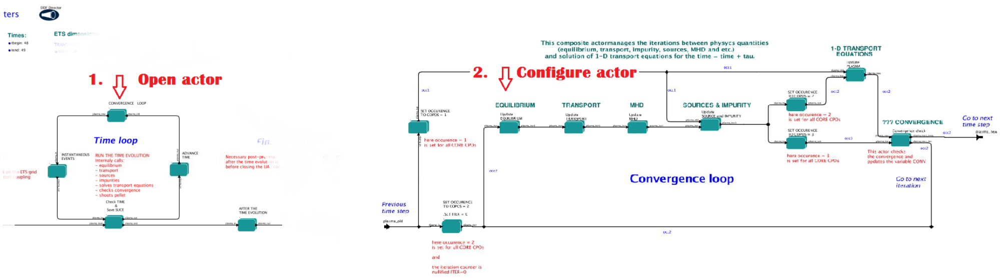


Please note, that different equilibrium solvers might require slightly different input. Thus it is a user responsibility to check that the information inside input shot/run is enough to run selected equilibrium solver.

7.1.2.1.18 Run Settings

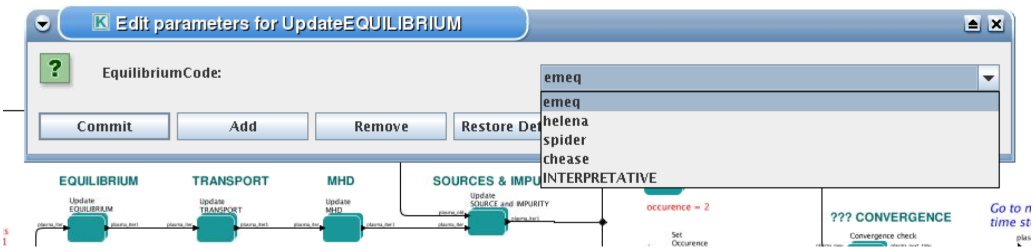
There are several equilibrium solvers connected to the ETS. You can select the one of them.Therefore please do:

- right click on the box **CONVERGENCE LOOP**
- select ***Open actor***
- right click on the box **EQUILIBRIUM**
- select ***Configure actor*** to edit settings
- choose your equilibrium solver
- ***Commit***



INTERPRETATIVE means that the ETS will not update the equilibrium, instead it will be using the initial equilibrium.

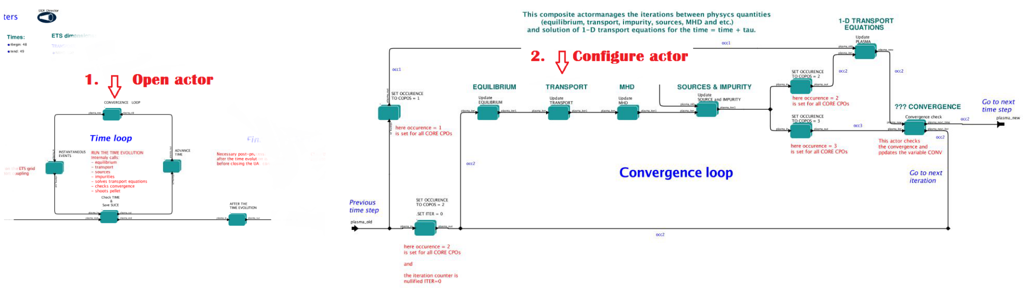
Please note, that it is better to select the same code as you used for pre-iterrations. Because outputs of different equilibrium solver are not necessary done with the same resolution. Therefore the routine saving the information to the data base might brake due to uncompatible sizes of some signals.



7.1.2.1.19 TRANSPORT

The settings for TRANSPORT can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

- right click on the box **CONVERGENCE LOOP**
- select *Open actor*
- right click on the box **TRANSPORT**
- select *Configure actor* to edit settings
- choose your settings
- press *Commit*



7.1.2.1.20 Transport models

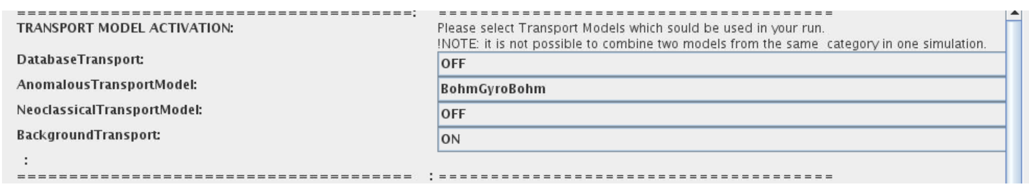
ETS constructs the total transport coefficients from the combination of Anomalous transport (model choice), Neoclassical transport (model choice), Database transport (transport coefficients be saved to the input shot) and Background transport (Transport coefficients defined through the GUI interface)

D_tot = D_DB*M_DB + D_AN*M_AN + D_NC*M_NC + D_BG*M_BG

You should choose from the list of available models in each cathegory or switch it ***OFF***

Individual multipliers for all channels shall be specified on the lower level through the code parameters of **Transport Combiner**

The list of available transport models can be found here [433].

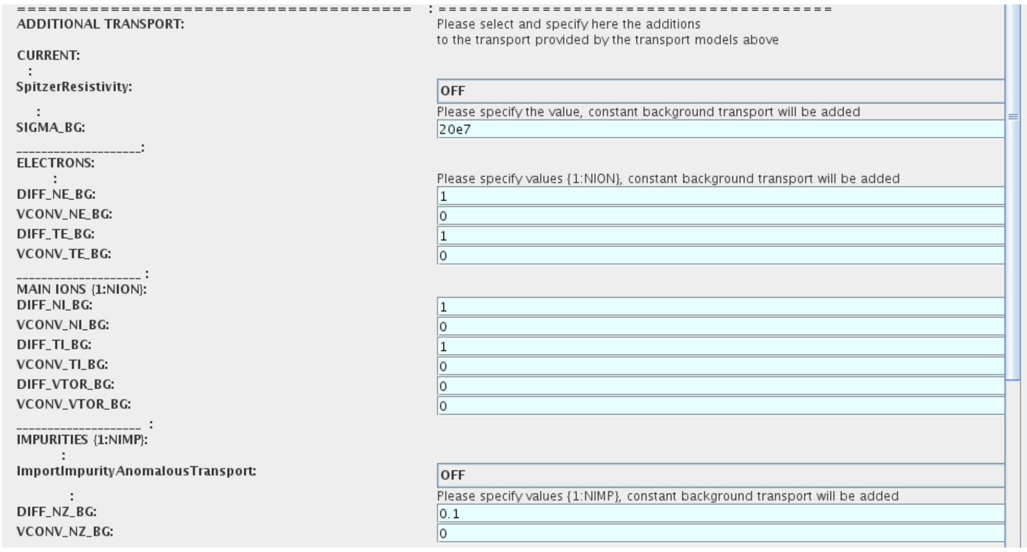


TRANSPORT MODEL ACTIVATION:	Please select Transport Models which sould be used in your run. !NOTE: it is not possible to combine two models from the same category in one simulation.
DatabaseTransport:	OFF
AnomalousTransportModel:	BohmGyroBohm
NeoclassicalTransportModel:	OFF
BackgroundTransport:	ON

7.1.2.1.21 Background transport

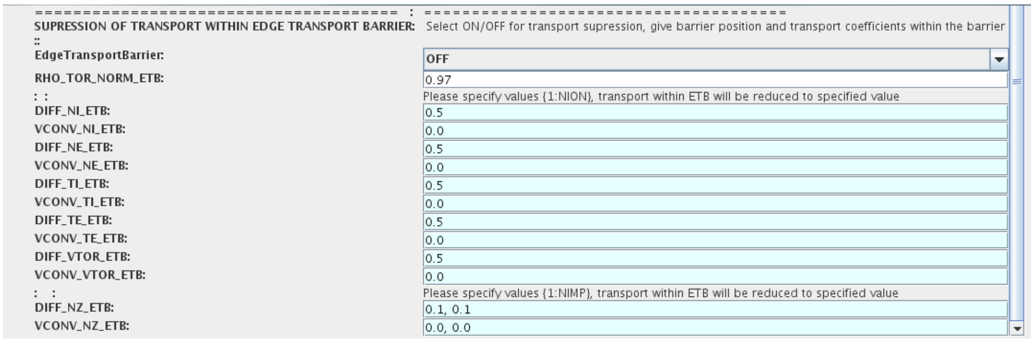
You can add the constant background level for each coefficient (ion and impurity coefficients are expected to be the strings of [1:NION] and [1:NIMP] elements respectively, separated by commas)

433 https://www.eufus.eu/documentation/ITM/html/ets_status.html



7.1.2.1.22 Edge transport barrier

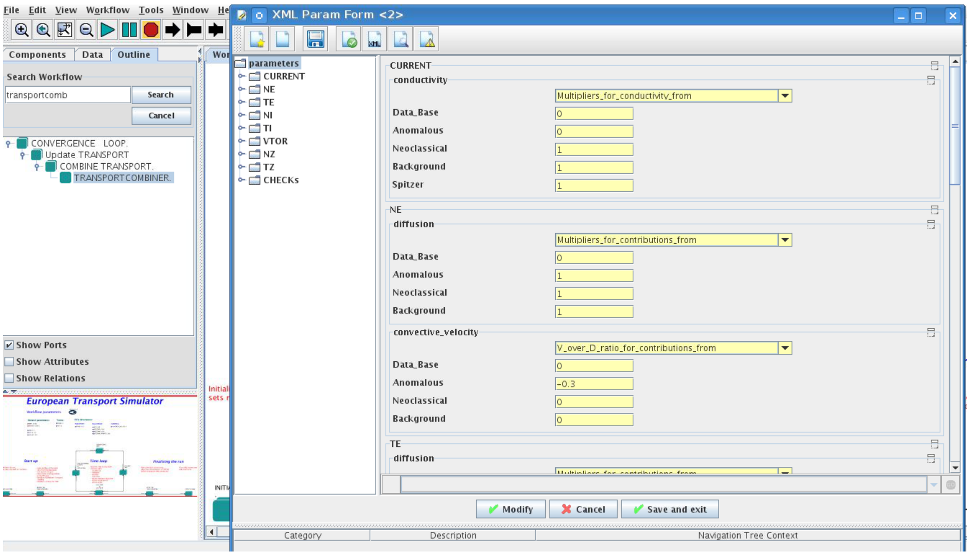
In this section you can artificially supress the transport outside of specified *RHO_TOR_NORM_ETB* . Total transport coefficients for all transport channels (ne, ni, nz, Te, Ti,...) will be reduced to constant values specified below (ion and impurity coefficients are expected to be the strings [1:NION] and [1:NIMP] respectively)



7.1.2.1.23 Total transport coefficients

The fine tuning of of transport coefficients can be done through editing the XML code parameters of the ***transport combiner*** actor:

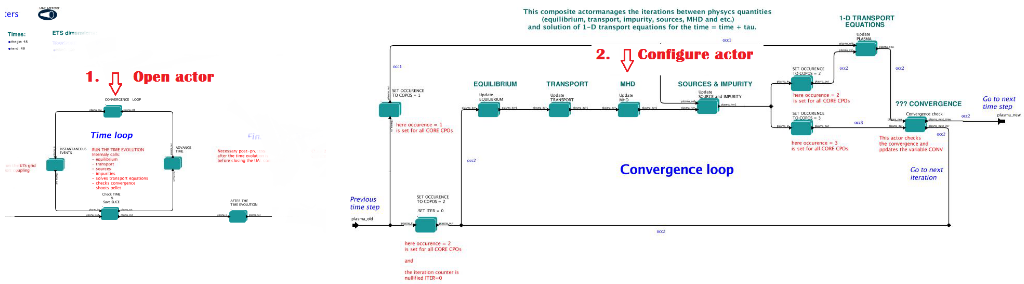
- In *Outline* browse for **transportcombiner**
- select ***Configure actor***
- click ***Edit Code Parameters***
-
  - If you select ***OFF*** contributions from all transport models to this channel will be nullified;
  - If you select ***Multipliers_for_contributions_from*** the transport channel will be activated, and the total transport coefficient will be combined from active tranport models. You gust need to specify multiplier against each channel;
  - For convective velocity there is an additional option ***V_over_D_ratio_for_contributions_from*** . With this option selected the combiner will ignore the convective components provided by transport models. The convective velocity will be determined from the diffusion coefficient by applying fixed V/D ratio (*for inward pinch the values should be negative!*).
- ***Save and exit***
- ***Commit***



7.1.2.1.24 MHD

The settings for MHD type of events can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

- right click on the box **CONVERGENCE LOOP**
- select ***Open actor***
- right click on the box **MHD**
- select ***Configure actor*** to edit settings
- choose your settings
- ***Commit***

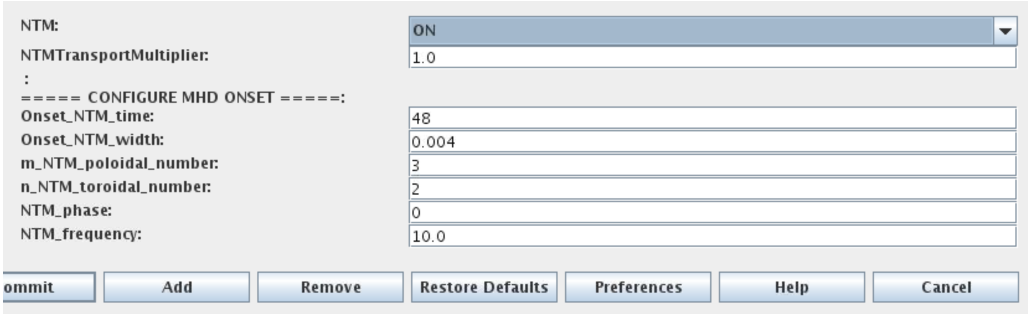


At the moment ETS allows only for NTM to be activated. The sawtooth module is expected to be deployed before ITM Code Camp in Slovenia.

User can ajust the following NTM settings:

- NTM *ON* means that ETS will add the NTM driven transport to the total transport coefficient; *OFF* -ignored
- NTMTransportMultiplier the transport contrinution from NTM will be multiplied with this value
- Onset_NTM_time - activation time for the NTM mode
- Onset_NTM_width - starting width of the mode
- m_NTM_poloidal_number
- n_NTM_toroidal_number
- NTM_phase

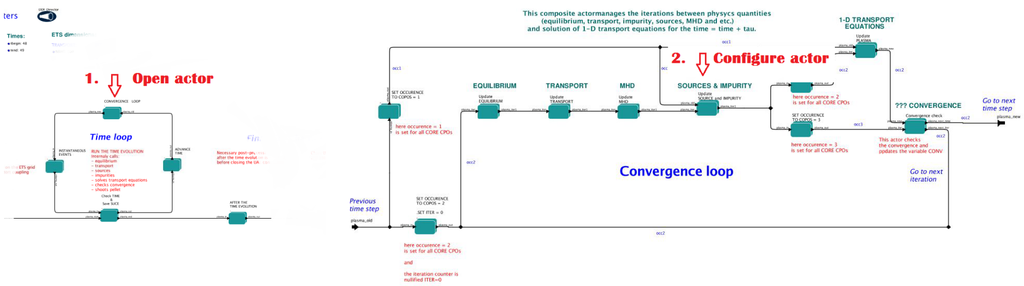
- NTM_frequency



7.1.2.1.25 SOURCES AND IMPURITY

The settings for SOURCES AND IMPURITY can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

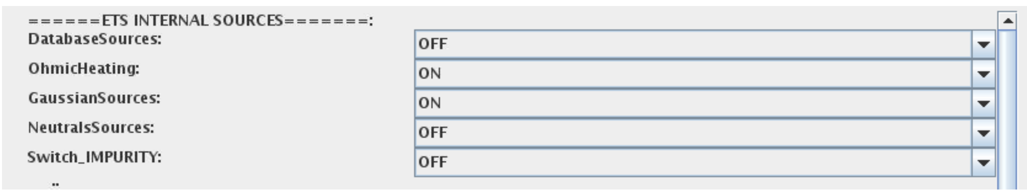
- right click on the box **CONVERGENCE LOOP**
- select *Open actor*
- right click on the box **SOURCES AND IMPURITY**
- select *Configure actor* to edit settings
- choose your settings
- *Commit*



7.1.2.1.26 Analytical & Impurity sources

There is a number of sources developed by IMP3 project, which are actors or internal routines of the transport solver. You can activate them by selecting *ON / OFF* in front of corresponding source:

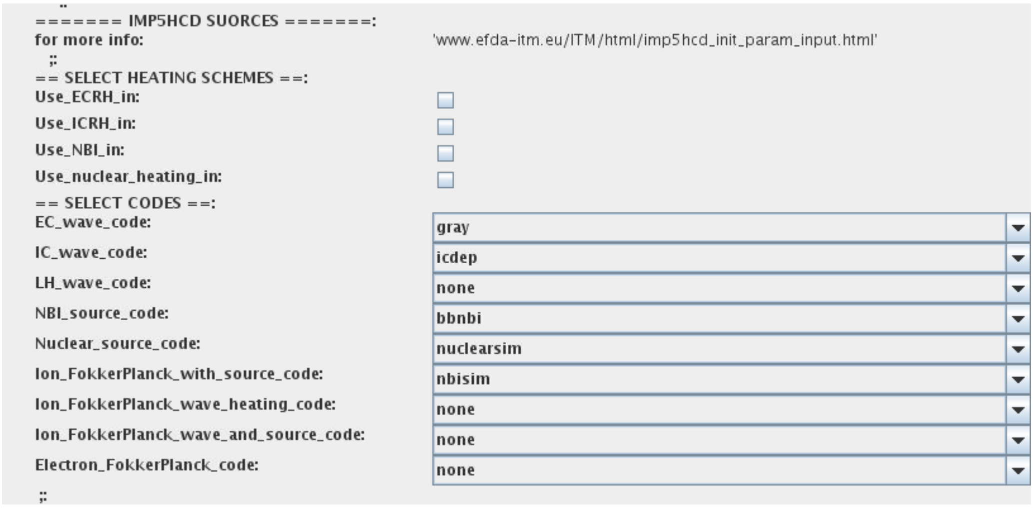
- Database Sources *ON* - ETS will pick up the evolution of source profiles saved to your input shot/run; *OFF* -ignored
- Ohmic Heating *ON* - ETS will compute Ohmic heating internaly; *OFF* -ignored
- Gaussian Sources *ON* - ETS will add sources from the Gaussian source actor (you can configure heat and particle deposition profiles by editing the code parameters of the actor); *OFF* -ignored
- Neutral Sources *ON* - Fluid neutrals will be solved according to the boundary conditions specified on Before_time_evolution composite actor interface; *OFF* -ignored
- Switch_IMPURITY *ON* - Impurity density and radiative sources will be computed; *OFF* -ignored; *INTERPRETATIVE* profiles of impurity density will be read from input shot/run



7.1.2.1.27 HCD sources

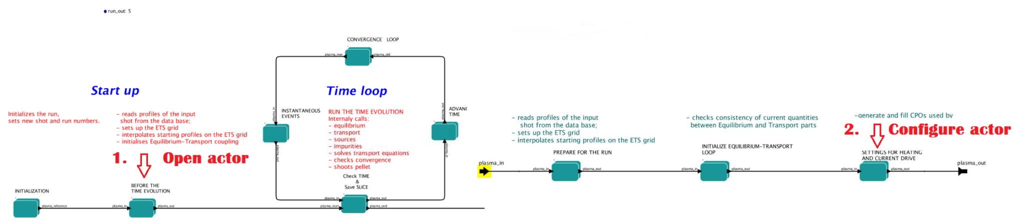
There is a number of sources developed by HCD project, that are incorporated by the ETS workflow.

For the HCD sources please activate the type of heating source, by ticking the box in front of it, and select the code to simulate it.



You also need to configure initial IMP5HCD settings. Therefore please:

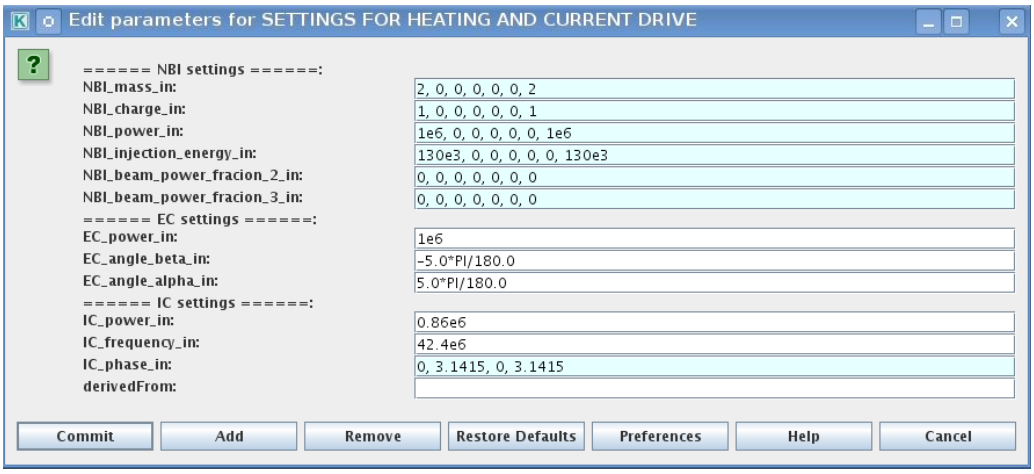
- right click on the box **BEFORE THE TIME EVOLUTION**
- select *Open Actor*
- right click on the box **SETTINGS FOR HEATING AND CURRENT DRIVE**
- select *Configure actor*
- edit the stettings
- *Commit*



The detailed information on initial IMP5HCD settings can be found here [434].

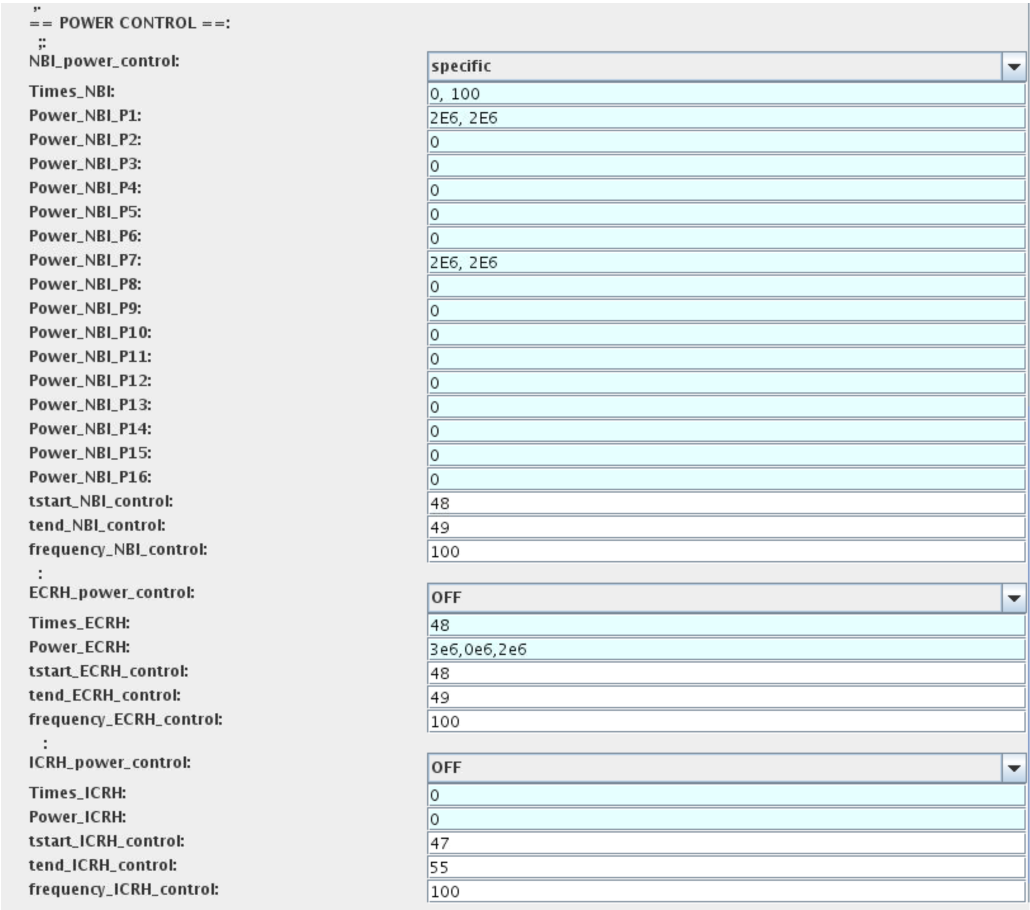
Please note that settings for NBI are done independent for each PINI. Therefore, for NBI settings, please insert the values separated by commas. The number of the element in the array corresponds to the number of activated PINI. Maximum accepted number of PINIs = 16.

[434] https://www.eufus.eu/documentation/ITM/html/imp5_imp5hcd.html



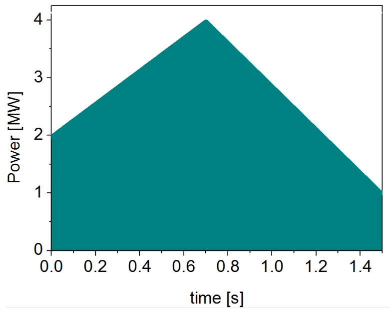
7.1.2.1.28 Power control

You also can activate the power control for the IMP5HCD sources.

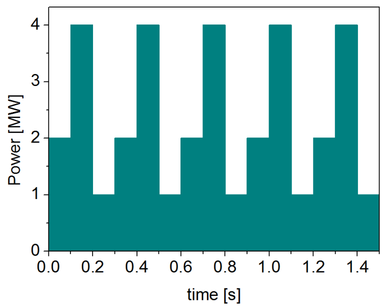


If the POWER_CONTROL is not ***OFF***, there are two modes of operation: ***specific*** and ***frequency***

For ***specific*** you should specify the time sequence separated by commas and the corresponding power sequence (where first power level corresponds to the first time, second to second and etc.). Linear interpolation will be done between the sequence points.
For example: if you give the power ***sequence*** = 2e6,4e6,1e6 and ***times*** = 0.0, 0.7, 1.5 (s) the delivered power would be:



For *frequency* you should specify the power levels sequence separated by commas, start and end time of the power control and the frequency of switching between these levels.
For example: if you give the power *sequence* = 2e6,4e6,1e6 and *frequency* = 10 (Hz) *tstart* = 0.0 (s) *tend* = 1.5 (s) the delivered power would be:



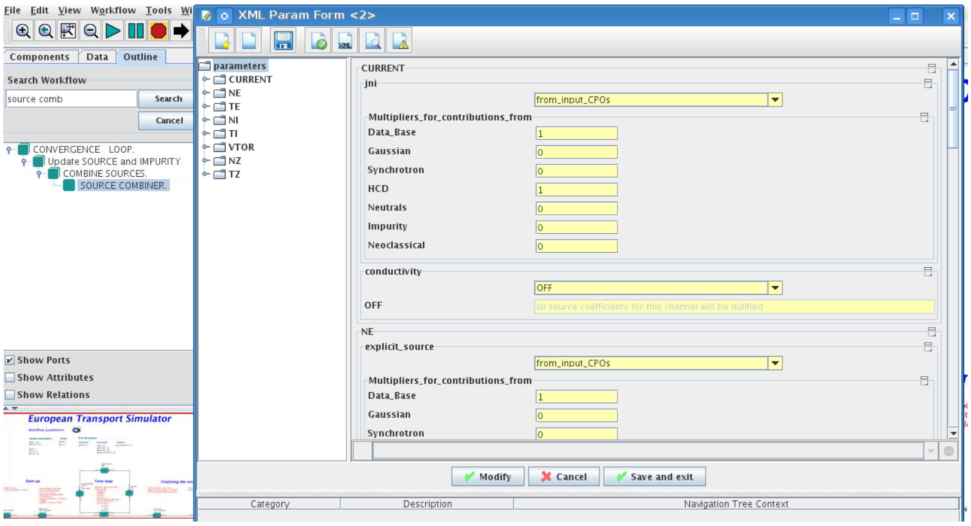
7.1.2.1.29 Total power

Profiles of the total source for each channel are obtained from the the individual contributions (Data Base, Gaussian, Neutrals, Impurity and HCD) as a summ of all activated sources multiplied with coefficients specified on the interface of the composite actor.

S_tot = S_DS*DSM + S_GS*GSM + S_Neu*NeuSM + S_IMP*IMPSM + S_HCD*HCDSM

The fine tuning of of sources can be done through editing the XML code parameters of the source combiner actor:

- In the *Outline* browse for **source combiner**
- select ***Configure actor***
- click ***Edit Code Parameters***
- If you like the sources to the particular equation being activated - select ***from_input_CPOs***, and then, put the multipliers against each contribution; if you select ***OFF*** contributions from all sources to this channel will be nullified.
- save and exit
- ***Commit***



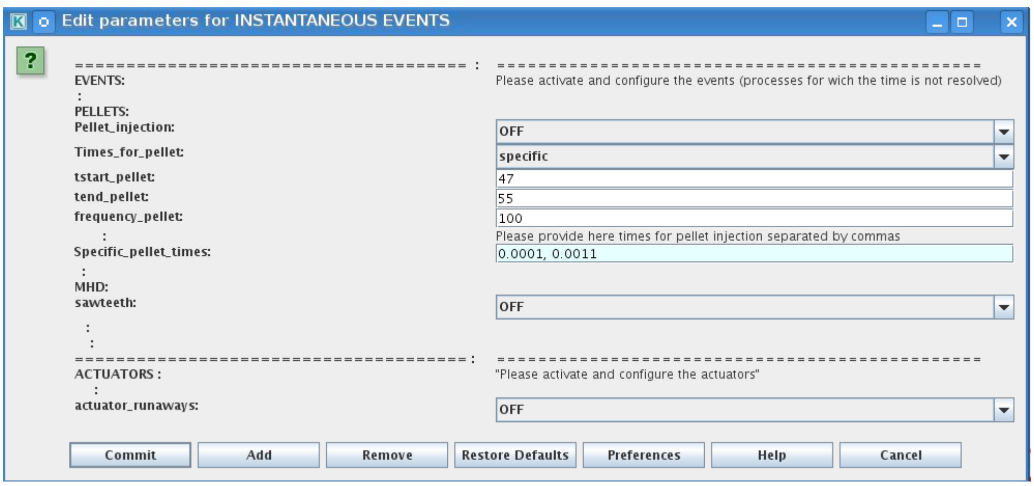
7.1.2.1.30 INSTANTANEOUS EVENTS & ACTUATORS

At the moment, user can swith *ON* and *OFF* two types of events: PELLET and SAWTOOTH

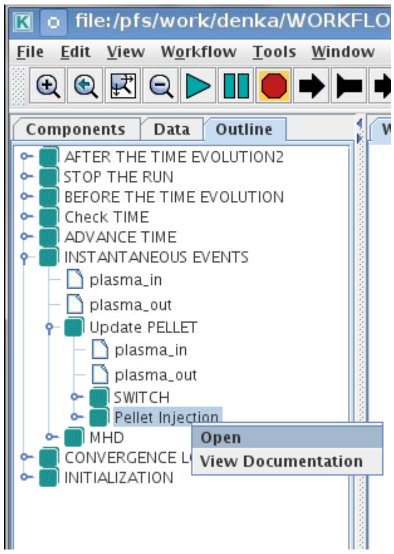
7.1.2.1.31 Pellet

At the top level of the workflow you can configure times for pellet injection

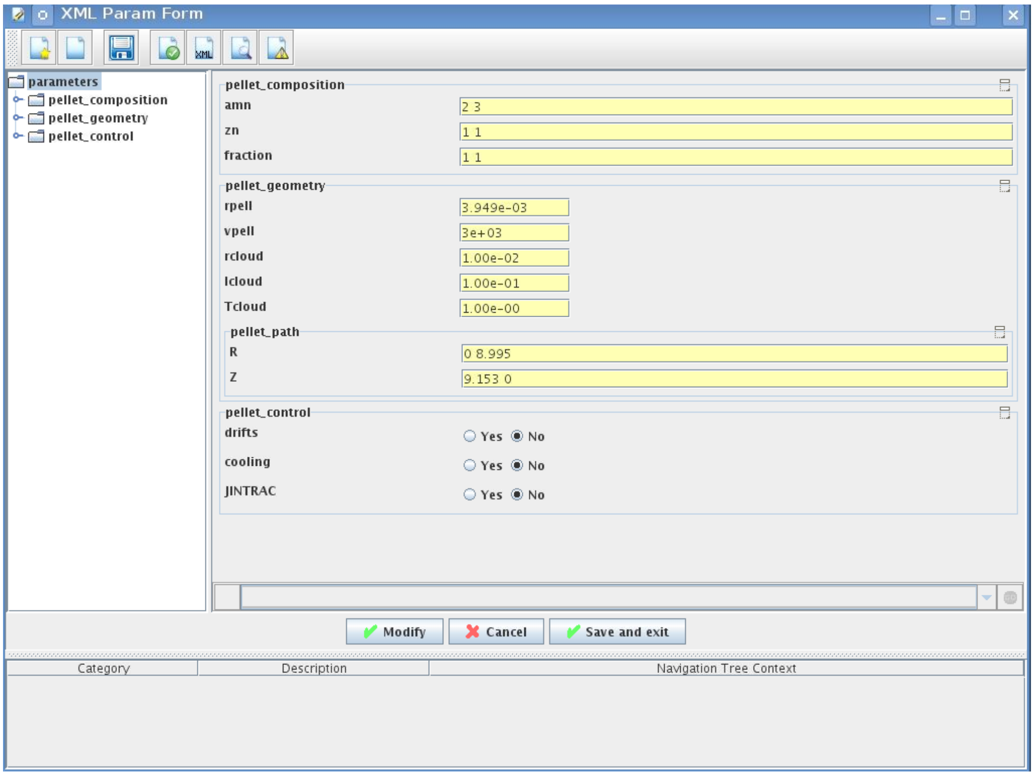
- right click on the box **INSTANTANEOUS EVENTS & ACTUATORS**
- select ***Configure actor*** to edit settings
- Select Pellet_injection equal *ON* if you like to use pellet in your simulation
- Select mode of operation:
  - Times_for_pellets equals *specific* - pellets will be shut at exact times specified in array times_pellet
  - Times_for_pellets equals *frequency* pellets will be shut from tstart_pellet until tend_pellet with a frequency_pellet
- ***Commit***



Parameters of individual pellet need to be configured through the code_parameters of the PELLET actor. To access it go to ***Outline*** on the right upper corner and open the following:



- right click on the actor **PELLET**
- select *Configure actor*
- click *Edit Code Parameters*
- edit parameters and click *save and exit*
- *Commit*



amn   atomic mass number: array of elements separated by space (1:nelements) [-]

zn   nuclear charge: array of elements separated by space (1:nelements) [-]

fraction   fraction of each element in the pellet, based on the number of atoms: array of elements separated by space (1:nelements) [-]

rpell   radius of the pellet [m]

vpell   velocity of the pellet [m/s]

rcloud   radius of the pellet cloud [m], radial extension of the cloud = 2*rp0 lcloud length of the pellet cloud along the field line [m]

Tcloud temperature of the pellet cloud [eV]

Pellet path is specified by two points, for which R and Z coordinated should be specified

R R coordinates of the pivot and second points of the pellet path, separated by space [m]

Z Z coordinates of the pivot and second points of the pellet path, separated by space [m]

Control switches allow to activate:

- drifts - YES - will activate radial displacement of deposition profile, same for all path points
- cooling - YES - will activate cooling of the other side of the plasma due to parallel heat transport (essential for large pellets, which might cross the same flux surface twice)
- JINTRAC - YES - will provide temperature reduction consistent with the model used in JETTO

7.1.2.1.32 Sawtooth

At the top level of the workflow you can switch ON/OFF possible MHD events

- right click on the box **INSTANTANEOUS EVENTS & ACTUATORS**
- select ***Configure actor*** to edit settings
- Select SAWTOOTH ***ON*** if you like to use them in your simulation
- ***Commit***

7.1.2.1.33 Actuators

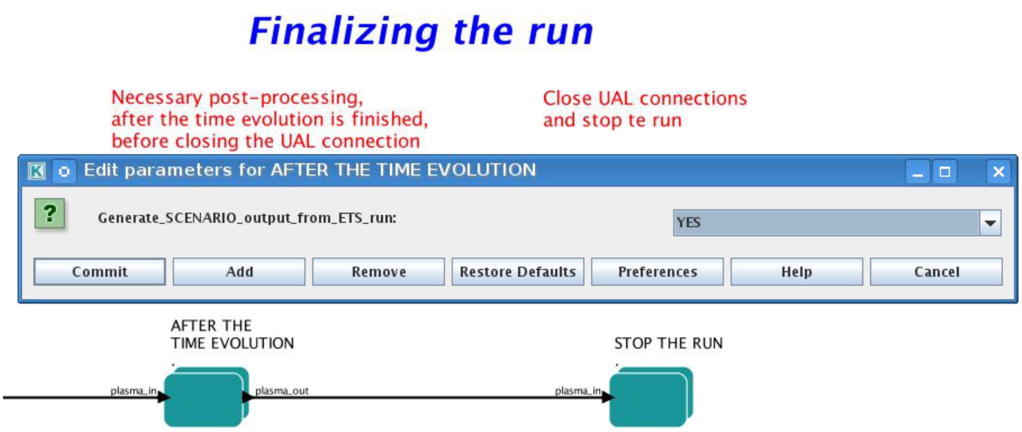
At the top level of the workflow you can switch ON/OFF actuator for runaways

- right click on the box **INSTANTANEOUS EVENTS & ACTUATORS**
- select ***Configure actor*** to edit settings
- Select actuator_runaways ***ON*** if you like to use them in your simulation
- ***Commit***

7.1.2.1.34 SCENARIO OUTPUT

You can summarize the ETS run by activating the output to SCENARIO CPO (as post-processing of the run). To activate the SCENARIO output:

- right click on the box **AFTER THE TIME EVOLUTION**
- select ***Configure actor***
- select Generate_SCENARIO_output_from_ETS_run equal ***YES***
- ***Commit***



7.1.2.1.35 VISUALIZATION

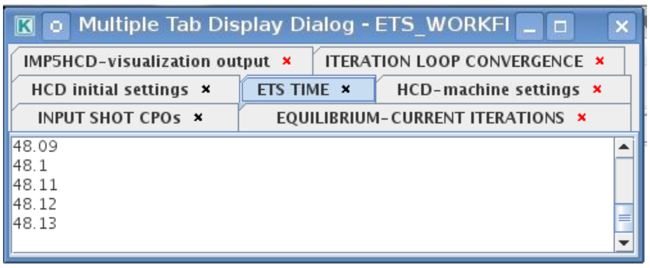
There is a number tools visualizing the ETS run.

7.1.2.1.36 Multiple Tab Display

The display appeares automaticaly when the ETS workflow is launched. It displays diagnostic text messages from the workflow on following topics:

- Input data statement
- Iterations to check the initial convergence between EQUILIBRIUM and CURRENT
- Time evolution
- Convergence of iteratinos within the time step
- IMP5HCD settings
- Power used by IMP5HCD actors durung the run

Also the error messages from execution of the workflow will be displayed here.



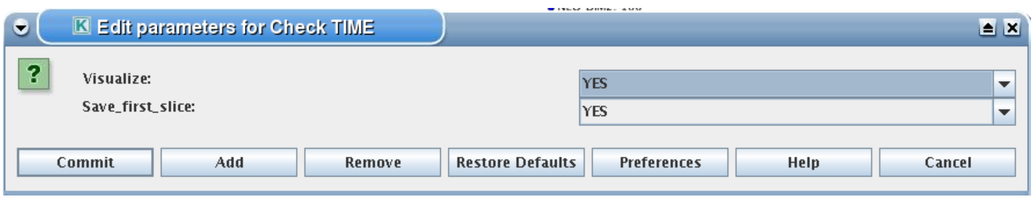
7.1.2.1.37 Python Visualization Display

Please note, if you plan to use python based vizualization ***nomatlab*** argument is essential by the opening of the workflow.

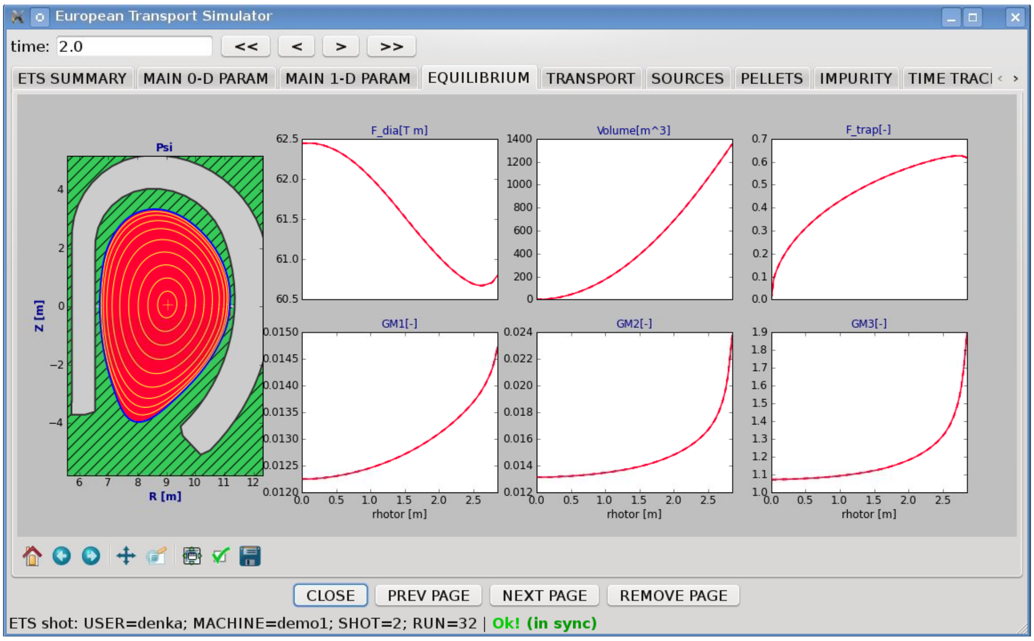
```
>kepler.sh nomatlab workflow_path/workflow_name.xml
```

You can activate the graphical visualization of your run evolution:

- right click on the box **Check Time & Save Slice**
- select ***Configure actor***
- select visualisation ***YES*** or ***NO***
- ***Commit***



Then evolution of main discharge parameters will be shown in this window:



7.1.2.1.38 LIST OF ACTORS

UNDER DEVELOPMENT

7.1.2.1.39 Equilibrium actors

Code name	Code Category	Contact persons	Short description
chease	Grad-Shafranov solver	Olivier Sauter	Chease is a fixed boundary Grad-Shafranov solver based on cubic hermitian finite elements see [H. Lütjens, A. Bondeson, O. Sauter, Computer Physics Communications 97 (1996) 219-260 [435]]
emeq	-	-	
spider	-	-	

7.1.2.1.40 Core transport actors

Code name	Code Category	Contact persons	Short description
ETS	Transport solver	Denis Kalupin	
BohmGB	Bohm/gyro-Bohm transport coefficients	-	
TCI/Weiland	Transport coefficient from drift wave turbulence	Pär Strand	
TCI/GLF23	Transport coefficient from drift wave turbulence	-	
TCI/RITM	Transport coefficient from drift wave turbulence	-	
TCI/MMM (not yet in ETS)	Transport coefficient from drift wave turbulence	-	
TCI/EDWM (not yet in ETS)	Transport coefficient from drift wave turbulence	-	

[435] https://crppwww.epfl.ch/~sauter/chease/Lutjens_CHEASE_CPC96.pdf

Code name	Code Category	Contact persons	Short description
nclass (not yet in ETS)	Neoclassical transport coefficients	Pär Strand	
neos (not yet in ETS)	Neoclassical transport coefficients	Olivier Sauter	
neowesz	Neoclassical transport coefficients	Bruce Scott	Neoclassical transport coefficients based on the expression in John Wesson's book Tokamaks.
neoartz	Neoclassical transport coefficients	Bruce Scott	
spitzer			
ETBtransport			
coronal			
synchrotronsources			

7.1.2.1.41 Edge transport actors

7.1.2.1.42 Heating and current drive actors

Code name	Code Category	Contact persons	Short description
gray (9.4.1.1)	EC/waves	Lorenzo Figini	GRAY is a quasi-optical ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks. Code-parameter documentation can be found here [436].
travis (9.4.1.1)	EC/waves	Nikolai Marushchenko and Lorenzo Figini	Travis is a ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks.
Torray-FOM (9.4.1.1)	EC/waves	Egbert Westerhof	Torray-FOM is a ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks.
bbnbi (9.4.2.3)	NBI/source	Otto Asunta	Calculate the deposition rates of neutrals beam particles, i.e. the input source for Fokker-Planck solvers (not the heating and current drive). Note that the number of markers generated by BBNBI is described by the kepler variable `number_nbi_markers_in` .
nemo (9.4.2.3)	NBI/source	Mireille Schneider	Calculate the deposition rates of neutrals beam particles, i.e. the input source for Fokker-Planck solvers (not the heating and current drive). Code-parameter documentation can be found here [437].
nuclearsim (9.4.2.4)	nuclear/source	Thomas Johnson	Simple code for nuclear sources from thermal/thermal reactions. Code-parameter documentation can be found here [438].
nbisim (9.4.2.5)	NBI, alphas / Fokker-Planck	Thomas Johnson	Simple Fokker-Planck code calculating the collisional ion and electron heating from a particle source, either NBI or nuclear. Code-parameter documentation can be found here [439].
risk (9.4.2.5)	NBI Fokker-Planck	Mireille Schneider	Bounce averaged steady-state Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive. Code-parameter documentation can be found here [440].
spot (9.4.2.6)	NBI, alphas and ICRF Fokker-Planck	Mireille Schneider	Monte Carlo solver for the Fokker-Planck equation. Traces guiding centre orbits in a steady state magnetic equilibrium under the influence of Coloumb collisions and interactions with ICRF waves (through the RFOF library). The code can also be used for NBI and alpha particle modelling as it can handle source terms from the distsource CPO.
ascot4serial (9.4.2.6)	NBI, alphas, ICRF / Fokker-Planck	Otto Asunta/Seppo Sipila	Monte Carlo Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive.
ascot4parallel (9.4.2.6)	NBI, alphas, ICRF / Fokker-Planck	Otto Asunta/Seppo Sipila	Monte Carlo Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive.
Lion	IC / waves	Olivier Sauter and Laurent Villard	Global ICRF wave solver. Code-parameter documentation can be found here [441].
Cyrano	IC / waves	Ernesto Lerche and Dirk Van Eester	Global ICRF wave solver. Code-parameter documentation can be found here [442].
Eve (not yet in ETS)	IC / waves	Remi Dumont	Global ICRF wave solver

[436] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_lion.html
[437] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_nemo.html
[438] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_nuclearsim.html
[439] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_nbisim.html
[440] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_risk.html
[441] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_lion.html
[442] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_cyrano.html

Code name	Code Category	Contact persons	Short description
StixReDist	IC / waves	Dirk Van Eester and Ernesto Lerche	1d Fokker-Planck solver for ICRF heating.
ICdep	IC / waves	Thomas Johnson	Generates Waves-cpo with an IC wave field with Gaussian deposition profiles described by a combination of antenna-cpo input and through code parameters input. Code-parameter documentation can be found here [443].
ICcoup (9.4.2.1)	IC / coupling	Thomas Johnson	Simple model for the coupling waves from ion cyclotron antennas to the plasma. Code-parameter documentation can be found here [444].

7.1.2.1.43 Events actors

Code name	Code Category	Contact persons	Short description
pelletactor	pellet	Denis Kalupin	
pellettrigger	pellet	Denis Kalupin	
sawcrash_slice	sawteeth	Olivier Sauter	
sawcrit	sawteeth	Olivier Sauter	
runaway_indicator [445]	runaway	Roland Lohner och Gergo Pokol	Indicating the presence of runaway electrons: 1) Indicate, whether electric field is below the critical level, thus runaway generation is impossible. 2) Indicate, whether runaway electron growth rate exceeds a preset limit. This calculation takes only the Dreicer runaway generation method in account and assumes a velocity distribution close to Maxwellian, therefore this result should be considered with caution. The growth rate limit can be set via an input of the actor. Limit value is set to $$10^{1}2$$ particle per second by default. (This growth rate generates a runaway current of approximately 1 kA considering a 10 seconds long discharge.)

7.1.2.1.44 Non-physics actors

The ETS uses the following list of non-physics actors:
`addECant`, `addICant`, `backgroundtransport`, `calculateRHO`, `changeocc`, `changepsi`, `changeradii`, `checkconverge` `controlAMIX`, `coredelta2coreprof`, `correctcurrent`, `deltacombiner`, `emptydistribution`, `emptydistsource`, `emptywaves`, `eqinput`, `etsstart`, `fillcoreimpur`, `fillcoreneutrals`, `fillcoreprof`, `fillcoresource`, `fillcoretransp`, `fillequilibrium`, `fillneoclassic`, `filltoroidfield`, `gausiansources`, `geomfromcpo`, `hcd2coresource`, `ignoredelta`, `ignoreimpurity`, `ignoreneoclassic`, `ignoreneutrals`, `ignorepellet`, `ignoresour` `ignoretransport`, `IMP4dv`, `IMP4imp`, `importimptransport`, `itmimpurity`, `itmneutrals`, `merger4distribution`, `merger4distsource`, `merger4waves`, `nbifiller`, `neoclassic2coresource`, `neoclassic2coretransp`, `parabolicprof` `plasmacomposition`, `PowerFromArray`, `PowerModulation`, `profilesdatabase`, `readjustprof`, `sawupdate_slice`, `scaleprof`, `sourcecombiner`, `sourcedatabase`, `transportcombiner`, `transportdatabase`, `wallFiller` and `waves2sources`.

7.1.2.2 ETS_A 4.10a

The development on this version of the workflow discontinues. You can use it for production runs using 4.10a data structure and UAL. New functionalities shall be requested to 4.10b version!

ETS_A workflow in KEPLER :

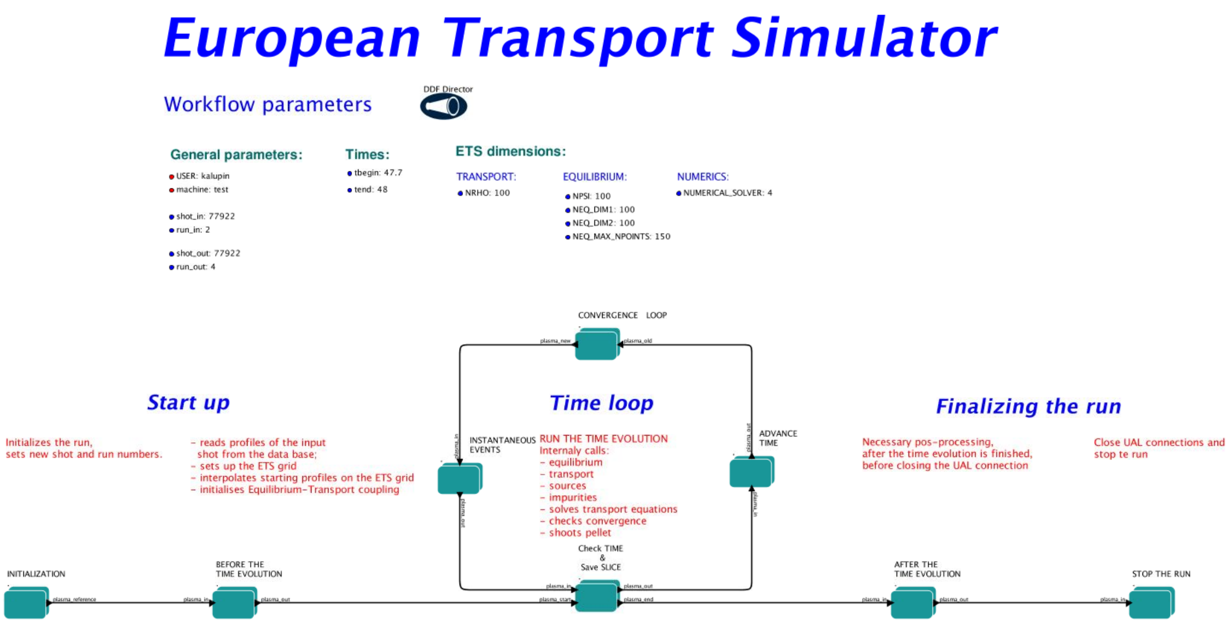
- uses as actors and composite actors from other IMPs, thus for the most recent versions of them please check with relevant project
- complex, but clearly structured workflow, which offers user friendly interface for configuring the simulation
- allows for easy modifications (*connecting new modules, or reconnecting the parts of the workflow*) through the easy graphical interface

[443] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_icdep.html
[444] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_iccoup.html
[445] http://portal.efda-itm.eu/twiki/bin/view/Main/HCD-codes-runin-usermanual

- provides users with all updates through the version control system
- still actively developing tool

The list and status of available physics models for the ETS_A can be found here [446].

Contact person: denis.kalupin@euro-fusion.org?subject=ETS%20in%20KEPLER (Skype: dkalupin)



7.1.2.2.1 Obtaining the ETS

Copy the ETS workflow to your space:

```
>svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/ets $ITMSCRATCH/ETS_WORKFLOWS
```

Compile ETS actors:

```
>cd $ITMSCRATCH/ETS_WORKFLOWS
>make import_ets
```

7.1.2.2.2 Updating the ETS

If you have already a copy of the ETS you do not need to check it out again!!!

If you like to update everything (WORKFLOW + ACTORS + VISUALIZATION + INPUT DATA)

```
>cd $ITMSCRATCH/ETS_WORKFLOWS
>svn update
>make import_ets
```

To update ETS actors go inside your ETS_ACTORS:

[446] https://www.eufus.eu/documentation/ITM/html/ets_status.html

```
>cd $ITMSCRATCH/ETS_WORKFLOWS
>svn update
>make import_actors
```

To update the workflow go inside your ETS_WORKFLOWS:

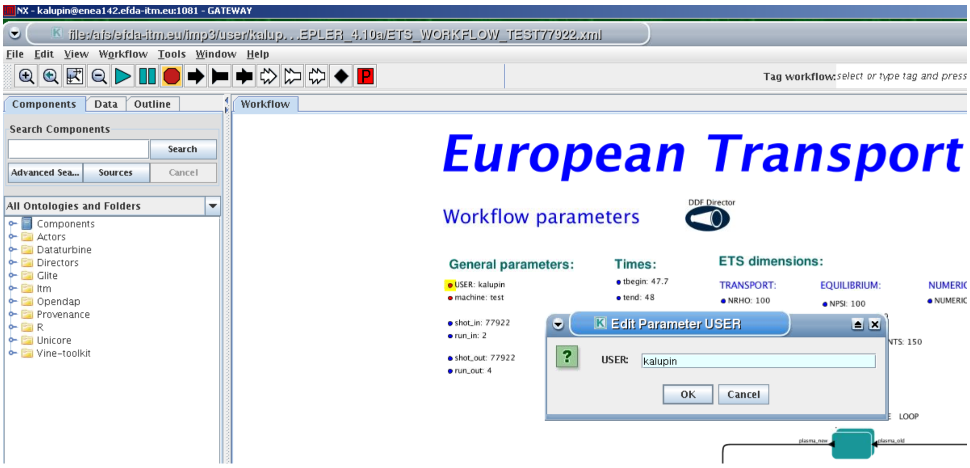
```
>cd $ITMSCRATCH/ETS_WORKFLOWS
>svn update
```

To update visualization scripts go inside your $KEPLER/kplots:

```
>svn update
```

This is ALL you need to do for updates!

7.1.2.2.3 Executing the ETS



Open ETS workflow in Kepler:

```
>kepler.sh $ITMSCRATCH/ETS_WORKFLOWS/ETS_WORKFLOW.xml
```

- on the top of the workflow, change the parameter "user" to your user_ID.

You can run the workflow!!!

7.1.2.2.4 Configuring the ETS run

7.1.2.2.5 WORKFLOW PARAMETERS

7.1.2.2.6 General Parameters

- USER - your userid
- MACHINE - machine name (database name) for which comutations are done
- SHOT_IN - input shot number
- RUN_IN - input run number
- SHOT_OUT - output shot number
- RUN_OUT - output run number
- NUMERICAL_SOLVER - choice of the numerics solving transport equations (RECOMENDED SELECTION: 3 or 4)

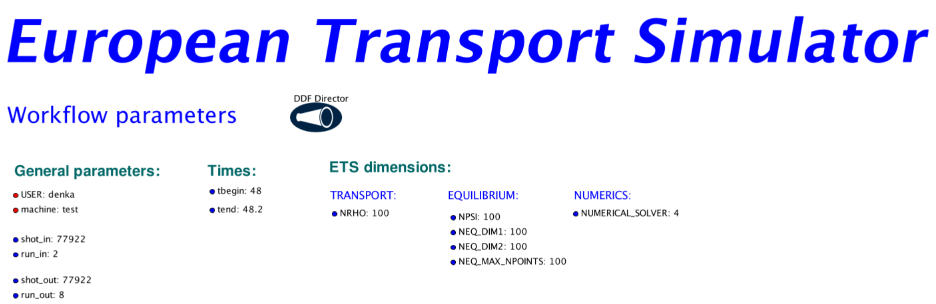
7.1.2.2.7 Space resolution

- NRHO - number of radial points for transport equations
- NPSI - number of points for equilibrium 1-D arrays
- NEQ_DIM1 - number of points for equilibrium 2-D arrays, first index
- NEQ_DIM2 - number of points for equilibrium 2-D arrays, second index
- NEQ_MAX_NPOINTS - maximum number of points for equilibrium boundary

7.1.2.2.8 Time resolution

Start and End time

- TBEGIN - Computations start time
- TEND - Computattions end time



Time spep

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor
- TAU:specify value of the time step in [s]
- TAU_OUT: specify value of the output time interval in [s]
- Commit

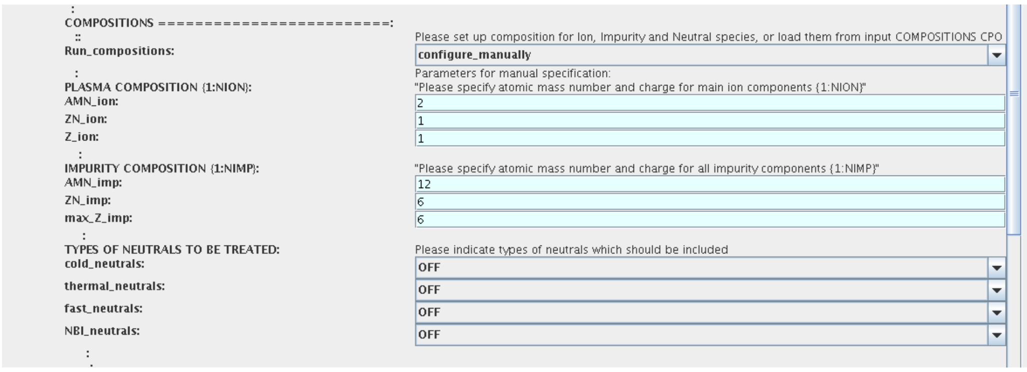
7.1.2.2.9 PLASMA, IMPURITY and NEUTRALS COMPOSITION

Before starting the run you need to define types of main and impurity ions and types of neutrals to be included in simulations.

To set up the composition:

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor
- choose one of modes for setting ”Run_compositions”
  ”from_input_CPO” - will pick up the COMPOSITIONS structure of the COREPROF CPO from the input shot;
  ”configure_manually” - will force the composition from the values specified below

- specify values of AMN_ion, ZN_ion and Z_ion for ions, from the first ion to the last [1:NION], separated by commas
- specify values of AMN_imp, ZN_imp and max_Z_imp for impurity ions, from the first to the last [1:NIMP], separated by commas
- choose the neutrals types, which should be switched "ON"
- Commit



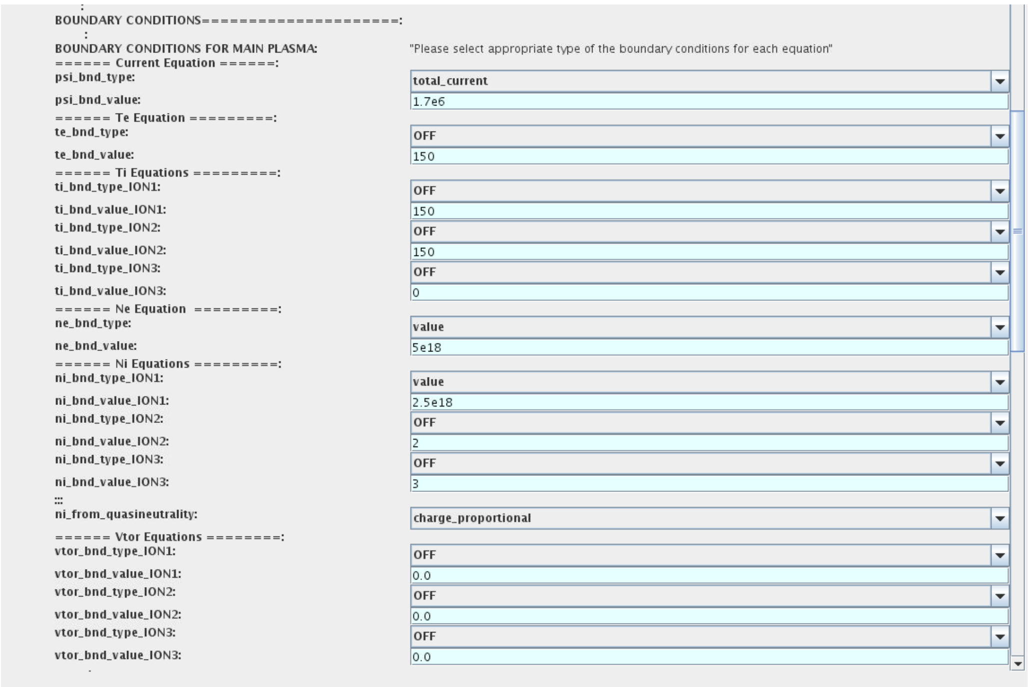
7.1.2.2.10 EQUATIONS TO BE SOLVED AND BOUNDARY CONDITIONS

7.1.2.2.11 MAIN PLASMA

Before starting the run you need to select the type and value of the boundary conditions for all equations. Please note that the value should correspond to the type. All equations allow for following types of boundary conditions:

- *OFF* - equation is not solved, initial profiles will be kept for whole run
- *value* - edge value should be specified
- *gradient* - edge gradient should be specified
- *scale_length* - edge scale length should be specified
- *generic* - 3 coefficients (a1,a2,a3) should be provided: a1*y + a2*y = a3
- *value_from_input_CPO* - equation is solved, edge value evolution will be red from input shot
- *profile_from_input_CPO* - equation is not solved, profile evolution will be red from input shot

The particular equation will be activated if the boundary condition type for it is other than *OFF* !



To set up boundary conditions:

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor
- select appropriate boundary condition for each equation
- specify values for boundary conditions corresponding to the type and to the ion component
- Commit

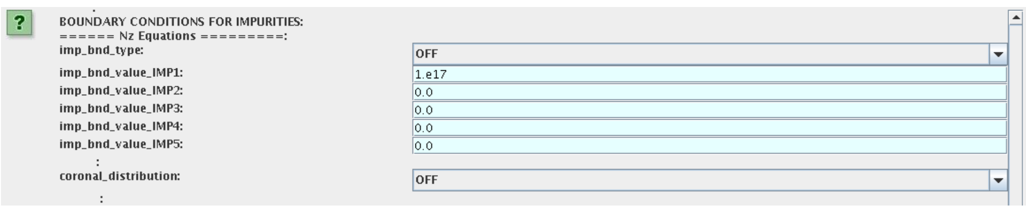
!!! If electron density is solved, all ions with ni_bnd_type=OFF will be computed from the quasineutrality condition and scaled proportional to specified *ni_bnd_value* or inversely proportional to their charge *(charge_proportional)* . This is defined by option: *ni_from_quasineutrality* .

7.1.2.2.12 IMPURITY

You can set up the boundary conditions for impurity ions in a similar way as for main ions.
!!! Note, that at the moment only types: *OFF* ; *value* and *value_from_input_CPO* are accepter by impurity solver.

To set up boundary conditions:

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor
- select appropriate boundary condition for each impurity species (OFF-equation is not solved)
- specify values for boundary density of each impurity component [1:MAX_Z_IMP], separated by commas
- Commit



Interface for impurity boundary condition has additional option , *coronal_distribution* , that allow to preset the edge values or entire profiles of individual ionization states from coronal distribution. In tis case only single value is required to be specified for each impurity boundary value.
The options are:

- *OFF* - the boundary values for impurity densities will be as they are specified above;
- *boundary_conditions* - the boundary densities will be renormalized with corona, using the first element from above as a total density
- *boundary_conditions_and_profiles* - the boundary densities and starting profiles will be renormalized with corona, using the first element from above as a total density

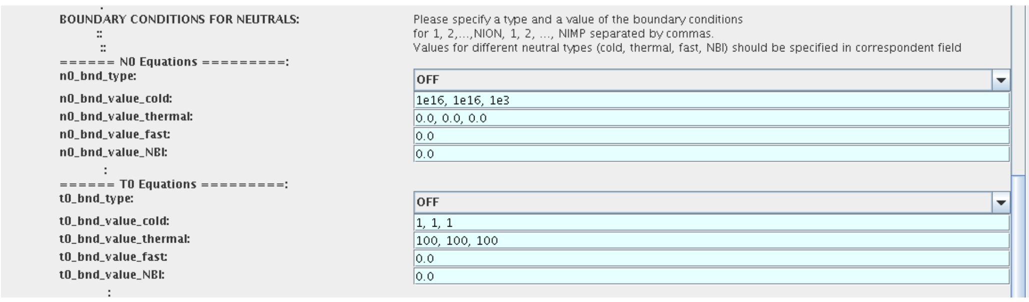
7.1.2.2.13 NEUTRALS

!!! AT THE MOMENT BOUNDARY CONDITIONS FOR NEUTRAL VELOCITIES ARE DISABLED, MIGHT BE ADDED ON REQUEST

Note, that ALL values should be specified in the order: {*1, 2, 3 ...NION, 1, 2, 3, ...NIMP*}

To set up boundary conditions:

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor
- select appropriate boundary condition for each neutral species (OFF-equation is not solved)
- specify values for boundary density and temperature of each neutral component [1, 2, 3 ...NION, 1, 2, 3, ...NIMP], separated by commas
- Commit



7.1.2.2.14 INPUT PROFILES INTERPOLATION

You are going to start the ETS run from some input shot, which might contain some conflicting rho grids.
Thus there is a choice for the user to decide on the grid on which the starting profiles should be load by the worflow, *Interpolation_of_input_profiles* .

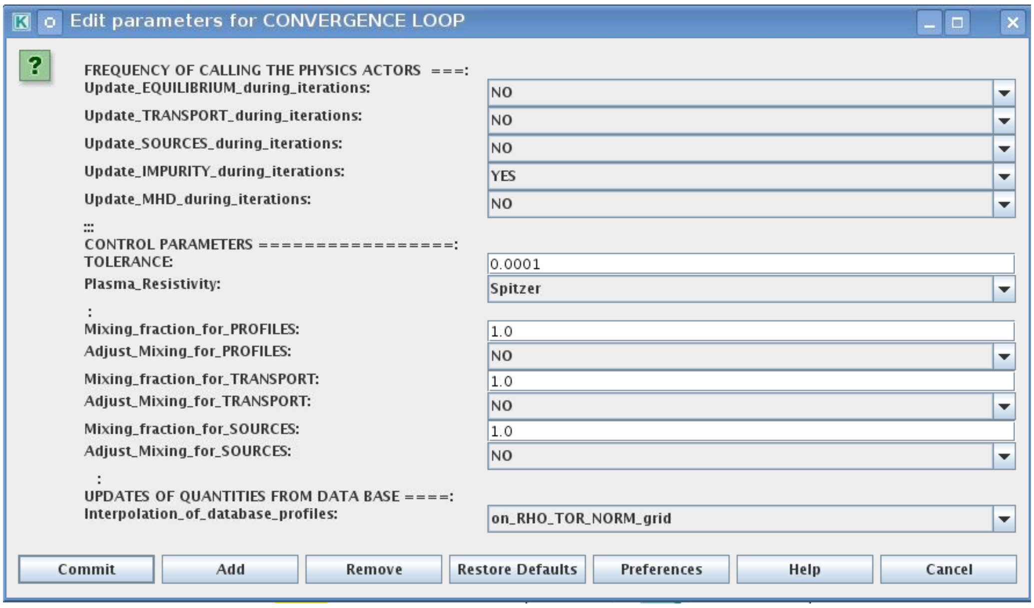
To define the interpolation grid select:

- *on_RHO_TOR_grid* - interpolate input profiles based on the grid specyfied in [m];
- *on_RHO_TOR_NORM_grid* - interpolate input profiles based on normalised rho grid [0:1]

7.1.2.2.15 CONVERGENCE LOOP

ETS updates input from different physics actors in a sequence, which is finished by solving the transport equations. Ther are possible none-linear couplings between different parts of the system. These nonelinearities are trited by the ETS using iterations.
The decision to step in time is made by the ETS based on the criteria that the maximum relative deviation of main plasma profiles is lower than some predefined tolerance.
There is a number of settings and sitches in the ETS that are used by the iterative scheme. To edit them do:

- right click on the box CONVERGENCE LOOP
- select Configure actor to edit settings
- choose your settings
- Commit



Switches in the field *FREQUENCY OF CALLING THE PHYSICS ACTORS* define how many times the the actors of a certain cathegory (equilibrium, transport, etc.) should be called in a single time step.
By selecting *YES* all actors of this cathegory will be called every iteration
By selecting *NO* all actors of this cathegory will be called only ones in a time step

Switches and parameters in the field *CONTROL PARAMETERS* define how iterations are done

- *Tolerance* - defines the maximum relative error of profiles change compared to previous iteration. If it is achieved the time steping is done.

For highly none-linear case the required precision can be achieved faster by the iterative scheme if only fraction of the new solution is mixed to the previous state.
The following scheme is adopted by the ets to reduce none-linearities in profiles, transport coefficients and sources:

```
Y = (Amix * Y+) + ((1-Amix)*Y-)
```

where Amix is the mixing fraction

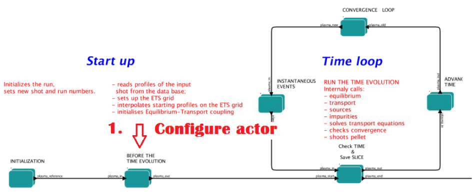
You can activate the mixing of profiles, transport coefficient and sources by selecting the corresponding *Mixing_fraction_...* to be between [0:1]
You also can activate the authomatic ajustment of this fraction by selecting: *Ajust_Mixing_for_...* to *YES*

7.1.2.2.16 EQUILIBRIUM

7.1.2.2.17 Starting Settings

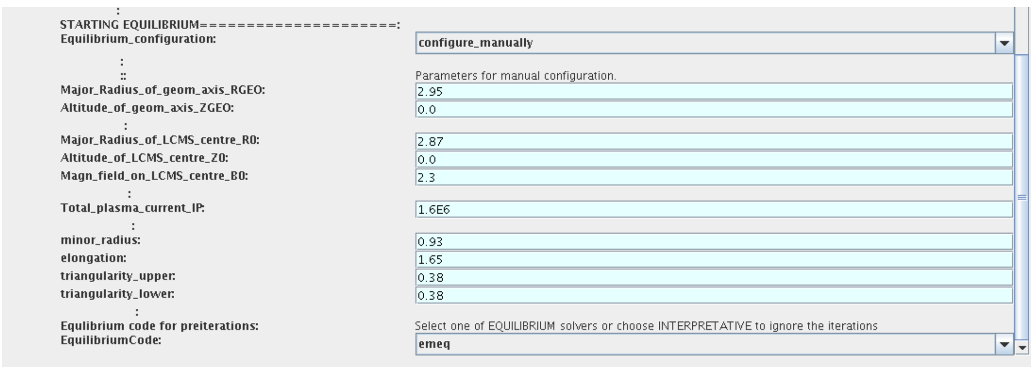
Before starting the run you need to set up your initial equlibrium. There are several options to do it: if your input shot contains the consistent equilibrium with all necessary parameters - you can start immediately from it; if your input shot contains the equilibrium but it is not consistent or some parameters are missing you can check it automatically; if your input equilibrium is corrupt or not present - you can define the starting equlinbrium by tree moment description. To select your starting equilibrium please do:

- right click on the box BEFORE THE TIME EVOLUTION
- select Configure actor to edit settings
- Select your settings or specify values
- Commit



SETTINGS:

- *Equilibrium_configuration* - select *configure_manually* if you like to specify configuration below; select *from_input_CPO* if all quantities should be picked up from the input CPO
- *Major_Radius_of_geom_axis_RGEO* - radius of the geometrical centre of the vessel [m]
- *Altitude_of_geom_axis_ZGEO* - altitude of the geometrical centre of the vessel [m]
- *Major_Radius_of_LCMS_centre_R0* - radius of the plasma centre [m]
- *Altitude_of_LCMS_centre_Z0* - altitude of the plasma centre [m]
- *Magn_field_on_LCMS_centre_B0* - vacume magnetic field at R0 [T]
- *Total_plasma_current_IP* - plasma current within the LCMS [A]
- *Minor_radius* - minor radius of the LCMS [m]
- *Elongation* - elongation of the LCMS [-]
- *Triangularity_upper* - upper triangularity of the LCMS [-]
- *Triangularity_lower* - lower triangularity of the LCMS [-]
- *Equilibrium code* - select one of available equilibrium solvers to check the consistency between starting equilibrium and current profile; use *INTERPRETATIVE* if you trust your input data (in this case the check will be ignorred).

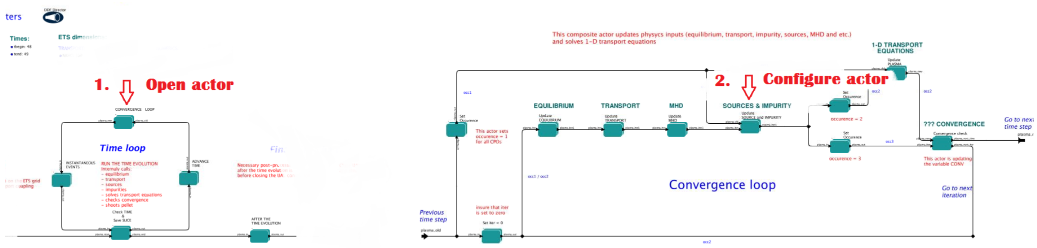


Please note, that different equilibrium solvers might require slightly different input. Thus it is a user responsibility to check that the information inside input shot/run is enough to run selected equilibrium solver.

7.1.2.2.18 Run Settings

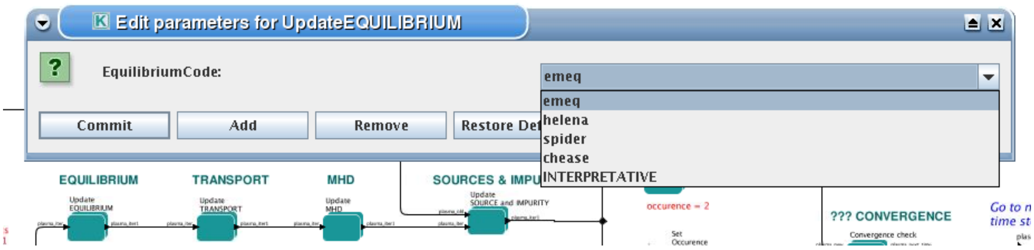
There are several equilibrium solvers connected to the ETS. You can select the one of them.Therefore please do:

- right click on the box CONVERGENCE LOOP
- select Open actor
- right click on the box EQUILIBRIUM
- select Configure actor to edit settings
- choose your equilibrium solver
- Commit



INTERPRETATIVE means that the ETS will not update the equilibrium, instead it will be using the initial equilibrium.

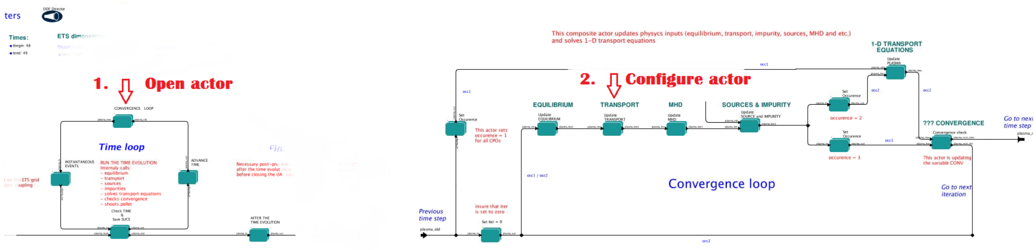
Please note, that it is better to select the same code as you used for pre-iterrations. Because outputs of different equilibrium solver are not necessary done with the same resolution. Therefore the routine saving the information to the data base might brake due to uncompatible sizes of some signals.



7.1.2.2.19 TRANSPORT

The settings for TRANSPORT can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

- right click on the box CONVERGENCE LOOP
- select Open actor
- right click on the box TRANSPORT
- select Configure actor to edit settings
- choose your settings
- Commit



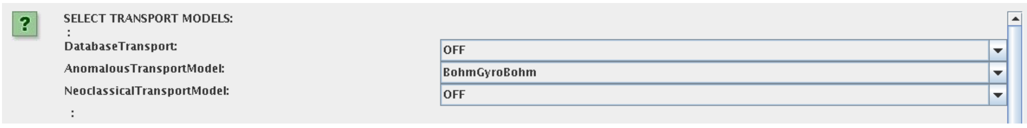
7.1.2.2.20 Choice of transport model

ETS constructs the total transport coefficients from the combination of Anomalous transport (model choice), Neoclassical transport (model choice) and Database transport (transport coefficients be saved to the input shot)

```
D_tot = D_DB*M_DB + D_AN*M_AN + D_NC*M_NC
```

You should choose from the list of available models in each cathegory or switch it OFF

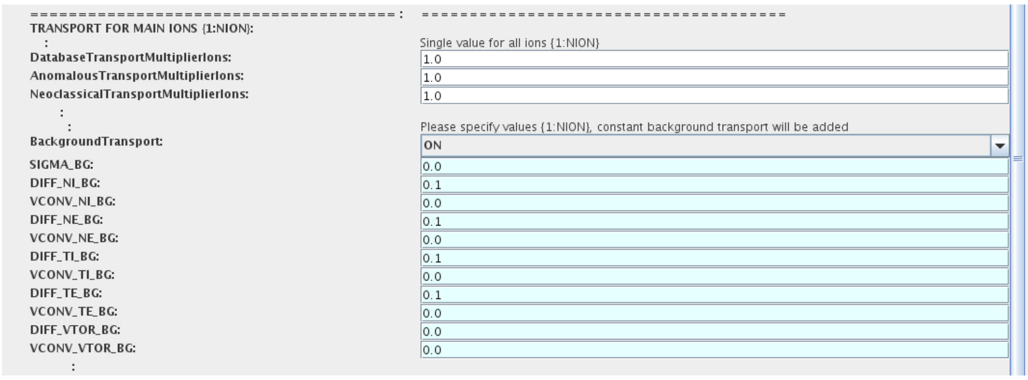
The list of available transport models can be found here [447].



7.1.2.2.21 Main plasma transport

In this section you define how total transport coefficients for main ions should be constructed from contributions provided by different models. You need to provide the multipliers for Anomalous, Neoclassical and Database contributions, which will determine their weights in total transport coefficient.

You also can add the constant background level for each coefficient (ion coefficients are expected to be the string {1:NION}, separated by commas)



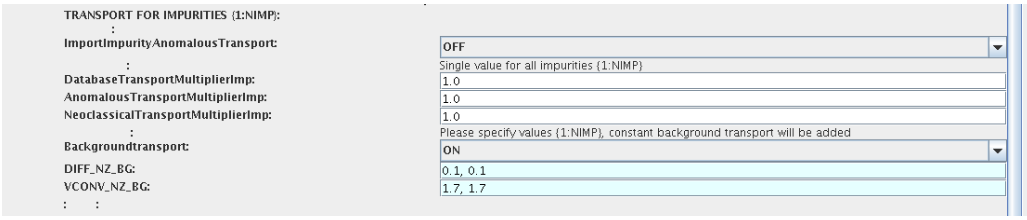
7.1.2.2.22 Impurity transport

In this section you define how total transport coefficients for impurity ions should be constructed from contributions provided by different models. You need to provide the multipliers for Anomalous, Neoclassical and Database contributions, which will determine their weights in total transport coefficient.

You also can add the constant background level for each coefficient (coefficients are expected to be the string {1:NIMP}, separated by commas)

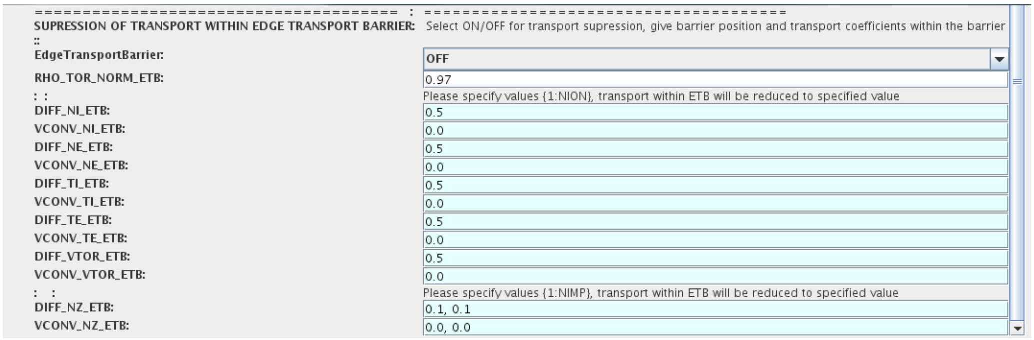
In addition, there is an option to import the Anomalous component of transport coefficient *from_first_ion* or *from_electrons* (the same anomalous contribution will be added to all impurity components, all ionization states)

[447] https://www.eufus.eu/documentation/ITM/html/ets_status.html



7.1.2.2.23 Edge transport barrier

In this section you can artificially supress the transport outside of specified *RHO_TOR_NORM_ETB* . Total transport coefficients for all transport channels (ne, ni, nz, Te, Ti,...) will be reduced to constant values specified below (ion and impurity coefficients are expected to be the strings {1:NION}) and {1:NIMP} respectively)



7.1.2.2.24 Total transport coefficients

Profiles of the total transport coefficient for each channel are obtained from the the individual contributions (Data Base, Anomalous, Neoclassical and Background) as a summ of all activated transport models multiplied with coefficients specified on the interface of the composite actor.

```
X_tot = X_DB*DBM + X_AN*ANM + X_NC*NCM + X_BG*BGM
```

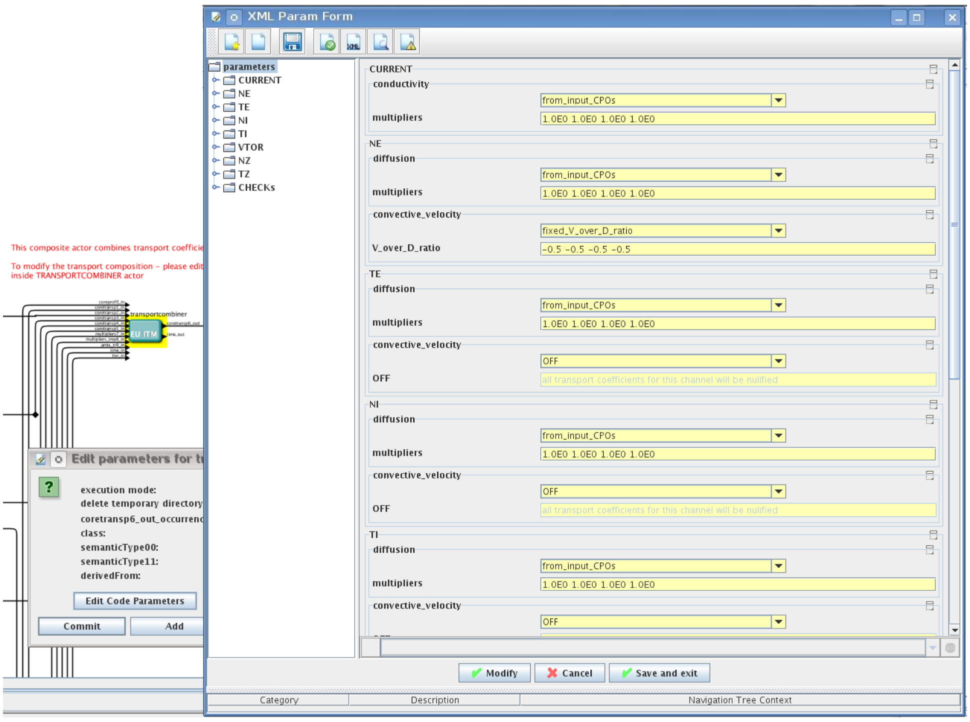
!!! Note, that contributions to all transport equations will be multiplied with the same value.
For example: if AnomalousTransportMultiplier=3.0, then contibutions from selected anomalous transport model to each transport equation will be multiplied with 3.0

The fine tuning of of transport coefficients can be done through editing the XML code parameters of the transport combiner actor:

- right click on the box TRANSPORT
- select Open actor to edit settings
- right click on the box Transport Combiner
- select Open actor to edit settings
- right click on the box transportcombiner
- select Configure actor
- click Edit Code Parameters
- If you select ***OFF*** contributions from all transport models to this channel will be nullified; If you select ***from_input_CPOs*** the transport channel will be activated, and the total transport coefficient will be combined from active tranport models; For convective velocity there is an additional option ***fixed_V_over_D_ratio*** , by selecting this the combiner will ignore the convective components provided by transport nmodels. The convective velocity will be determined from the total diffusion coefficient by applying fixed V/D ratio (*for inward pinch the values should be negative!*).
  For all active channels you can adjust multipliers for combining contributions from different transport models (array of four space separated values is expected):

- first position - Data Base transport coefficients;
- second position Anomalous transport coefficients;
- third position Neoclassical transport coefficients;
- fourth position Background (constant level) transport coefficients;

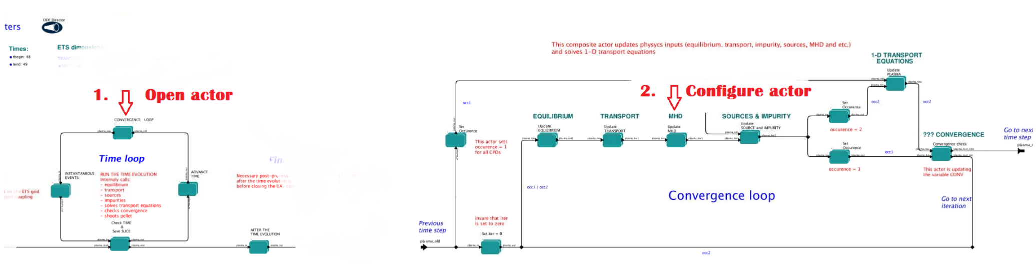
- save and exit
- Commit



7.1.2.2.25 MHD

The settings for MHD type of events can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

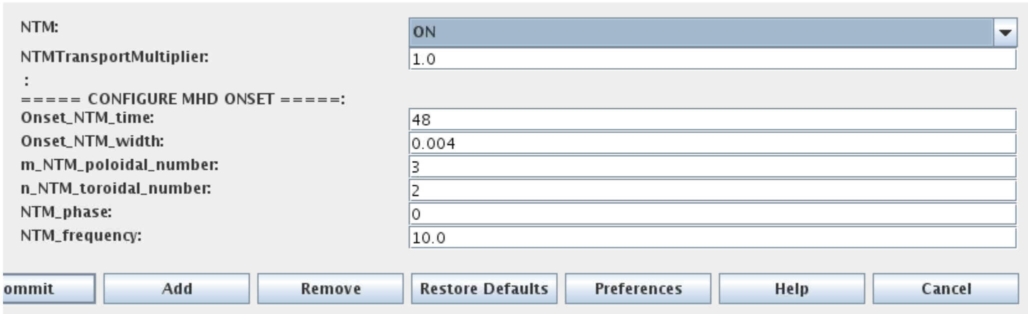
- right click on the box CONVERGENCE LOOP
- select Open actor
- right click on the box MHD
- select Configure actor to edit settings
- choose your settings
- Commit



At the moment ETS allows only for NTM to be activated. The sawtooth module is expected to be deployed before ITM Code Camp in Slovenia.

User can ajust the following NTM settings:

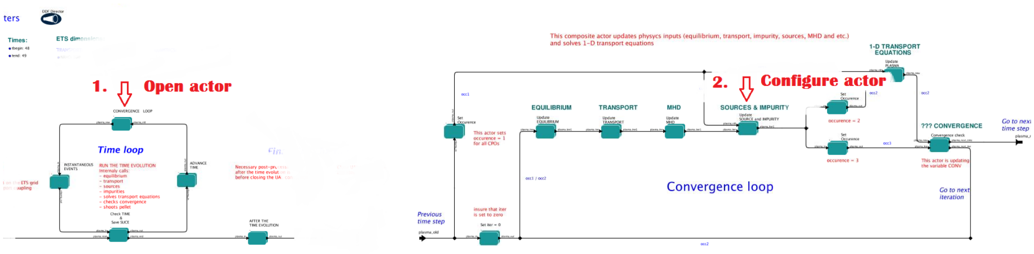
- NTM *ON* means that ETS will add the NTM driven transport to the total transport coefficient; *OFF* -ignored
- NTMTransportMultiplier the transport contrinution from NTM will be multiplied with this value
- Onset_NTM_time - activation time for the NTM mode
- Onset_NTM_width - starting width of the mode
- m_NTM_poloidal_number
- n_NTM_toroidal_number
- NTM_phase
- NTM_frequency



7.1.2.2.26 SOURCES AND IMPURITY

The settings for SOURCES AND IMPURITY can be done inside the CONVERGENCE LOOP composite actor. Therefore please do:

- right click on the box CONVERGENCE LOOP
- select Open actor
- right click on the box SOURCES AND IMPURITY
- select Configure actor to edit settings
- choose your settings
- Commit

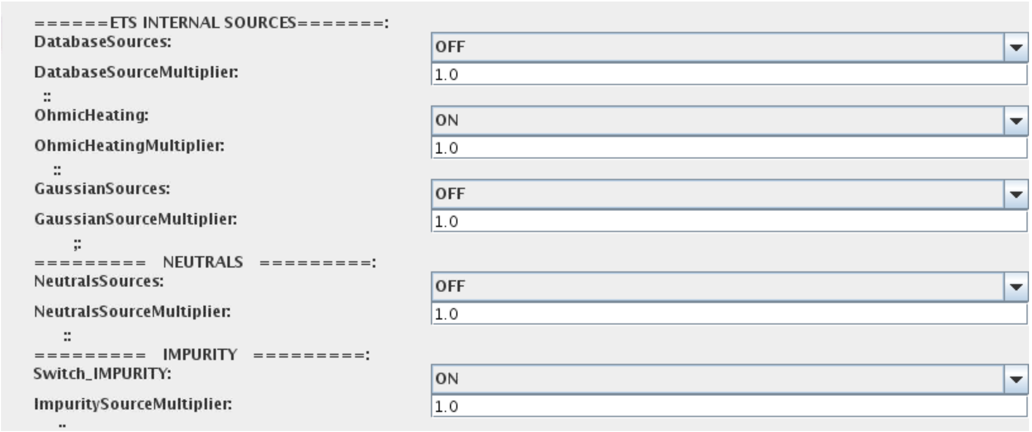


7.1.2.2.27 IMP3 sources

There is a number of sources developed by IMP3 project, which are actors or internal routines of the transport solver. You can activate them by selecting *ON* / *OFF* in front of corresponding source:

- Database Sources *ON* - ETS will pick up the evolution of source profiles saved to your input shot/run; *OFF* -ignored
- Ohmic Heating *ON* - ETS will compute Ohmic heating internaly; *OFF* -ignored

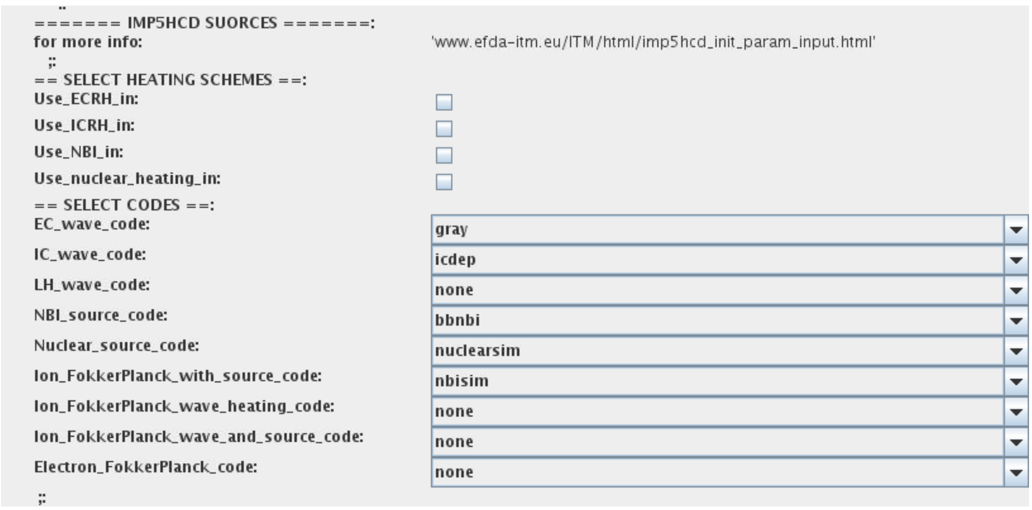
- Gaussian Sources *ON* - ETS will add sources from the Gaussian source actor (you can configure heat and particle deposition profiles by editing the code parameters of the actor); *OFF* -ignored
- Neutral Sources *ON* - Fluid neutrals will be solved according to the boundary conditions specified on Before_time_evolution composite actor interface; *OFF* -ignored
- Switch_IMPURITY *ON* - Impurity density and radiative sources will be computed; *OFF* -ignored; *INTERPRETATIVE* profiles of impurity density will be read from input shot/run



7.1.2.2.28 IMP5HCD sources

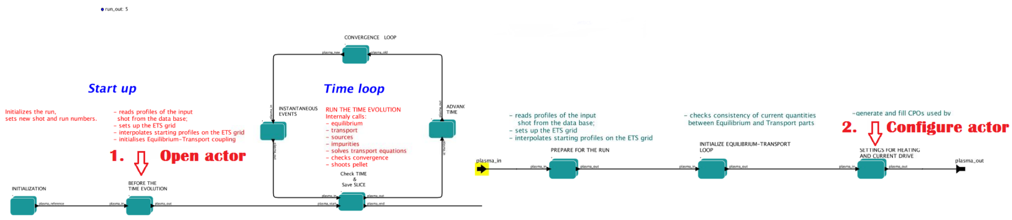
There is a number of sources developed by IMP5 project, that are incorporated by the ETS workflow.

For the IMP5HCD sources please activate the type of heating source, by ticking the box in front of it, and select the code to simulate it.



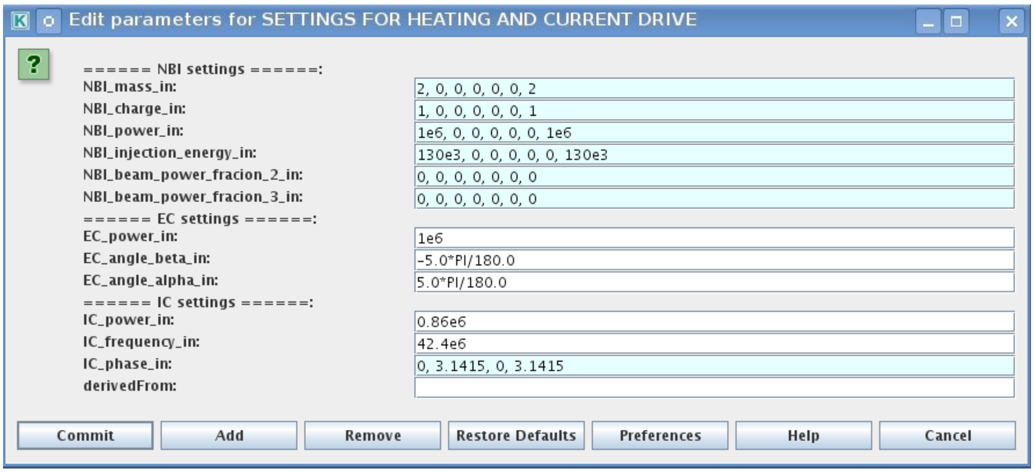
You also need to configure initial IMP5HCD settings. Therefore please:

- right click on the box BEFORE THE TIME EVOLUTION
- select Open Actor
- right click on the box SETTINGS FOR HEATING AND CURRENT DRIVE
- select Configure actor
- edit the stettings
- Commit



The detailed information on initial IMP5HCD settings can be found here [448].

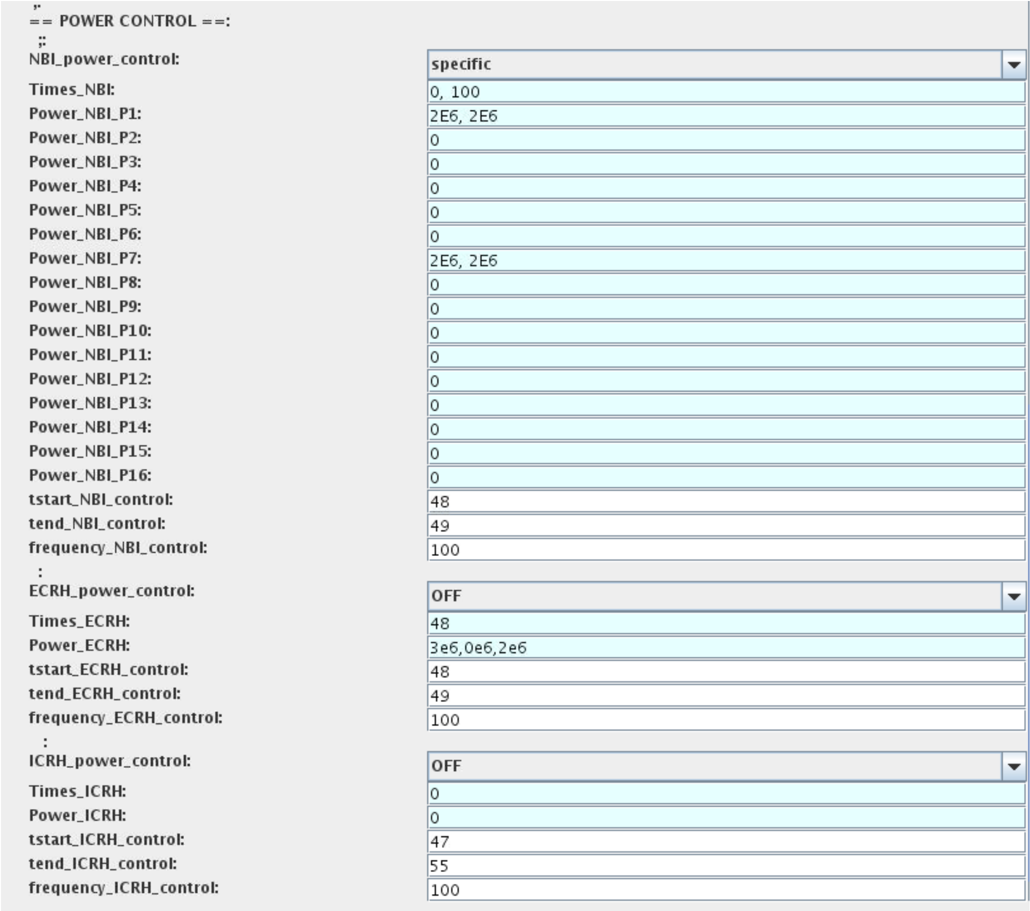
Please note that settings for NBI are done independent for each PINI. Therefore, for NBI settings, please insert the values separated by commas. The number of the element in the array corresponds to the number of activated PINI. Maximum accepted number of PINIs = 16.



7.1.2.2.29 Power control

You also can activate the power control for the IMP5HCD sources.

[448] https://www.eufus.eu/documentation/ITM/html/imp5_imp5hcd.html

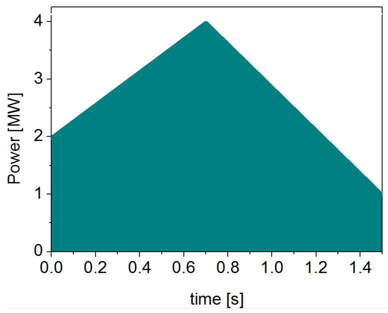


== POWER CONTROL ==:

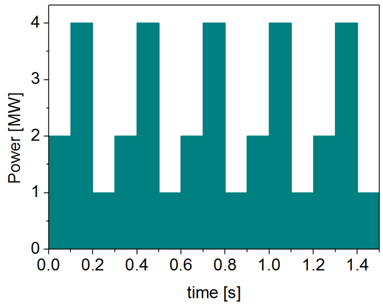
NBI_power_control:	specific
Times_NBI:	0, 100
Power_NBI_P1:	2E6, 2E6
Power_NBI_P2:	0
Power_NBI_P3:	0
Power_NBI_P4:	0
Power_NBI_P5:	0
Power_NBI_P6:	0
Power_NBI_P7:	2E6, 2E6
Power_NBI_P8:	0
Power_NBI_P9:	0
Power_NBI_P10:	0
Power_NBI_P11:	0
Power_NBI_P12:	0
Power_NBI_P13:	0
Power_NBI_P14:	0
Power_NBI_P15:	0
Power_NBI_P16:	0
tstart_NBI_control:	48
tend_NBI_control:	49
frequency_NBI_control:	100
ECRH_power_control:	OFF
Times_ECRH:	48
Power_ECRH:	3e6,0e6,2e6
tstart_ECRH_control:	48
tend_ECRH_control:	49
frequency_ECRH_control:	100
ICRH_power_control:	OFF
Times_ICRH:	0
Power_ICRH:	0
tstart_ICRH_control:	47
tend_ICRH_control:	55
frequency_ICRH_control:	100

If the POWER_CONTROL is not *OFF* , there are two modes of operation: *specific* and *frequency*

For *specific* you should specify the time sequence separated by commas and the corresponding power sequence (where first power level corresponds to the first time, second to second and etc.). Linear interpolation will be done between the sequence points.
For example: if you give the power sequence = 2e6,4e6,1e6 and times = 0.0, 0.7, 1.5 (s) the delivered power would be:



For *frequency* you should specify the power levels sequence separated by commas, start and end time of the power control and the frequency of switching between these levels.
For example: if you give the power sequence = 2e6,4e6,1e6 and frequency = 10 (Hz) tstart =0.0 (s) tend = 1.5 (s) the delivered power would be:



7.1.2.2.30 Total power

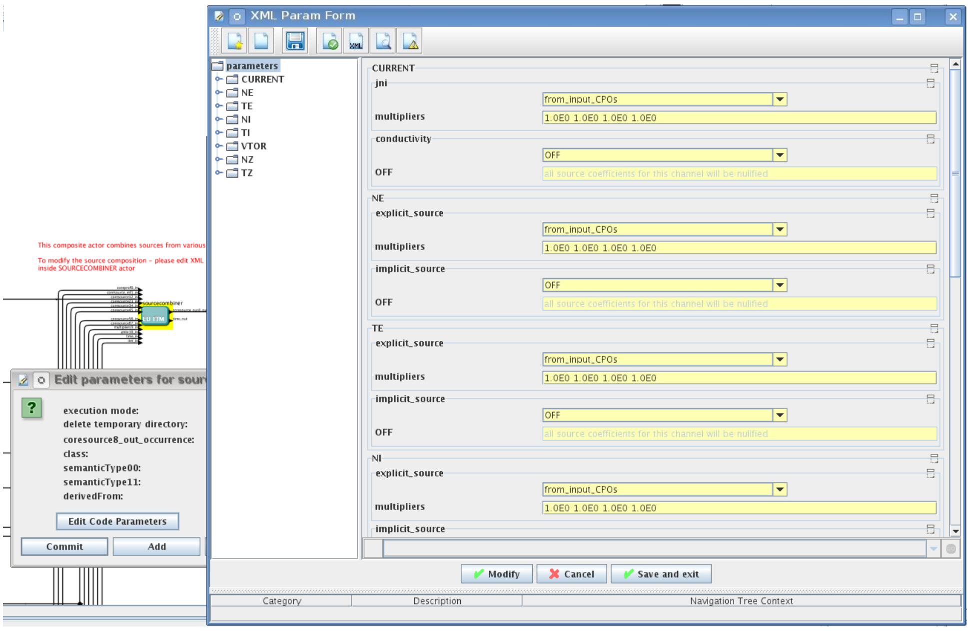
Profiles of the total source for each channel are obtained from the the individual contributions (Data Base, Gaussian, Neutrals, Impurity and HCD) as a summ of all activated sources multiplied with coefficients specified on the interface of the composite actor.

```
S_tot = S_DS*DSM + S_GS*GSM + S_Neu*NeuSM + S_IMP*IMPSM + S_HCD*HCDSM
```

!!! Note, that contributions to all transport equations will be multiplied with the same value.
For example: if ImpuritySourceMultiplier=3.0, then contibutions from impurity to Se, Sz and Qe will be multiplied with 3.0

The fine tuning of of sources can be done through editing the XML code parameters of the source combiner actor:

- right click on the box SOURCES and IMPURITY
- select Open actor to edit settings
- right click on the box Source Combiner
- select Open actor to edit settings
- right click on the box sourcecombiner
- select Configure actor
- click Edit Code Parameters
- If you like the sources to the particular equation being activated - select ***from_input_CPOs*** ; if you select ***OFF*** contributions from all sources to this channel will be nullified.
  For active channels you can adjust multipliers for combining contributions from different source modules (array of five space separated values is expected):
  - first position - Data Base sources;
  - second position Gaussian sources;
  - third position HCD sources;
  - fourth position Neutral sources;
  - fifth position Impurity sources.
- save and exit
- Commit



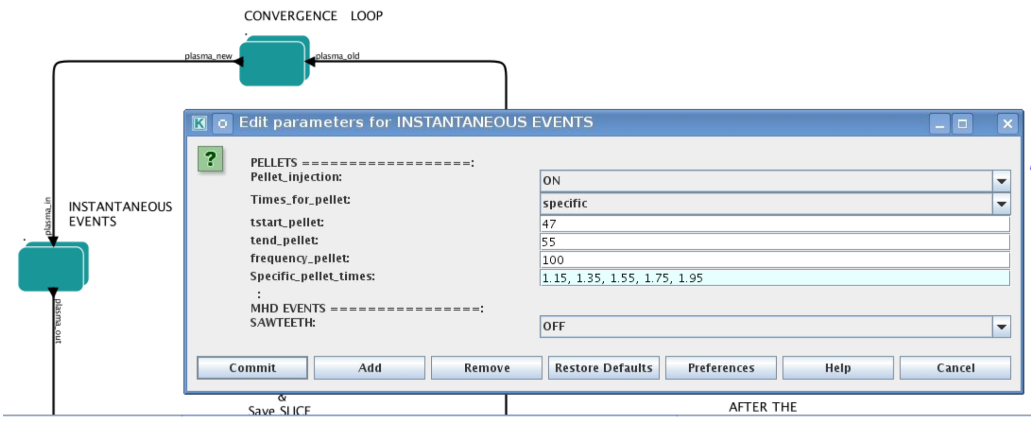
7.1.2.2.31 INSTANTANEOUS EVENTS

At the moment, user can swith ON and OFF two types of events: PELLET and SAWTOOTH

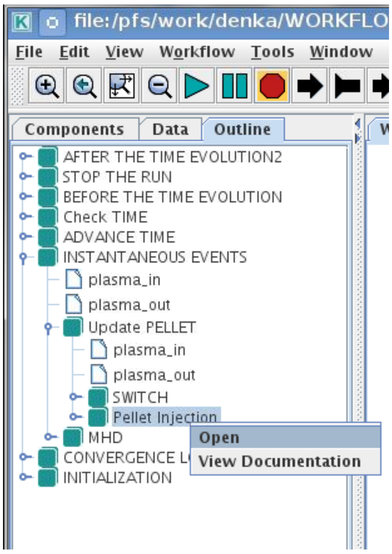
7.1.2.2.32 PELLET

At the top level of the workflow you can configure times for pellet injection

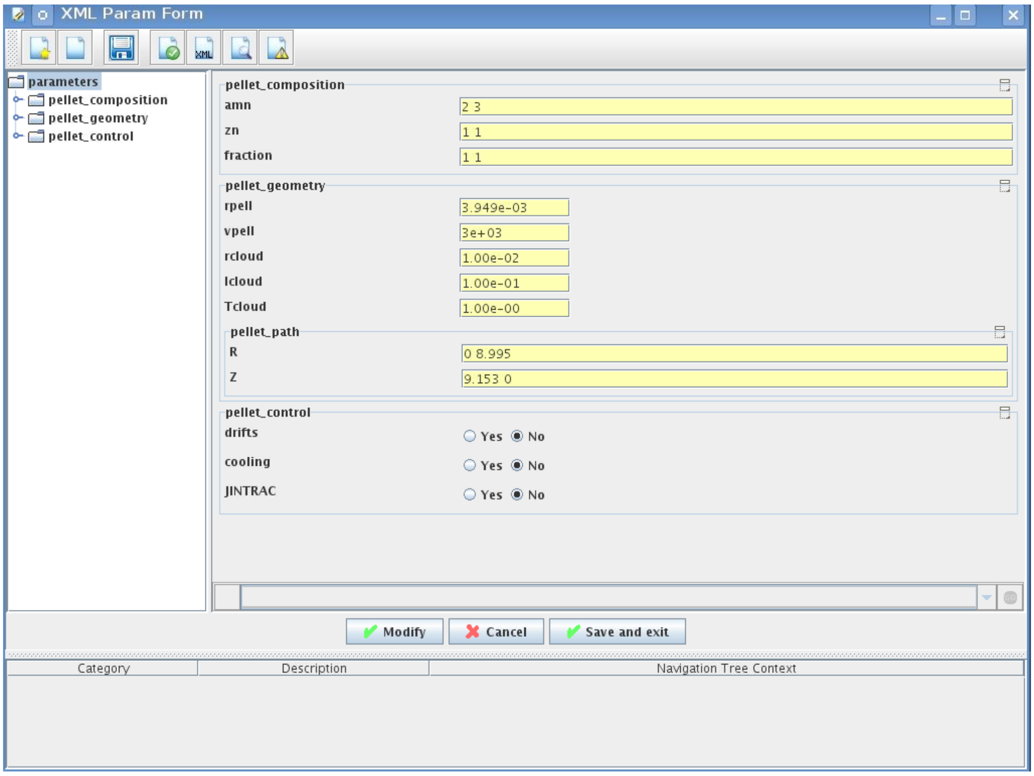
- right click on the box INSTANTANEOUS EVENTS
- select Configure actor to edit settings
- Select Pellet_injection ON if you like to use pellet in your simulation
- Select mode of operation: specific - pellets will be shut at specific times, you also need to specify array times_pellet
  - specific - pellets will be shut at exact times specified in array times_pellet
  - frequency pellets will be shut from tstart_pellet until tend_pellet with a frequency_pellet
- frequency pellets will be shut from tstart_pellet until tend_pellet with a frequency_pellet
- Commit



Parameters of individual pellet need to be configured through the icode_parameters of the PELLET actor. To access it go to 'Outline' on the right upper corner and open the following:



- right click on the actor PELLET
- select Configure actor
- click Edit Code Parameters
- edit parameters and click save and exit
- Commit



amn atomic mass number: array of elements separated by space (1:nelements) [-]

zn nuclear charge: array of elements separated by space (1:nelements) [-]

fraction fraction of each element in the pellet, based on the number of atoms: array of elements separated by space (1:nelements) [-]

rpell radius of the pellet [m]

vpell velocity of the pellet [m/s]

rcloud radius of the pellet cloud [m], radial extension of the cloud = 2*rp0

lcloud length of the pellet cloud along the field line [m]

Tcloud temperature of the pellet cloud [eV]

Pellet path is specified by two points, for which R and Z coordinated should be specified

R R coordinates of the pivot and second points of the pellet path, separated by space [m]

Z Z coordinates of the pivot and second points of the pellet path, separated by space [m]

Control switches allow to activate:

- ***drifts*** - YES - will activate radial displacement of deposition profile, same for all path points
- ***cooling*** - YES - will activate cooling of the other side of the plasma due to parallel heat transport (essential for large pellets, which might cross the same flux surface twice)
- ***JINTRAC*** - YES - will provide temperature reduction consistent with the model used in JETTO

7.1.2.2.33 MHD

At the top level of the workflow you can switch ON/OFF possible MHD events

- right click on the box INSTANTANEOUS EVENTS
- select Configure actor to edit settings
- Select SAWTOOTH ON if you like to use them in your simulation
- Commit

7.1.2.2.34 Visualization during the run

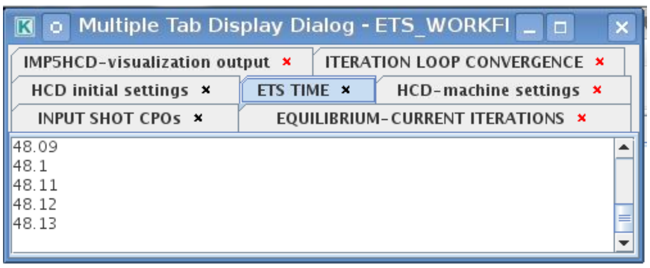
There is a number tools visualizing the ETS run.

7.1.2.2.35 Multiple Tab Display

The display appeares automaticaly when the ETS workflow is launched. It displays diagnostic text messages from the workflow on following topics:

- Input data statement
- Iterations to check the initial convergence between EQUILIBRIUM and CURRENT
- Time evolution
- Convergence of iteratinos within the time step
- IMP5HCD settings
- Power used by IMP5HCD actors durung the run

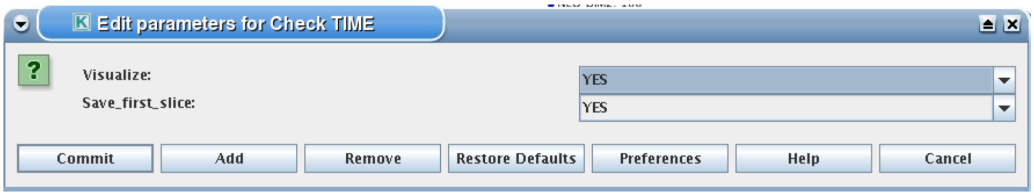
Also the error messages from execution of the workflow will be displayed here.



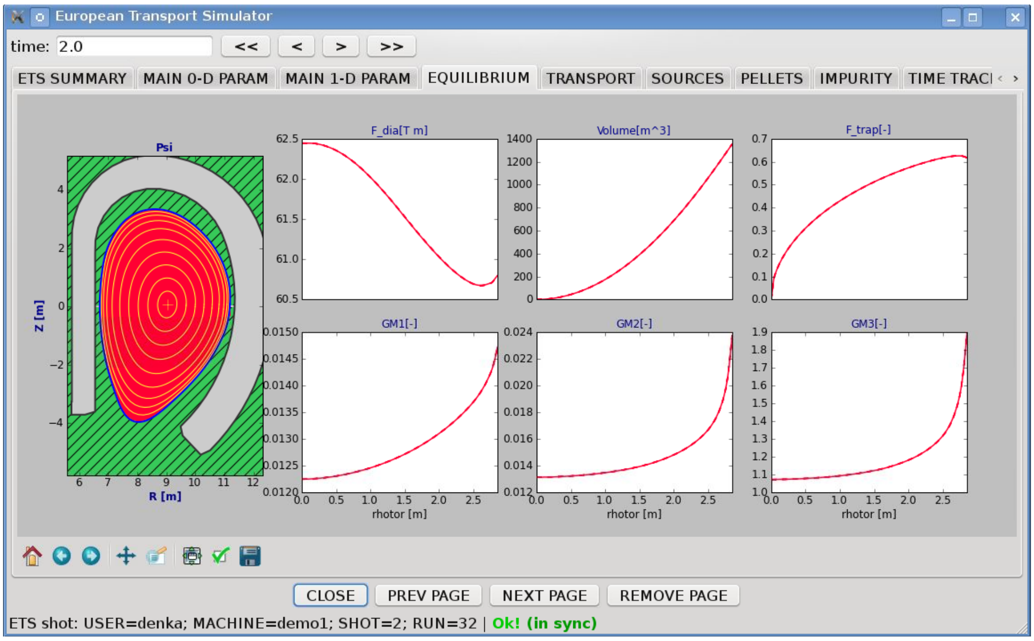
7.1.2.2.36 Python Visualization Display

You can activate the graphical visualization of your run evolution:

- right click on the box Check Time & Save Slice
- select Configure actor
- select visualisation YES or NO
- Commit



Then evolution of main discharge parameters will be shown in this window:



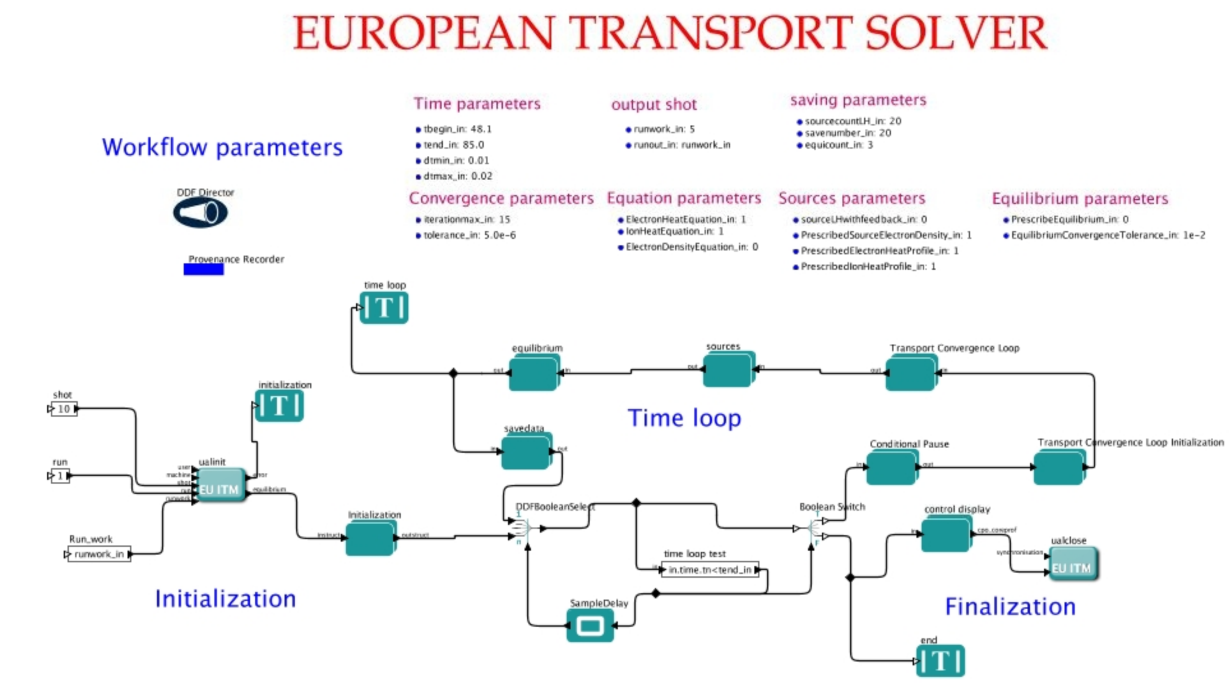
7.1.2.3 ETS_C

The ETS workflow (IMP3-ACT1) is used for 1-D transport simulation of a tokamak core plasma.

ETS workflow in KEPLER :

- uses as actors and composite actors from other IMPs, thus for the most recent versions of them please check with relevant project
- complex, but clearly structured workflow, which offers user friendly interface for configuring the simulation
- allows for easy modifications (*connecting new modules, or reconnecting the parts of the workflow*) through the easy graphical interface
- provides users with all updates through the version control system
- still actively developing tool

Contact persons: vincent.basiuk@cea.fr?subject=ETS%20in%20KEPLERphilippe.huynh@cea.fr?subject=ETS%20in%20KEPI



7.1.2.3.1 Trainings

Here is the training given in 2011 at GARCHING : Introduction training 2011, [449]training 2011 [450]

7.1.2.3.2 Download version of ETS_C workflows and actors

- INNSBRUCK 2011, see the README file in ~huynh/public/INNSBRUCK2011
- GARCHING 2011, see the README file in ~huynh/public/GARCHING2011

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last update: 2012-07-18 by coster

7.1.2.4 ETS Status

Package Name / Physics Module	*ETS-A* [451]	*ETS-C* [452]
EQILIBRIUM		
fixed boundary:		
BDSEQ	Ready for use	
EMEQ	Ready for use	
SPIDER	Ready for use	
SPIDER_IMP12	Ready for use	
CHEASE	Ready for use	validate
HELENA	Ready for use	
HELENA21		work in 4.09a problem when it doesn't find any equilibrium crash

[449] `https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf`
[450] `https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf`

Package Name / Physics Module	*ETS-A* [451]	*ETS-C* [452]
free boundary:		
CEDRES++	In progress/tests are planned for Nov.2014	validate (static mode, TBD evolution mode)
CREATE-NL		
FIXFREE		
EQFAST		work in 4.09a
FREEBIE		validate
MHD		
NTM	Ready for use	validate
SAWTEETH	Implemented/Tested/release date:Nov.2014	
Linear Stability Chain	Stand alone tests/implementation in ETS and release:2015	
TRANSPORT		
analytical & interpretative:		
From DATA BASE (interpretative)	Ready for use	
Edge Transport Barried (analytical)	Ready for use	
anomalous:		
ETAIGB	Ready for use	
BOHM-GYROBOHM	Ready for use	validate, + effect of rotation
GLF23	Implemented/Tested/release date:Nov.2014	to be tested (GLF23 installed in previous gateway not validated)
WEILAND	Implemented/Tested/release date:Nov.2014	
RITM	Implemented/Tested/release date:Nov.2014	
EWDM	Implemented/Tested/release date:Nov.2014	
TGLF	In progress/Some initial tests	
KIAUTO		installed (transport model based on scaling law)
neoclassical:		
NEOS	Ready for use	
NEOWES	Ready for use	
NEOART	Ready for use (probably not suggested as being too oscilatory)	
NCLASS	In progress	validate with composition (to be upgrade with compositions
NCLASS/FORCEBALL		installed (gives the radial electric field)

Package Name / Physics Module	*ETS-A* [451]	*ETS-C* [452]
HEAT,PARTICLE SOURCES & CURRENT DRIVE		
analytical & interpretative:		
From DATA BASE (interpretative)	Ready for use	
Gaussian	Ready for use	
impurity and particles:		
IMPURITY	Ready for use	
NEUTRALS	Ready for use	
PELLET	Ready for use	
ZNEUTRES		installed (simple module of CRONOS for neutral source terms)
ZRECYCLE		edge boundary for electron density
ECRH		
GRAY	Ready for use	Installed
TORAY-FOM		In preparation
TRAVIS	Tested	In preparation
TORBEAM		In preparation
ICRH		
TORIC	In progress	In preparation
ICDEP		Installed
FPSIM		Installed
NBI		
NEMO	Ready for use	Installed
BBNBI	Ready for use	In preparation
NBISIM	Ready for use	Installed
ASCOT	Ready for use	
RISK	Ready for use	In preparation
LH		
nuclear sources		
nuclearsim	Ready for use	Installed
CONTROLS		

Package Name / Physics Module	*ETS-A* [451]	*ETS-C* [452]
NBI power control	Ready for use	
ECRH power control	Ready for use	
ICRH power control	Ready for use	
Pellet frequency control	Ready for use	
COUPLING TO EDGE		
SOLPS	Tested at Fortran level	
DOCUMENTATION and MANUALS		
Physics Description	Description of the ETS [453]	
Numerics Description	Form of the standardize equations [454]	
Manuals	• ETS workflows in KEPLER [455] • ETS source in Fortran [456]	

last update: by

last update: 2015-02-03 by denka

7.1.3 Documentation for the ETS

- Current ETS Timeline (PDF) [457](MS Project) [458]
- Description of the ETS [459]
- Form of the standardize equations [460]
- ETS User Guide [461]
- ETS Status [462]
- ETS Doxygen Documentation (PDF) [463](HTML) [464]
- Pellets in ETS [465]

7.1.4 Presentations that discuss the ETS

- Presentation at ICNSP-2009 on the ETS [466]

[453] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[454] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[455] https://www.eufus.eu/documentation/ITM/html/ETS_in_KEPLER.html
[456] https://www.eufus.eu/documentation/ITM/html/ETS.html#ETS_2
[457] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[458] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.mpp
[459] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[460] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[461] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[462] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[463] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf
[464] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/ets/
[465] https://www.efda-itm.eu/ITM/html/pellet.html
[466] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt

- Movie from the presentation showing the evolution of the flux surfaces [467]
- Movie from the presentation showing the evolution of the plasma [468]

7.1.5 ETS Verification & Validation [469]

7.1.6 Other ETS related information

- Visualization of the repository activity (x264) [470]
- Visualization of the repository activity (wmv2) [471]

---

last update: 2019-01-31 by g2dpc

7.2 Edge Transport Simulator

The goal of this work is to adopt the edge code like SOLPS-B2 to be used within the ITM platform.

7.2.1 IMP3 General Grid Description and Grid Service Library

7.2.1.1 Resources

- GForge project page [472]
- Linking to library: general [473], specific [474]
- A tutorial talk. [475] Note: some slides might be out of date, please refer to the documentation.

7.2.1.2 Documentation

- **4.09a** Resources: Sources [476], Fortran Examples [477]
  Documentation:
  - Release v1.2: Fortran 90 [478], Python [479], ualconnector [480],
- **4.10a** Resources: Sources [481], Fortran Examples [482]
  Documentation:
  - Release v1.2: Fortran 90 [483], Python [484], ualconnector [485],

[467] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/psi_5_42.mpg
[468] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/comb_psi_5_42.900x400.mpg
[469] https://www.efda-itm.eu/ITM/html/imp3_ets_vv.html
[470] https://www.efda-itm.eu/ITM/imports/imp3/public/ets.mp4
[471] https://www.efda-itm.eu/ITM/imports/imp3/public/ets.wmv
[472] https://gforge6.eufus.eu/project/itmggd/
[473] https://itm.ipp.mpg.de/wiki/ITM/index.php/Libraries
[474] https://itm.ipp.mpg.de/wiki/ITM/index.php/AvailableLibraries#itmggd:_ITM_General_Grid_Description_Service_Library
[475] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/inner-documentation/cc2012-1/ggd-tutorial.pdf
[476] https://gforge6.eufus.eu/svn/itmggd/branches/4.09a/
[477] https://gforge6.eufus.eu/svn/itmggd/branches/4.09a/f90/src/examples/
[478] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.09a/f90
[479] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.09a/python
[480] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.09a/python/ualconnector.html
[481] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/
[482] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/f90/src/examples/
[483] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.10a/f90
[484] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.10a/python
[485] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/1.2/4.10a/python/ualconnector.html

7.2.1.3 Outdated documentation

This section collects information and documentation related to the general grid description.

- Some presentations:
  - A tutorial talk from 2011 [486],
  - General Meeting 2011: Short overview talk [487] and detailed presentation [488]
- Instructions how to get a copy of the Grid Service Library [489]
- Documentation for the ITM Grid Service Library: Fortran 90 [490], Python [491]
- A short manual for ualconnector and VisIt [492]

Some examples are included in the Grid Service Library distribution.

7.2.1.3.1 Example grids

7.2.1.3.2 Example grid details

This section describes a number of example grids and gives some examples for specific constructs (object lists, subgrids).

7.2.1.3.3 Example Grid #1: 2d structured R,Z grid

Note: the grids shown here are used in the unit tests of the grid service library implementation, i.e. the automated testing framework.

A 2d grid in (R,Z) constructed by combining two structured one-dimensional spaces. The spaces are defined as follows, they define nodes and edges as subobjects.

[486] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/inner-documentation/griddescription.pdf
[487] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/inner-documentation/gm2011/ggd-short.pdf
[488] https://gforge6.eufus.eu/svn/itmggd/branches/4.10a/inner-documentation/gm2011/ggd-long.pdf
[489] https://www.efda-itm.eu/ITM/html/imp3_gridservicelibrary.html
[490] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/f90/
[491] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/python/
[492] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/python/ualconnector.html

The whole grid then looks like this (attention, slightly differing scales in R and Z):

A couple of examples for object descriptor are given. Some explanations:

((1,1) (4,2)) = a 2d object (2d cell or face), implicitly created by combining the 1d object (edge) no. 4 from space 1 and the 1d object no. 2 from space 2.
((1,0) (2,4)) = a 1d object (edge), implicitly created by combining 1d object (edge) from space 1 with the 0d object (node) no. 4 from space 2.
((0,0) (2,2)) = a 0d object (node), implicitly created by combining 0d objects (nodes) no. 2 from space 1 and no. 2 from space 2.

7.2.1.3.4 Object classes

This section shows the different object classes present in the grid. The implicit numbering of the objects in a class is obtained by iterating over all subobjects defining the objects, lowest space first.

Object class (1,1): 2d cells/faces. They have the following implicit numbering:

Object class (1,0): 1d edges, aligned along the R axis (”r-aligned”). They have the following implicit numbering:

Object class (0,1): 1d edges, aligned along the Z axis (”z-aligned”). They have the following implicit numbering:

Object class (0,0): 0d nodes. They have the following implicit numbering:

7.2.1.3.5 Example 2: B2 grid

7.2.1.3.6 Object list examples

Some examples for object lists, to explain the concept and show the notation. All examples refer to the 2d structured R,Z example grid #1 given above.

Object descriptor
A single object (= and object descriptor), for object with object class (1,1), object index (4,2).

```
((1,1) (4,2))
```

Explicit object lists
An explicit object list is simply an enumeration of object descriptors. The ordering of the objects is given directly by their position in the list. Note that by definition, all objects in the list must be of the same class (An

implementation of an explicit object list should enforce this. If you need lists of objects with differing class, have a look at subgrids).

An explicit list of 2d cells (faces), listing the four corner cells of the grid in the order bottom-left, bottom-right, top-left, top-right:

```
( ((1,1) (1,1)),
  ((1,1) (5,1)),
  ((1,1) (1,4)),
  ((1,1) (5,4)) )
```

Implicit object lists
Implicit object lists use the implicit order of (sub)objects to form an efficient representation of (possibly large) sets of objects. They thus avoid explicit enumeration of individual objects as done in the explicit objects lists. The following examples demonstrate the implicit list notation.

Note: the implicit list notation is used in the Python implementation of the grid service library in exactly the form given here.

Selecting all indices
An implicit object list of all r-aligned edges:

```
((1,0) (0,0))
```

Object and subobject indices in the grid description start counting from 1, i.e. object no. 1 is the first object. The index 0 is special and denotes an undefined index. In this notation, it denotes all possible indices.

An implicit object list of the (z-aligned) boundary edges on the left boundary of the grid:

```
((0,1) (1,0))
```

The first entry of the index tuple denotes the first node in the r-space, the second entry denotes all edges in the z space. The implicit list denotes a total of 4 1d edges. Their implicit numbering is again given by iterating over all defining objects, lowest space first. The list therefore expands to

```
((0,1) (1,1))
((0,1) (1,2))
((0,1) (1,3))
((0,1) (1,4))
```

Selecting explicit lists of indices
An implicit object list of the (z-aligned) right and left boundary edges:

```
((0,1) ([1,6],0))
```

The first entry of the index tuple denotes a list of nodes in the r-space, more specifically the first and the last (=6th) node. The second entry denotes again all edges in the z space. The implicit list then denotes a total of 8 1d edges in the following order:

```
((0,1) (1,1))
((0,1) (6,1))
((0,1) (1,2))
((0,1) (6,2))
((0,1) (1,3))
((0,1) (6,3))
((0,1) (1,4))
((0,1) (6,4))
```

Selecting ranges of indices
An implicit object list of all 2d cells, except the cells on the left and right boundary.

```
((1,1) ((2,4),0))
```

The first entry of the index tuple denotes a range of edges in the r-space, more specifically the edges 2 to 4. The second entry of the index tuple denotes all four edges in the z-space. The implicit list then denotes a total of 12 2d cells in the following order:

```
((1,1) (2,1))
((1,1) (3,1))
((1,1) (4,1))
((1,1) (2,2))
((1,1) (3,2))
((1,1) (4,2))
((1,1) (2,3))
((1,1) (3,3))
((1,1) (4,3))
((1,1) (2,4))
((1,1) (3,4))
((1,1) (4,4))
```

All implementations of the grid service library define the constant GRID_UNDEFINED=0 to specify an undefined index. Use of GRID_UNDEFINED instead of 0 is advised to increase the readability of the code. The following notations are therefore equivalent

((1,0) (0,0)) = ((1,0) (GRID_UNDEFINED,GRID_UNDEFINED))
((0,1) (1,0)) = ((0,1) (1,GRID_UNDEFINED))

7.2.1.3.7 Subgrid examples

A subgrid is an ordered list of grid objects of a common dimension. The difference to object lists is that they can contain objects of different object classes.

The subgrid concept is central to storing data on grids. To store data, first a subgrid has to be defined. The objects in the grid have a fixed order, which then allows to unambiguously store the data associated with the objects in vectors.

Technically, a subgrid is an ordered list of object lists, of which every individual list is either explicit or implicit. The ordering of the objects in the subgrid is then directly given by the ordering of the object lists and the ordering of the grid objects therein.

Subgrid example
The following subgrid consists of all boundary edges of the 2d R,Z example grid #1, given as four implicit object lists.

```
((1,0) (0,1))    ! bottom edges
((0,1) (6,0))    ! right edges
((1,0) (0,5))    ! top edges
((0,1) (1,0))    ! left edges
```

Explicitly listing the objects in the order given by the subgrid gives:

```
1:  ((1,0) (1,1))    ! bottom edges
2:  ((1,0) (2,1))
3:  ((1,0) (3,1))
4:  ((1,0) (4,1))
```

```
5:  ((1,0) (5,1))
6:  ((0,1) (6,1))     ! right edges
7:  ((0,1) (6,2))
8:  ((0,1) (6,3))
9:  ((0,1) (6,4))
10: ((1,0) (1,5))     ! top edges
11: ((1,0) (2,5))
12: ((1,0) (3,5))
13: ((1,0) (4,5))
14: ((1,0) (5,5))
15: ((0,1) (1,1))     ! left edges
16: ((0,1) (1,2))
17: ((0,1) (1,3))
18: ((0,1) (1,4))
```

The number at the beginning of each line is the *local index* of the object, where local means locally in the subgrid. Note that, again, counting starts at 1.

---

last update: 2012-07-18 by coster

7.2.1.3.8 Grid service library

7.2.1.3.9 Using the grid service library

7.2.1.3.10 Setting up the environment

The grid service library requires the ITM data structure version 4.09a (or later). Before using it you have to make sure your environment is set up properly. The following section assumes you are using csh or tcsh on the Gateway.

First, your environment variables have to be set up properly. To check them do

```
echo $TOKAMAKNAME
```

It should return

```
test
```

Also do

```
echo $DATAVERSION
```

It should return

```
4.09a
```

(or some higher version number). If either of them returns something different, run

```
source $ITMSCRIPTDIR/ITMv1 kepler test 4.09a > /dev/null
```

and check the variables again.

Second, you have to ensure your data tree is set up properly. Do

```
ls ~/public/itmdb/itm_trees/$TOKAMAKNAME/$DATAVERSION/mdsplus/0/
```

If you get something like ”No such file or directory”, you have to set up the tree first by running

```
$ITMSCRIPTDIR/create_user_itm_dir $TOKAMAKNAME $DATAVERSION
```

and then do the previous check again.

7.2.1.3.11 Checking out and testing the grid service library

To be able to get the code of the grid service library, you have to be a member of the ITM General Grid description (itmggd) project (you can apply for this here [493]).

Once you are a member, you can check out the code by

```
svn co https://gforge6.eufus.eu/svn/itmggd itm-grid
```

Then you can run the unit tests for the grid service library by

```
cd itm-grid
source setup.csh
```

This will setup environment variables (especially OBJECTCODE) and aliases. Then do

```
testgrid setup
```

This will set up the build system for the individual languages. It will also build and execute a Fortran program that writes a simple 2d example grid stored in an edge CPO into shot 1, run 1.

To actually run the tests do

```
testgrid all
```

This will go through the implementations in the different languages (F90, Python, ...) and run unit tests for every on of them. If all goes well, it should end with the message

```
Test all implementations: OK
```

If this is not the case, something is broken and must be fixed.

7.2.1.3.12 Example applications (outdated)

Note: this is a bit outdated. Have a look here. [494]

7.2.1.3.13 Plotting 3d wall geometry with VisIt (temporary solution, not required any more)

This example plots a 3d wall representation stored in the edge CPO (in the future, this information will be stored in the wall CPO). The example data used here is generated by a preprocessing tool which is part of the ASCOT code.

1. Check out the grid service library (See above. You don’t necessarily have to run the tests)
2. Change to the python/ directory and setup the environment:

   ```
   cd itm-grid/python/; source setup.csh
   ```

[493] https://gforge6.eufus.eu/project/itmggd/

[494] https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/python/ualconnector.html

3. Edit the file itm/examples/write_xdmf.py to use the right shot number
4. Run it (still in the python/ directory of the service library) with

   ```
   python26 itm/examples/write_xdmf.py
   ```

   This will create two files: wall.xmf and wall.h5
5. Start visit with

   ```
   visit23
   ```

   and open the wall.xmf file. Then select Plot-¿Mesh-¿Triangle and click on the "Draw" button.

7.2.1.3.14 Using UALConnector to visualize CPOs using the general grid description

UALConnector allows you to bring data directly from the UAL into VisIt.

1. Check out the grid service library (See above. You don't necessarily have to run the tests)
2. Run UALConnector. Examples:

   ```
   ./itm-grid/ualconnector -s 9001,1,1.0 -c edge -u klingshi -t test -v 4.09a
   ```

   ```
   ./itm-grid/ualconnector -s 15,1,1.0 -c edge -u klingshi -t test -v 4.09a
   ```

3. When finished, close VisIt and terminate the UALConnector by typing 'quit'.

You don't even have to check out the service library. UALConnector is made available at

```
~klingshi/bin/itm-grid/ualconnector
```

, i.e.

```
~klingshi/bin/itm-grid/ualconnector -s 9001,1,1.0 -c edge -u klingshi -t test -v 4.09a
```

```
~klingshi/bin/itm-grid/ualconnector -s 15,1,1.0 -c edge -u klingshi -t test -v 4.09a
```

---

last update: 2019-01-31 by g2dpc

7.2.1.3.15 IMP3 General Grid Description and Grid Service Library - Tutorial

7.2.1.3.16 1. Setup your environment

```
echo $DATAVERSION
echo $TOKAMAKNAME
```

should give "4.09a" and "test". If not, run

```
source $ITMSCRIPTDIR/ITMv1 kepler test 4.09a > /dev/null
```

To copy the tutorial files:

```
cp -r ~klingshi/bin/itm-grid ~/public
```

Switch to the right version of the PGI compiler:

```
module unload openmpi/1.3.2/pgi-8.0 compilers/pgi/8.0
module load compilers/pgi/10.2 openmpi/1.4.3/pgi-10.2
```

To set up the environment:

```
cd $HOME/public/itm-grid/f90
source setup.csh
```

7.2.1.3.17 2. Compile & run examples

2d structured grid write example Source file is at:

```
src/examples/itm_grid_example1_2dstructured_servicelibrary.f90
```

Compile:

```
make depend
make $OBJECTCODE/itm_grid_example1_2dstructured_servicelibrary.exe
```

Run:

```
$OBJECTCODE/itm_grid_example1_2dstructured_servicelibrary.exe
```

2d structured grid read example Source file is at:

```
src/examples/itm_grid_example1_2dstructured_read.f90
```

Compile:

```
make $OBJECTCODE/itm_grid_example1_2dstructured_read.exe
```

Run:

```
$OBJECTCODE/itm_grid_example1_2dstructured_read.exe
```

7.2.1.3.18 3. Visualize

To visualize the data written by the example program

```
~klingshi/bin/itm-grid/ualconnector -s 9001,1,0.0 -c edge
```

To visualize a more complex dataset

```
~klingshi/bin/itm-grid/ualconnector -s 17151,899,1000.0 -c edge -u klingshi -t aug
```

Combining data from two CPOs:

```
~klingshi/bin/itm-grid/ualconnector -s 17151,898,1000.0 -c edge -s 17151,899,1000.0 -c edge -u klingsh
```

---

last update: 2019-01-31 by g2dpc

7.3 Core-Edge Coupled Transport Simulations

The goal of this work is to implement a direct scheme for coupled core-edge transport simulations. For the core the ETS, the core impurity code and the core neutrals code will be used. For the edge SOLPS-B2 will be used. At the end of 2011, a manual coupling procedure had been implemented, as described in this document [495].

7.3.1 Activities 2012

In 2012 work is ongoing to automate this procedure. The following steps have occurred:

- Modified the main part of SOLPS-B2 to introduce
  - "b2mn_init", a routine to initialize SOLPS-B2
  - "b2mn_step", a routine that can be called repeatedly to advance the edge plasma simulation
  - "b2mn_fin", a routine to finalize SOLPS-B2

  These changes involved splitting "b2mndr" into "b2mndr_0", "b2mndr_1" and "b2mndr_2"
- The introduction of a new routine "b2mn_ets" which is called with input CPOs "coreprof", "coreimpur" and "coreneutrals", and returns output CPOs "coreprof", "coreimpur", "coreneutrals" and "edge". The routine:
  - calls "b2mn_init" on the first call
  - based on the input core CPOs, alters the SOLPS-B2 boundary conditions before calling "b2mn_step", and then revises the boundary conditions in the output core CPOs
  - calls "b2mn_fin" at the end of the calculation
- Changes to many of the input/output routines in SOLPS-B2 so that
  - input data is looked for in the present directory, it's parent, or the sibling "baserun" directory
  - output files that are already present no longer cause the code to stop with an error message

  The result of this is that SOLPS-B2 no longer needs to be run by the previously required Makefile which copied input files into a run directory.
- The modification of the ETS Fortran workflow code "eq_ets_test" to include calls to "b2mn_ets".
- The Fortran workflow runs coupled calculations, and verification runs are currently in progress.
  - A problem in the UAL which causes the message "No more slots available for arrays of structures" and the program then to hang has been identified
  - Fixes in the 4.09a ETS were back-ported from 4.10a, and problems with impurity transport coefficients identified and fixed. There may still be a problem with impurity energy losses.
  - D and D+C+Ar+Ne+He runs are both being done

---

last update: 2013-06-18 by denka

7.4 IMP3 DATA (shots available from IMP3 simulations)

Shots stored in the private data base of IMP3 members are generally not validated. Please do not publish without contacting the data provider.

[495] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf

7.4.1 TCV shots

Following simulations are available for TCV machine:

7.4.1.1 TCV 4.10a shots

Following simulations are available for TCV machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = *tcv* and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/tcv/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/TCV $(MDSPLUS_TREE_B
```

7.4.1.1.1 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description

7.4.1.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
38012	2	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/SPIDER/BGB/GAUSS	ETS predictive ad hoc run [time: ***0.1-1.1*** ; composition: ***e,D*** ; ip= ***0.65MA*** Bt= ***1.5T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [0.6 MW to el]*** ; Transport: ***BGB*** ; Impurity: ***OFF***]
38012	3	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BGB/GAUSS/IMPURITY	ETS predictive ad hoc run [time: ***0.1-1.1*** ; composition: ***e,D,C*** ; ip= ***0.65MA*** Bt= ***1.5T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [0.6 MW to el]*** ; Transport: ***BGB*** ; Impurity: ***ON***]

---

last update: 2019-01-31 by g2dpc

7.4.2 MAST shots

Following simulations are available for MAST machine

7.4.2.1 MAST 4.10a shots

Following simulations are available for MAST machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***mast*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/mast/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/MAST $(MDSPLUS_TREE_
```

7.4.2.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [496]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
26864	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***40.153-40.428*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma
28282	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***40.203-40.40.353*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma

7.4.2.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
26864	2	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE	ETS interpretative shot (single slice) [time: ***40.27*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma
28282	2	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE	ETS interpretative shot (single slice) [time: ***40.27*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma

[496] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

7.4.2.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
26864	*3*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE/BGB	ETS predictive run [time: ***40.27-40.32*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma; predictive equations: ***Jpar,Te,Ti*** ; ***ni*** evolution from input TRANSP shot; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]
28282	*3*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE/BGB	ETS predictive run [time: ***40.27-40.32*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma; predictive equations: ***Jpar,Te,Ti*** ; ***ni*** evolution from input TRANSP shot; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]

7.4.3 AUG shots

Following simulations are available for ASDEX-Upgrade machine:

7.4.3.1 AUG 4.10a shots

Following simulations are available for AUG machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***aug*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/aug/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/AUG $(MDSPLUS_TREE_B
```

7.4.3.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [497]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
28906	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***41.001-45.0*** ; composition: ***e,D,C*** ; ip= ***0.508MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Ti,Te,nz*** ; only fully-stripped C is present]

[497] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

7.4.3.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	**Run**	**CPOs**	**user**	**generated with**	**description**
28906	*4*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE	ETS interpretative run [time: ***42.0-43.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF*** ; Impurity: ***INTERPRETATIVE***]
29072	*3*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative ad hoc run [time: ***0.1-1.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.49T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]

7.4.3.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	**Run**	**CPOs**	**user**	**generated with**	**description**
28906	*5*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]
28906	*6*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BgB/IMPURITY	ETS predictive run [time: ***43.0-44.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti,nz*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***ON***]
28906	*7*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***OFF***]
28906	*8*	equilibrium coreprof coresource coretransp	denka	ETS/SPIDER/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***OFF***]

7.4.3.2 AUG 4.09a shots

Following simulations are available for ASDEX-Upgrade machine in UAL 4.09a:

The shots can be accessed by setting

```
TOKAMAKNAME = aug
%
\newline
%
UAL = 4.09a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	**Run**	**CPOs**	**user**	**generated with**	**description**
17151	0	equilibrium limiter	coster	aug_eq.py	equilibrium and limiter derived from AUG shotfile using aug_eq.py
17151	13	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=9

Shot	Run	CPOs	user	generated with	description
17151	14	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=17
17151	15	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=33
17151	16	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=65
17151	17	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=129
17151	18	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=257
17151	400 - 407	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D)
17151	500 - 505	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=9
17151	700 - 702	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=17
17151	800 - 802	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=33
17151	20400 - 20407	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D)
17151	20500 - 20505	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)
17151	20700 - 20702	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)
17151	20800 - 20802	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)

last update: 2013-07-31 by denka

7.4.4 JET shots

Following simulations are available for JET machine:

7.4.4.1 JET 4.10a shots

Following simulations are available for JET machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***jet*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/jet/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/JET $(MDSPLUS_TREE_B
```

7.4.4.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [498]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
71827	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
77922	*2*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
81856	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
82794	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles

7.4.4.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
77922	*4*	equilibrium coreprof coresource coretransp	denka	ETS/EMEQ	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
77922	*5*	equilibrium coreprof coresource coretransp	denka	ETS/SPIDER	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
77922	*6*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]

7.4.4.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

[498] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

Shot	Run	CPOs	user	generated with	description
76791	*11*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CHEASE/BGB/NTMETS	ETS run with NTM [time: ***49.9-50.9*** ; composition: ***e,D*** ; ip= ***1.6MA*** Bt= ***2.0T,*** ; predictive equations: ***Jpar,ni,Ti,Te*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG+MHD***]
77922	*12*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CHEASE/GEM/BBNBI/NEUTRALS	ETS run with GEM [time: ***48.04-48.22*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0*** ; sources: ***NBI[10MW], Neutrals[2*10 1/s]*** ; Transport: ***GEM(256 cores)+BG***]
81856	*4*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CEASE/BGB/BBNBI /IMPURITY/NEUTRALS	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG***]
81856	*5*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CEASE/BGB/BBNBI /IMPURITY/NEUTRALS Mgnetic axis: Zmag= ***+15 cm***	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG***]
81856	*6*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/SPIDER/BGB/Gauss /IMPURITY/NEUTRALS Mgnetic axis: Zmag= ***+15 cm***	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***Gauss[10MW]*** ; Transport: ***BGB+BG***]

last update: 2019-01-31 by g2dpc

7.4.4.2 JET 4.09a shots

Following simulations are available for JET machine in UAL 4.09a:

The shots can be accessed by setting

```
TOKAMAKNAME = jet
%
\newline
%
UAL = 4.09a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
71827	21	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi equation only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	22	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	23	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with EMEQ	Start from a JET case (with C as an impurity, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter

last update: 2013-06-27 by dpc

7.4.4.3 JET 4.08b shots

Following simulations are available for JET machine in UAL 4.08b:

The shots can be accessed by setting

```
TOKAMAKNAME = jet
%
\newline
%
UAL = 4.08b
```

Shot	Run	CPOs	user	generated with	description
71827	21	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi equation only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	22	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	23	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with EMEQ	Start from a JET case (with C as an impurity, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
78092	10003	equilibrium	coster	test_equilibrium_augmenter	PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter added to konz/78092/3

---

last update: 2014-11-12 by dpc

---

last update: 2013-06-27 by denka

7.4.5 ITER shots

Following simulations are available for ITER machine:

7.4.5.1 ITER 4.10a shots

Following simulations are available for ITER machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***iter*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/iter/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/ITER $(MDSPLUS_TREE_
```

7.4.5.1.1 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).

Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
35441	*5*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative run [time: ***1.0-2.0*** ; composition: ***e,D,T,He*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
35441	*6*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE	ETS interpretative run [time: ***0.1-1.0*** ; composition: ***e,D,T,He,Be,Ne,W*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF*** ; Impurity: ***coronal***]

7.4.5.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
35441	*8*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BGB/BBNBI	ETS predictive run [time: ***1.0-2.0*** ; composition: ***e,D,T,He,Be,Ne,W*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar,ni,Ti,Te*** ; sources: ***NBI{60MW]*** ; Transport: ***BGB*** ; Impurity: ***coronal***]

---

last update: 2019-01-31 by g2dpc

---

last update: 2013-07-19 by denka

7.4.6 DEMO1 shots

There are following shots available for DEMO1 [puls] machine
!!! PLEASE note that these date are not the official release of DEMO design. It is just a test ITM copy.

7.4.6.1 DEMO1 4.10a shots

Following simulations are available for DEMO1 machine in UAL 4.10a:

!!! DATA are based on the ITM test release and can not be used for the scientific publications about DEMO

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***demo1*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/demo1/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/DEMO1 $(MDSPLUS_TREE
```

7.4.6.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [499]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
1	*1*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; plasma boundary is prescribed from earlier FBE simulations / very shaped cross-section - difficult for equilibrium solvers to work with]
1	*2*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; plasma boundary is defined analiticaly]
1	*11*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; slightly smoothed boundary compared to the run 1]
2	*11*	equilibrium coreprof	denka	configured manually	ETS input shot, ***flat density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; slightly smoothed boundary compared to the run 1]

7.4.6.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
1	*3*	equilibrium coreprof coresource coretransp	denka	ETS/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / shaped boundary*** [time: ***0.1-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*4*	equilibrium coreprof coresource coretransp	denka	ETS/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / analytical boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*12*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*13*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive run / ***peaked density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T,Ar,W*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [26MW to el / 192MW to D / 192 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***ON*** ; radiation fraction: ***50%*** ; current drive: ***35%*** ; Zeff: ***3.0***]
2	*12*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive run / ***flat density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T,Ar,W*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [26MW to el / 192MW to D / 192 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***ON*** ; radiation fraction: ***50%*** ; current drive: ***35%*** ; Zeff: ***3.0***]

7.4.7 TEST shots

Following simulations are available for TEST machine:
!!! There is no clear defenition of what the TEST machine is !!!

last update: 2013-06-27 by dpc

[499] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

7.5 IMP3 meetings

7.5.1 2014/12 SOLPS Optimization Meeting (Garching)

7.5.1.1 SOLPS Optimization December 2014, Garching

- *Plans for development and release of SOLPS-ITER* (ppt [500]), by X. Bonnin
- *Comparison of different iterative schemes in B2 for full-scale ITER cases. (Task WPCD-SOLPS-OPT)* (pdf [501]) by V. Kotov
- *Convergence and accuracy of coupled FV/MC codes* (ppt [502]) by M. Baelmans
- *On the modeling of drift fluxes with self-consistent electric field in the SOLPS code* (pdf [503]) by O. Maj
- *Report: Application of the Parareal Algorithm to SOLPS* (pdf [504]) by D. Samaddar
- *SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION* (ppt [505]) by Y. Marandet
- *PARSOLPS* (pdf [506]) by T. Feher
- *Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor* (ppt [507]) by D. P. Coster

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last update: 2015-08-07 by dpc

7.5.2 2011/03 WS-CC (Cadarache)

7.5.2.1 WS-CC March 2011, Cadarache

- *Presentation to ISM about the ETS* (ppt [508], ETS Movie [509], SOLPS ELM Movie [510], SOLPS ELM Movie (Zoom) [511]), by D. P. Coster
- *The ITM general grid description: A tutorial* (pdf [512]) by H.-J. Klingshirn
- *Pictures taken during the ITER tour* (I [513], II [514])

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last update: 2012-04-26 by coster

7.5.3 2010/09/13-17 ITM General Meeting in Lisbon

7.5.3.1 Posters

- *Status of Edge Codes on the Gateway* (ppt [515]), by F. Subba et al.
- *Status of grids in CPOS + edge CPOS* (ppt [516]), by F. Subba et al.

[500] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[501] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf
[502] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[503] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[504] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS_report_DSamaddar_GarchingDec2014.pdf
[505] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[506] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/tfeher_solps_WPCD.pdf
[507] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[508] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[509] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/comb_psi_5_42.900x400.mpg
[510] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/24204_rqahesum.mpg
[511] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/24204_rqahesum_div.mpg
[512] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
[513] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/P1200086.JPG
[514] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/P1200088.JPG
[515] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[516] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt

- *European Transport Workflows - first results, validation and benchmark* (pdf [517]), by V. Basiuk et al.
- *European Transport Solver* (pdf [518]), by D. Coster et al.
- *Validation and verification of the European Transport Solver* (pdf [519]), by D. Kalupin et al.
- *Full tokamak simulation global workflow case study* (pdf [520]), by J. Lister and K. Besseghir

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last update: 2012-04-26 by coster

7.5.4 2010/03 WS-CC (Garching)

7.5.4.1 WS-CC March 2010, Garching

- *Agenda* (pdf [521]), by D. P. Coster
- *Introduction* (ppt [522]), by D. P. Coster
- *Talk given at the JET TF-T Meeting earlier in the year on the ETS* (ppt [523]), (mpeg [524]) (mpeg [525]) by D. P. Coster
- *ETS Status and Standards (reduced)* (ppt [526]), by D. P. Coster
- *ETS Numerics Quality Assessment / Verification* (pdf [527]), by G. Pereverzev
- *Accuracy tests* (pdf [528]), by G. Pereverzev
- *ETS benchmarking and verification: Intermediate report (ASTRA results)* (pdf [529]), by G. Pereverzev
- *Proposal for ETS verification and benchmarking procedure* (pdf [530]), by G. Pereverzev
- *Introduction to ISIP tools* (ppt [531]), by F. Imbeaux
- *Exp2ITM : populate ITM database with experimental data* (ppt [532]), by J. Signoret and F. Imbeaux (presented by Rui Coelho)
- *Introduction to ISE* (ppt [533]), by J. Signoret and P. Huynh
- *Equilibrium Reconstruction with EQUAL* (ppt [534]), by W. Zwingmann
- *AMNS work* (ppt [535]), by L-G Eriksson
- *ITER Integrated Modelling Expert Group - a brief overview* (pdf [536]), by Par Strand

[517] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[518] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[519] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf
[520] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[521] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Agenda.pdf
[522] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/2010-03_WS-CC_ETS_v1.ppt
[523] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[524] https://www.efda-itm.eu/ITM/imports/imp3/public/psi_5_42.mpg
[525] https://www.efda-itm.eu/ITM/imports/imp3/public/comb_psi_5_42.900x400.mpg
[526] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
[527] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/CodeCampPereverzev.pdf
[528] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/AccuracyAssessment.pdf
[529] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/BenchmarkAstra.pdf
[530] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/VandB-1st.pdf
[531] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISIP.ppt
[532] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Basics_on_exp2ITM_v2.ppt
[533] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt
[534] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[535] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
[536] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ITER_Integrated_Modelling_Expert_Group.pdf

- *EFDA Transport Topical Group: survey of research activities* (ppt [537]), presented by C. Angioni on behalf of C. Hidalgo (Chair), C. Angioni, C. Bourdelle, P. de Vries (co-Chair)

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last update: 2012-04-26 by coster

7.5.5 2009/03-04 WS-CC (Garching)

7.5.5.1 Kick-Off Meeting, 2009-02-06

- *ETS Status and Standards (v1)* (pdf [538]), by D. P. Coster
- *Requests to other projects* (doc [539]), by D. P. Coster
- *The Universal Access Layer User Guide (2009-03-03)* (pdf [540]), by G. Manduchi, F. Imbeaux and M. Haefele
- *Work plan and Resources for the ETS in 2009* (doc [541]), by D. P. Coster
- *ITM gateway users's guide* (pdf [542]), by B. Guillerminet, F. Iannone, F. Imbeaux, G. Manduchi and L. Eriksson
- *Current status of the ETS (present at the JET TFT meeting)* (pdf [543]), by D. P. Coster, D. Kalupin, V. Basiuk, R. Stankiewicz, R. Zagorski, J.F. Artaud, S. Gowacz, Ph. Huynh, S. Moradi, G. Pereverzev, G. Ramogida, P. Strand M. Tokar and J. Weiland
- *ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009)* (pdf [544]), by D. P. Coster
- *Closure of equilibriumtransport set / Data flow* (pdf [545]), by G. Pereverzev
- *ETS transport equations and list of variables (2008-08-01)* (pdf [546]), by D.Kalupin, G.Pereversev, R.Stankiewicz
- *EUFORIA Vision* (pdf [547]), by EUFORIA
- *Data access for Fusion Simulation* (pdf [548]), by EUFORIA
- *Benchmark comparison ASTRA JETTO* (pdf [549]), by F. Koechl (?)

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[537] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
[538] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[539] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[540] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
[541] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Work_plan_and_Resources_for_the_ETS_in_2009_v3.doc
[542] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
[543] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/2009_JET_TFT_ETS.pdf
[544] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[545] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EqTrInterface.pdf
[546] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_TRANSPORT_EQUATIONS.pdf
[547] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/
[548] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EUFORIA_Data_access.ppt
[549] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Benchmark_Comparison_ASTRA_JETTO-2.pdf

7.5.6 2009/02 Kick-Off

7.5.6.1 Kick-Off Meeting, 2009-02-06

- *IMP3 2009 Kick-Off* (pdf [550]), by D. P. Coster
- *Collaboration Issue: Standards* (pdf [551]), by D. P. Coster
- *ETS Road Map (2009)* (doc [552]), by D. P. Coster

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last update: 2012-04-26 by coster

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last update: 2015-01-07 by dpc

7.6 IMP3 formal tasks

7.6.1 The list of IMP3 tasks for 2011

7.6.1.1 WP11-ITM-IMP3-ACT1: Maintenance, continuing development, verification and validation of the ETS

The following tasks are grouped under this activity:

1. Maintenance support for the ETS including the addition of new modules within the Kepler workflows (many of the new modules will come from other IMPs)
2. Release of a number of standard Kepler workflows
3. A free boundary version of the ETS (in strong collaboration with IMP12)
4. Verification of ETS modules and workflows (in collaboration with other IMPs)
5. Validation of ETS modules and workflows (in collaboration with other IMPs)
6. Adaptation and maintenance of 0D codes (for fusion reactor studies) in collaboration with ISM

The deliverables for 2011 are:

- Kepler workflows: Release of the workflows
- Free Boundary ETS: Release of the workflow
- Verification report(s): Verification report(s)
- Validation report(s): Validation report(s)
- Integration of 0-D codes: Functioning 0D codes with documentation integrated into the Kepler environment and using the UAL

7.6.1.2 WP11-ITM-IMP3-ACT2: Implementation, integration, verification and validation of edge codes

The following tasks are grouped under this activity:

1. Implementation and release (including verification and validation) of a number of edge codes using CPOs (See appendix A, Phase V of "ITM modules release cycle")
2. Definition, implementation, verification and the start of validation of a number of edge only workflows using the edge codes
3. Further development of edge-core coupled workflow(s) including verification and the start of validation

[550] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[551] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[552] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc

The deliverables for 2011 are:

- Implementation report: Report on the implementation of the edge codes
- Verification report: Report on the verification of the edge codes
- Validation report: Report on the validation of the edge codes

7.6.1.3 Work Breakdown

Work Description	*Associate*	*Manpower Baseline Support (ppy)*	*Manpower Priority Support (ppy)*	*Hardware, Cons., Other Expenditure Priority Support (kEuros)*
WP11-ITM-IMP3-ACT1-01/CCFE/BS	CCFE	0.10	0.00	0.00
WP11-ITM-IMP3-ACT1-01/CEA	CEA	0.00	1.10	0.00
WP11-ITM-IMP3-ACT1-01/HAS	HAS	0.00	0.30	0.00
WP11-ITM-IMP3-ACT1-01/Hellenic Republic	Hellenic Republic	0.50	0.00	0.00
WP11-ITM-IMP3-ACT1-01/IPP	IPP	0.00	0.20	0.00
WP11-ITM-IMP3-ACT1-01/IPPLM	IPPLM	0.00	1.00	0.00
WP11-ITM-IMP3-ACT1-01/IST	IST	0.00	0.35	0.00
WP11-ITM-IMP3-ACT1-01/VR	VR	0.30	0.00	0.00
WP11-ITM-IMP3-ACT1-02/CCFE	CCFE	0.00	0.10	0.00
WP11-ITM-IMP3-ACT1-02/CEA	CEA	0.70	0.00	0.00
WP11-ITM-IMP3-ACT1-02/HAS	HAS	0.20	0.00	0.00
WP11-ITM-IMP3-ACT1-02/IST	IST	0.00	0.50	0.00
WP11-ITM-IMP3-ACT1-02/VR	VR	0.00	0.08	0.00
WP11-ITM-IMP3-ACT1-03/IST	IST	0.00	0.45	0.00
WP11-ITM-IMP3-ACT1-03/IST/BS	IST	0.10	0.00	0.00
WP11-ITM-IMP3-ACT2-01/CEA	CEA	0.20	0.00	0.00
WP11-ITM-IMP3-ACT2-01/FOM_Rijnhuizen	FOM_Rijnhuizen	0.20	0.00	0.00
WP11-ITM-IMP3-ACT2-01/FZJ	FZJ	0.20	0.00	0.00
WP11-ITM-IMP3-ACT2-01/IPP/BS	IPP	0.25	0.00	0.00
WP11-ITM-IMP3-ACT2-01/IPPLM	IPPLM	0.00	0.10	0.00
WP11-ITM-IMP3-ACT2-01/TEKES	TEKES	0.00	0.17	0.00
WP11-ITM-IMP3-ACT2-02/IPP	IPP	0.00	0.05	0.00
WP11-ITM-IMP3-ACT2-02/IPP/BS	IPP	0.20	0.00	0.00
WP11-ITM-IMP3-ACT2-02/TEKES/BS	TEKES	0.10	0.00	0.00
WP11-ITM-IMP3-ACT2-03/IPP	IPP	0.00	0.30	0.00
WP11-ITM-IMP3-ACT2-03/IPP/BS	IPP	0.15	0.00	0.00
Total		3.20	4.70	0.00

7.6.2 The list of IMP3 tasks for 2010

Task	Association	Name	Type of support	Manpower (ppy)		Comments from ECOM
				proposed	accepted	
WP10-ITM-IMP3-ACT1-T1: *ETS maintenance*	CEA	Philippe Huynh	PS	0.17	0.17	Continued with extended scope including WP09-ITM-IMP3-T2 "Maintenance, continuing development, verification (29) and validation (29) of the ETS"Development related to kepler (29) framework, and the UAL (29) softwareComplex workflow inside KEPLERReport on the 0 D code
		Vincent Basiuk	PS	0.25	0.25	
		Jean-François Artaud	PS	0.08	0.08	
		Frédéric Imbeaux	PS	0.08	0.08	
	ENEA - Frascati	Massimo Marinucci	PS	0.17	0.17	The proposed activity concerns the point (6) of the "Description of work": "Verification reports describing the comparison of the ETS against and analytic results and existing 1d transport codes". Dr. Marinucci is proposing the porting (eventually in collaboration with other institutions) of the JETTO code on the Gateway (29) , in order to verify the ETS against it.
	IST	Jorge Ferreira	PS	0.25	0.25	1. Code Integration, maintenance and verification of the ETS. 2. Development of standard Kepler workflows.
		António Figueiredo	PS	0.35	0.35	
WP10-ITM-IMP3-ACT1-T2: *Finalization of IMP3 core modules*	VR	Pär Strand	BS	0.08	0.08	Introduce and maintain the TCI module covering different anomalous transport modules (Weiland, GLF23, RITM and EDWM) into the ETS framework. Focus on work here is on the code interfaces. In particular, the EDWM component (Extended version of teh WEILAND model provide drift wave based impurity transport coefficients.)
	HAS	Kinga Gál	PS	0.15	0.15	Association-HAS has developed a C++ pellet ablation module for ETS during 2009. This module still needs some testing and it should be implemented in ETS in the beginning of 2010. The pellet module is planed to be used for ITER simulations in the next year.
WP10-ITM-IMP3-ACT1-T3: *Free boundary ETS*	No proposals have been received		BS	-	-	-
WP10-ITM-IMP3-ACT1-T4: *ETS V&V*	CCFE	Irina Voitsekhovitch	PS	0,1	0,1	Verification of the ETS transport solver and models implemented in ETS by comparing them with the ASTRA code (GLF23, Coppi-Tang, Bohm-gyroBohm). Participation in the implementation of other transport models in ETS. Development of the coupling with FMCFM interface if requested. Participation in testing of the other modules (NBI, ICRH, current diffusion) can be envisaged.Validation of the ETS code on MAST experimental data.Written validation report describing the comparison of the ETS workflows against MAST experiment or first principles based models.JET can provide datasets (subject to agreement of EFDA JET Leader) for analysis & hardware to run jobs for comparison with ETS solver results.ETS activities will be paralleled by studies of fast transient phenomena on MAST (pellet injection) taking advantage of the new high spatial and temporal resolution Thomson scattering system.NOTE: In the Call it states that Priority and Baseline Support are available for this Task, but only Priority Support is available in ECOM. CCFE could split this proposal between Priority and Baseline if required.
		James Conboy	PS	0,1	0,1	
		Luca Garzotti	PS	0,1	0,1	
		Robert Akers	PS	0,1	0,1	
	IPP	Grigory Pereverzev	PS	0,25	0,25	If not selected as deputy project leader, then Dr Pereverzev will contribute under this task to the development of the ETS (V&V). If he is selected as a deputy project leader, his contribution will not be the full requested 0.25 but somewhat lower (to be negotiated).

Task	Association	Name	Type of support	Manpower (ppy)		Comments from ECOM
				proposed	accepted	
	IPPLM	Roman Stankiewicz	PS	0.5	0.5	Verification and validation of the ETS for stiff transport problem.Testing of the ETS for stiff transport and barrier dynamics for the analytical transport model for barrier. The task is the continuation of the work done in the frame of WP10-ITM-IMP3. The manufactured method of analytical solution generation was developed for discontinuous model of diffusion coefficients leading to transport barrier. The goal of verification is to check the numerical methods used in the ETS and extend the method of verification to continuous model of diffusion coefficient. The tests will be performed in order to check if the numerical procedure implemented in ETS can reproduce the position of transport barrier and its dynamics given by the analytical solutions. Also the verification of the ETS against the empirical data will be performed. The activity in the task will be carrying on in 2011 with test of the ETS combined with equilibrium and elaborated transport model in context of application to ITER.
		Irena Ivanova-Stanik	PS	0.5	0.5	
		Dariusz Twarog	PS	0.25	0.25	
	VR	Pär Strand	PS	0.04	0.04	-
	IPP	Yuriy Turkin	PS	0	0	Wishes to remain on the IMP3 mailing list.
	IST	João Bizarro	PS	0.25	0.25	1. Comparison of the ETS against analytic results and existing 1D transport. 2. Comparison of the ETS workflows against experiment or first principles based models.
		Luís Alves	PS	0.25	0.25	
	Hellenic Republic	HEINZ ISLIKER	BS	0.2	0.2	Further develop the 1D Fokker-Planck solver CHET1, incorporate non-Markovian processes, compare with ETS, verify and validate both codes(a) Continue the comparison of CHET1 (1-D transport code of the pseudo-spectral type, using expansions in terms of Chebyshev polynomials), with the ETS, provide reports on our comparison, verification and validation, as well as on the use of the ETS. Also, investigate various boundary conditions, in particular the case of free boundary conditions. (b) In parallel, development of a Fokker-Planck-type equation in action space which incorporates a time and action dependent diffusion tensor capable of capturing resonant and non-resonant interactions of spatiotemporally limited waves and barely circulating and/or weakly trapped particles. Reduction to 1-D Fokker-Planck inhomogeneous, time dependent diffusion coefficient. Interfacing with CHET1 and further comparison with ETS.
		YANNIS KOMINIS	BS	0.1	0.1	
		THEOFILOS PISOKAS	BS	0.2	0.2	
WP10-ITM-IMP3-ACT1-T5: *0-D codes*	No proposals have been received		BS	-	-	-
WP10-ITM-IMP3-ACT2-T1: *ITER Scenario Modelling*	CCFE	Luca Garzotti	BS	0.9	0.9	The activity will focus on the modelling of particle transport and density control in ITER plasma. Until now good results have been obtained with 1.5 dimensional codes and semi-empirical transport models. The activity will continue on the same line and include the use of the GLF23 transport model in presence of pellet fuelling and the analysis of the impact of pellet injection on the boundary conditions.Proposed people to be involved from CCFE are G Corrigan, L Garzotti, R Kemp, V Parail, S Saarelma, M Valovic and I Voitsekhovitch.
	IPP	Grigory Pereverzev	BS	0.08	0.08	Contribute expertise in core modelling.
	IST	Jorge Ferreira	BS	0.25	0.25	- Hybrid and Advanced Scenario modelling and rotation prediction (29) for ITER within ETS and JINTRAC modelling suites.- Use EDGE2D/EIRENE, 2D edge transport code, to study the impurity transport that are released from the walls, the seeded impurities and the ash that crosses the last closed flux surface.- Use JETTO/SANCO 1.5 D core transport code, to study the effect of impurity contamination from the SOL and the Helium ash in plasma performance. Finally, if possible, to study all this effects in the whole plasma using the COCONUT code that couples the edge transport code EDGE2D/EIRENE and the core transport code JETTO/SANCO.

Task	Association	Name	Type of support	Manpower (ppy)		Comments from ECOM
				proposed	accepted	
		Paula Belo	BS	0.25	0.25	
	IPP	Marco Wischmeier	BS	0.1	0.1	Integrated scenario modelling for ITER - SOL physics – SOLPS5.x
		Joerg Hobirk	BS	0.08	0.08	core modelling
		Emiliano Fable	BS	0.08	0.08	
	FOM Rijnhuizen	Dick Hogeweij	BS	0.3	0.3	Optimization of ITER start-up phase with respect to heating and current drive mixOptimization of ITER hybrid scenario with respect to heating and current drive mix (deliverable: Journal paper published by mid 2010)
		Jonathan Citrin	BS	0.5	0.5	
	FZJ	Derek Harting	BS	0.09	0.09	Density control in the SOL
	Swiss Confederation	Karim Besseghir	BS	0.15	0.15	Contribute to the development of improved set of ITER reference scenarios using DINA-CH and CRONOS, in particular for the strategic optimization of the ramp-up portion of all scenarios.The work will deliver methods for avoidance of high risks areas, respect of absolute constraints and optimization of a variety of terminal cost functions.The DINA-CH/CRONOS suite has already the possibility to save the results into the ITM datastructure.
	TEKES	Johnny Lonnroth	BS	0.1	0.1	MHD stability and performance in ITER scenarios modelling by JETTO and MISHKA-1 codes.
	VR	Pär Strand	BS	0.08	0.08	The Chalmers group will support the use of the TCI tools in ISM and will aim to expand to active participation in the modelling activities. The activity is shared between Strand and Nordman and availability/participation in WS and CC is somewhat decided by external factors (teaching and other related activites). Nordmans avaialbility is mainly towards the latter part of 2010.
		Hans Nordman	BS	0.12	0.12	
	ÖAW	Florian Koechl	BS	0.2	0.2	continuation of ISM activities (core and core+edge modelling)
	ENEA - Frascati	Fabio Subba	BS	0.04	0.04	Development of Integrated Scenario edge Modeling using edge plasma codes
		Roberto Zanino	BS	0.05	0.05	
WP10-ITM-IMP3-ACT3-T1: *Implementation and integration of edge codes*	CEA	Xavier Bonnin	PS	0.17	0.17	Continuation of the development and implementation of edge CPOs (29) (including core-edge coupling), continued development/implementation of edge codes.- Progress towards establishment of a wall CPO data structure- Participation in the implementation of the edge CPO data structures into SOLPS- Delivery of an ITM-compatible 2-D field-aligned quadrangular grid generator (CARRE_ITM) for use with SOLPS and other edge codes (work within Kepler and with CPO I/O)

Task	Association	Name	Type of support	Manpower (ppy)		Comments from ECOM
				proposed	accepted	
	Greece Cyprus	George Georghiou	PS	0.2	0.2	Implementation and integration of edge codes Topical Group/Item number: ITM-10-IMP3-ACT4Following the implementation of the collisional non-equilibrium plasma model in the context of electro-hydrodynamics, which describes charged particles (electrons-ions) and neutral transport properties coupled to the field and thermal equations [1, 2, 3], we intend to extend our model to handle edge plasma and scrap-off-layer modeling of a Tokamak. The existing model can describe the evolution of non-equilibrium plasma in a three dimensional setting, incorporating adaptive meshing and complex models to account for secondary processes such as photoionisation. The next step is to implement Branginskiis fluid equations coupled with neutral transport in order to characterize the plasma adjacent to material surfaces that comprise the divertor and first wall of magnetic fusion energy devices under normal operation conditions. Existing codes such as SOLPS and/or EDGE2D-NIMBUS are going to be extensively employed and in many cases extended to cope with the above phenomena.Analysis and in depth understanding of the physical problem, close collaboration with research teams working on this topic, understanding of the current limitations and further code development to deal with edge modeling that is related to turbulent transport will form the bulk of this work that addresses the implementation part of the call.A first level of understanding will be approached using simplified edge plasma models, (e.g. pure hydrogenic plasmas, neglecting drift and currents) where time dependent phenomena are included (Edge Localized Modes-ELMs). Then, the influence of impurities on the SOL plasma, in terms of production processes, radiation losses and transport, will be also examined as well as the effects of ExB drift, radial diamagnetic currents that contribute to the local current divergence and the anomalous turbulent transport.Further contribution in this call includes our participation in the integration part which refers to the adaptation of the edge codes in the Gateway. Support on the syntax of CPOs and on the functioning of core-edge coupling in Kepler in close collaboration with the people with expertise in edge codes is intended.Furthering our expertise in the above tasks lies within our priorities and our intention is to contribute actively within the edge plasma modeling framework.[1] Georghiou G E, Papadakis A P, Morrow R and Metaxas A C 2005, Numerical modeling of atmospheric pressure gas discharges leading to plasma production J. Phys. D: Appl. Phys. 38 R30328[2] A P Papadakis, G E Georghiou and A C Metaxas Simulation for the transition from non-thermal to thermal discharges, Plasma Sources Sci. Technol. 14 (2005) 250258[3] L Papageorghiou, E Panousis, J F Loiseau, N Spyrou and B Held, Two-dimensional modelling of a nitrogen dielectric barrier discharge (DBD) at atmospheric pressure: filament dynamics with the dielectric barrier on the cathode, J. Phys. D: Appl. Phys. 42 (2009)
		Lymperis Papageorgiou	PS	0.8	0.8	
	IPP	Hans-Joachim Klingshirn	PS	0.25	0.25	getting the grid storage structure up to speed and whatever is planned on getting the edge codes up and running within the UAL/Kepler framework
		David Coster	PS	0.08	0.08	Work on implementing SOLPS on gateway and coupling core-edge.

<table>
<tr><th rowspan="2">Task</th><th rowspan="2">Association</th><th rowspan="2">Name</th><th rowspan="2">Type of support</th><th colspan="2">Manpower (ppy)</th><th rowspan="2">Comments from ECOM</th></tr>
<tr><th>proposed</th><th>accepted</th></tr>
<tr><td></td><td>TEKES</td><td>Seppo Sipilä</td><td>PS</td><td>0.5</td><td>0.5</td><td>Implementation of CPO I/O in ASCOT
1. The Monte Carlo orbit-following code ASCOT has been installed on the Gateway. A wrapper code for reading input data to ASCOT from CPO's is under construction, and more than half of the input data required for an axisymmetric case (with 2D magnetic background and wall) have so far been read from available CPO data.
2. This work is a continuation of Tekes' 2009 task under ITM-09-IMP3-T7. In 2010, more code will be added for reading the remaining input quantities and inputs for more complicated cases. These include a 3D wall structure, 3D magnetic background, 2D (R,z) neutral n & T data for the main plasma, 2D (R,z) SOL charged particle & neutral n & T data and prescribed radial electric field profile (vs. rho_poloidal). The work will be done as these CPO's are defined and data becomes available.
3. As ASCOT can produce a wide variety of outputs (test particle orbit data, numerous distributions in velocity and configuration space, wall loads, neutral particle analyzer simulation data, etc.), it is foreseen that the capability to create the corresponding output in CPO form will be added as the need for them arises, once the required CPO's are defined and added to the data structure.</td></tr>
<tr><td></td><td></td><td>Markus Airila</td><td>PS</td><td>0.33</td><td>0.33</td><td>Implementation of CPO I/O in ERO
1. The 3D Monte Carlo plasma-wall interaction / impurity transport code ERO is running on Gateway. Various transformation routines exist for reading and interpolating 2D fluid code plasma parameters into ERO e.g. from SOLPS and EDGE2D output formats.
2. The ERO related work of Tekes 2009 task ITM-09-IMP3-T7 was postponed to 2010 due to the lack of required CPO definitions and is proposed to be implemented within the present activity.
3. A wrapper code based on the existing transformation routines will be written to handle the CPO I/O. ERO requires magnetic field, density, temperature and flow velocity data as input. As output, impurity densities and emission intensities can be provided in a 3D Cartesian grid over the simulation volume, and surface related quantities (e.g. net and gross erosion and deposition rates, composition changes) in a 2D Cartesian grid over the surface.
4. The activity will be carried out in collaboration with FZJ and start after the edge CPO definitions have been confirmed.</td></tr>
<tr><td></td><td rowspan="2">ENEA - Frascati</td><td>Fabio Subba</td><td>PS</td><td>0.08</td><td>0.08</td><td rowspan="2">Design of edge data structure, to complete the plasma edge CPO proposal. Collaboration with edge code responsible officers to implement the interaction with the edge CPOs. Additional focus will be given on the coupling of edge codes via the CPO datastructures.</td></tr>
<tr><td></td><td>Roberto Zanino</td><td>PS</td><td>0.17</td><td>0.17</td></tr>
<tr><td></td><td>ÖAW</td><td>David Tskhakaya</td><td>PS</td><td>0.5</td><td>0.5</td><td>Implementation and functioning of CPO'ified edge code (BIT1) on Gateway</td></tr>
<tr><td></td><td rowspan="2">FZJ</td><td>Dmitriy Borodin</td><td>PS</td><td>0.1</td><td>0.1</td><td rowspan="2">Implementation of the 3D-Monte-Carlo Impurity Transport Code ERO on the Gateway.Preparation of CPO Input/Output.</td></tr>
<tr><td></td><td>Andreas Kirschner</td><td>PS</td><td>0.1</td><td>0.1</td></tr>
</table>

Task	Association	Name	Type of support	Manpower (ppy)		Comments from ECOM
				proposed	accepted	
		Petra Börner	BS	0.17	0.17	1. Implementation of the 3D Monte-Carlo Transport Code EIRENE on the Gateway. Preparation of CPO Input/Output. 2. Maintenance of detailed MC neutral module. 3. Extension of edge code simulations to the real wall (continuation)
WP10-ITM-IMP3-ACT4-T1: *Verification and validation of edge codes*	ENEA - Frascati	Fabio Subba	BS	0.04	0.04	Contribution to the verification of the ITM edge codes and validation of related edge plasma models.
		Roberto Zanino	BS	0.05	0.05	
	IPP	David Coster	BS	0.08	0.08	Edge code V&V
		Marco Wischmeier	BS	0.3	0.3	Verification and validation of edge codes — particularly as applied to AUG.
	CEA	Xavier Bonnin	BS	0.33	0.33	1. V&V of new SOLPS6.0 version with dynamic grid adaptation 2. Code/code benchmarking activity between SOLPS4.x, SOLPS5.x and EDGE2D/EIRENE
		Pascale Monier-Garbet	BS	0.17	0.17	
		Jérome BUCALOSSI	BS	0.08	0.08	
	FZJ	Sven Wiesen	BS	0.09	0.09	Benchmarking of Edge Transport Codes (Continuation)
		Vladislav Kotov	BS	0.17	0.17	Benchmarking of Edge Transport Codes (Continuation)
	TEKES	Leena Aho-Mantila	BS	0.4	0.4	The fluid plasma / Monte Carlo neutrals code package SOLPS5.0 and the Monte Carlo impurity following code ERO are used to model 13C methane injection experiments carried out in the ITER-relevant vertical outer target of ASDEX Upgrade in 2007-2009. SOLPS solutions for the plasma background are validated against multiple measurements taken along the plasma midplane and outer divertor target, and drift effects are studied in forward and reversed Bt/Ip directions. ERO simulations are compared with the 13C deposition measured by nuclear reaction analysis and spectroscopy. Particular emphasis is given to improve the plasma background description (from SOLPS) in ERO, and comparisons between the 2D SOLPS background and the DIVIMP onion-skin model are foreseen for 2010. The work has been ongoing for 2 years and it is done in close collaboration with the IPP Garching edge plasma physics group (D. Coster), Forschungszentrum Juelich ERO modelling group (A. Kirschner) and the ASDEX Upgrade Team.
Total for WP10-ITM-IMP3		Manpower		BS (ppy)	PS (ppy)	
				9.26	3.79	

last update: 2013-06-18 by denka

7.7 Links to IMP3 private pages [553]

7.8 Links to IMP3 old pages (before 2008) [554]

7.9 Information about datastructures derived from practicalxml parsing

Data is derived from the schemas.

[553] https://www.efda-itm.eu/IMP3/html/index.html
[554] https://www.efda-itm.eu/ITM/imports/imp3/public/index.html

7.9.1 4.08a

7.9.1.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.1.1.1 Primitive Types

Clear definitions required.

7.9.1.1.2 float

7.9.1.1.3 integer

7.9.1.1.4 string

7.9.1.1.5 Array Types

Clear definitions required.

7.9.1.1.6 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.1.1.7 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.1.1.8 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.1.1.9 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2.

7.9.1.1.10 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.1.1.11 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.1.1.12 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.1.1.13 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.1.1.14 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.1.1.15 vecint_type

Example: [1,2,3]

7.9.1.1.16 vecstring_type

Example: ["aaa","bb","cccc"]

7.9.1.1.17 Structure Types

7.9.1.1.18 CPO Structures

7.9.1.1.19 amns

Atomic physics data CPO. Each occurrence contains the atomic data for a given element (nuclear charge)

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
version	string (7.9.1.1.4)	Version of the data.
source	string (7.9.1.1.4)	Source of the data.
zn	integer (7.9.1.1.3)	Nuclear charge [units of elementary charge];
zion	integer (7.9.1.1.3)	Ion charge [units of elementary charge]. If negative value, means it is a bundle of charge state which cannot be described as single value. Vector (nz)
amn	vecflt_type (7.9.1.1.14)	Mass of atom [amu]
state_label	vecstring_type (7.9.1.1.16)	label for charge state (e.g. D0, D1+, ...); Vector(nz)
result_label	vecstring_type (7.9.1.1.16)	description of each result; Vector(nprocs)
result_unit	vecstring_type (7.9.1.1.16)	units of result; Vector(nprocs)
result_trans	vecint_type (7.9.1.1.15)	0 : none; 1 : 10**; 2 : exp; Vector(nprocs)
bundled	integer (7.9.1.1.3)	0 : none.
proc_label	vecstring_type (7.9.1.1.16)	Label for process (e.g. EI, RC; could also include error estimates); Vector(nprocs)
tables	tables (7.9.1.1.274)	NO DOCS

7.9.1.1.20 antennas

RF antenna list. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
antenna_ec	antenna_ec (7.9.1.1.56)	Electron Cyclotron antennas
antenna_ic	antenna_ic (7.9.1.1.57)	Ion Cyclotron antennas
antenna_lh	antenna_lh (7.9.1.1.58)	Lower Hybrid antennas
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.21 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
delta_psi	vecflt_type (7.9.1.1.14)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.1.1.14)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.1.1.12)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.1.1.6)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.1.1.14)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.1.1.12)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.1.1.6)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.1.1.12)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.22 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into "bundles". Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.1.1.15)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.1.1.91)	Description of the impurities and their charge states
z	array3dflt_type (7.9.1.1.6)	Impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
zsq	array3dflt_type (7.9.1.1.6)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
nz	array3dflt_type (7.9.1.1.6)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source_term	sourceimp (7.9.1.1.253)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.1.1.69)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.1.1.86)	Transport coefficients for each charge state
flux	fluximp (7.9.1.1.134)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	array3dflt_type (7.9.1.1.6)	Integral of the time derivative term of the transport equation. Time-dependent. Array3D (nrho,nimp,max_nzimp)
atomic_data	vecstring_type (7.9.1.1.16)	Reference for the atomic data used for each impurity. Array of strings (nimp)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.1.1.72)	Code parameters

7.9.1.1.23 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition_neutrals (7.9.1.1.75)	Description of neutrals species
profiles	profiles_neutrals (7.9.1.1.181)	Profiles derived from the fields solved in the transport equations, or from experiment.
coefficients	coefficients_neutrals (7.9.1.1.73)	Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.24 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.

member	type	description
drho_dt	vecflt_type (7.9.1.1.14)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.1.1.276)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
psi	psi (7.9.1.1.183)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.1.1.77)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.1.1.78)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.1.1.77)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.1.1.78)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.1.1.78)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.1.1.178)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.1.1.139)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.25 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
toroid_field	b0r0 (7.9.1.1.62)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of j in this CPO.
j	vecflt_type (7.9.1.1.14)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.1.1.14)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.1.1.250)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_el (7.9.1.1.248)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz	source_imp (7.9.1.1.249)	Particle source for impurity density transport equation [m^-3.s^-1]. Time-dependent.
qi	source_ion (7.9.1.1.250)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_el (7.9.1.1.248)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz	source_imp (7.9.1.1.249)	Heat source for impurity heat transport equations [W.m^-3]. Time-dependent.
ui	source_ion (7.9.1.1.250)	Velocity source for toroidal velocity transport equation [kg.m^-1.s^-2]. Vector(nrho). Time-dependent.
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.26 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
sigma	vecflt_type (7.9.1.1.14)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.1.1.157)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.1.1.155)	Transport coefficients for electron density equation. Time-dependent.
nz_transp	transcoefimp (7.9.1.1.278)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.1.1.279)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.1.1.277)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp	transcoefimp (7.9.1.1.278)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.1.1.280)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.1.1.72)	Code parameters

member	type	description
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.27 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
setup	cxsetup (7.9.1.1.89)	diagnostic setup information
measure	cxmeasure (7.9.1.1.88)	Measured values
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.28 distribution

Distribution function for electron and ion species. Normally output from a Fokker-Planck calculation; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
calc_spec	vecint_type (7.9.1.1.15)	Pointer to the species for which the distribution function(s) is/are calculated and whose characteristics are given in composition (for ions). Value 0 means electrons. Vector of integers (ndist_spec)
nucl_reac	dist_nucl_reac (7.9.1.1.101)	Information on nuclear reactions involving the calculated species.
global_param	dist_glob (7.9.1.1.97)	Global parameters (in most cases volume integrated and surface averaged quanatities).
profiles_1d	dist_profiles (7.9.1.1.111)	Profiles (volume integrated and flux surface averaged)
dist_func	dist_func (7.9.1.1.96)	Distribution functions
input_src	dist_input_src (7.9.1.1.100)	Input sources of particles and power for the distribution species (to aid diagnosing the code output).
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.29 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
src_spec	vecint_type (7.9.1.1.15)	Pointer to the source species whose characteristics are given in composition. Vector(nsrc_spec)
global_param	distsource_global_param (7.9.1.1.117)	Global parameters (volume integrated).
profiles_1d	distsource_profiles_1d (7.9.1.1.118)	1D radial profiles
source_4d	source_4d (7.9.1.1.247)	Source of particles in phase space.
source_tp	source_tp (7.9.1.1.251)	Source given as a set of test particles. Note that the test particles are given at the source location and not at the gyrocentre. Note that max_n_particles should be the maximum both over species and time (since the number of test particles can change with time)
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; scalar

7.9.1.1.30 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
setup	ecesetup (7.9.1.1.121)	diagnostic setup information
measure	ecemeasure (7.9.1.1.120)	Measured values
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.31 edge

An example of CPO that uses a GRID complex element. For testing purposes only for the moment. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
grid	grid_full (7.9.1.1.141)	Grid definition
te	matflt_type (7.9.1.1.12)	Example of a value defined on the GRID nodes. Time-dependent. Matrix (nspace, max_nnode). NOT SURE OF THE DIMENSIONALITY.
ne	matflt_type (7.9.1.1.12)	Example of a value defined on the GRID cells Time-dependent. Matrix (nspace, ncell). THE NOTION OF CELLS HAS DISAPPEARED ? SHOULD WE PUT HERE VALUES FOR OBJECTS ?
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.1.1.72)	Code parameters

7.9.1.1.32 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
eqconstraint	eqconstraint (7.9.1.1.123)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.1.1.124)	Geometry of the plasma boundary
flush	flush (7.9.1.1.131)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.1.1.138)	0d output parameters
profiles_1d	profiles_1d (7.9.1.1.179)	output profiles as a function of the poloidal flux
profiles_2d	profiles_2d (7.9.1.1.180)	output profiles in the poloidal plane
coord_sys	coord_sys (7.9.1.1.76)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.1.1.72)	Code parameters

7.9.1.1.33 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
expression	string (7.9.1.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.1.1.245)	Geometric description of the lines of sight
measure	exp1D (7.9.1.1.128)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.34 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
desc_iron	desc_iron (7.9.1.1.92)	Description of the iron segments
magnetise	magnetise (7.9.1.1.151)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.35 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
name	vecstring_type (7.9.1.1.16)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.1.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.1.1.14)	Wave frequency [Hz], Vector (nantenna).

member	type	description
mode	vecint_type (7.9.1.1.15)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.1.1.215)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.1.1.256)	Spectral properties of the wave.
beam	rf_beam (7.9.1.1.209)	Beam characteristics
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.36 limiter

Description of the immobile limiting surface for defining the Last Closed Flux Surface. CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
position	rz1D (7.9.1.1.211)	Position (R,Z coordinates) of the limiter [m]; Vector(npoints)

7.9.1.1.37 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
ip	exp0D (7.9.1.1.127)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.1.1.127)	Diamagnetic flux [Wb]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.1.1.132)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.1.1.71)	Poloidal field probes
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.38 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
n	vecint_type (7.9.1.1.15)	Toroidal mode number; Time-dependent; Vector (nn)
m	matint_type (7.9.1.1.13)	Poloidal mode number; Time-dependent; Matrix (nn,nm)
psi	vecflt_type (7.9.1.1.14)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
frequency	vecflt_type (7.9.1.1.14)	Frequency of the mode [Hz]; Time-dependent; Vector (nn)
growthrate	vecflt_type (7.9.1.1.14)	Linear growthrate of the mode [Hz]; Time-dependent; Vector (nn)
disp_perp	array3dflt_type (7.9.1.1.6)	Perpendicular displacement of the mode [m]; Time-dependent; Array 3D (npsi,nn,nm)
disp_par	array3dflt_type (7.9.1.1.6)	Parallel displacement of the mode [m]; Time-dependent; Array 3D (npsi,nn,nm)
tau_alfven	vecflt_type (7.9.1.1.14)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_resistive	vecflt_type (7.9.1.1.14)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.1.1.72)	Code parameters

7.9.1.1.39 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
setup_mse	setup_mse (7.9.1.1.246)	diagnostic setup information
measure	exp1D (7.9.1.1.128)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.40 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
inj_spec	vecint_type (7.9.1.1.15)	Pointer to the to the injected species whose characteristics are given in composition. Vector(ninj_spec)
nunits_spec	vecint_type (7.9.1.1.15)	Number of units injecting a given species; Time-dependent; Vector(ninj_spec).
spec2unit	matint_type (7.9.1.1.13)	Pointer to units injecting a given species; Time-Dependent; Matrix(ninj_spec, max_nunits_spec)
unit2spec	vecint_type (7.9.1.1.15)	Pointer to a species in composition injected by a given unit; Time-dependent; Vector(nunits)
pow_unit	exp1D (7.9.1.1.128)	Power delivered by an NBI unit [W]; Time-dependent; Vector(nunits)
inj_eng_unit	exp1D (7.9.1.1.128)	Full injection energy of a unit [ev]; Time-dependent; Vector(nunits)
halfe_cfr	exp1D (7.9.1.1.128)	Beam current fraction (of total) for half energy component; Time-dependent; Vector(nunits)
thirde_cfr	exp1D (7.9.1.1.128)	Beam current fraction (of total) for the one third energy component. Time-dependent; Vector(nunits)
setup_inject	setup_inject (7.9.1.1.244)	Detailed information on an injection unit.
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.41 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
ni_neo	transcoefion (7.9.1.1.279)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.1.1.277)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo	transcoefimp (7.9.1.1.278)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.1.1.279)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.1.1.277)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo	transcoefimp (7.9.1.1.278)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.1.1.277)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.1.1.14)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.1.1.14)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.1.1.14)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.1.1.12)	Neoclassical poloidal rotation of for each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.1.1.6)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.1.1.14)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.1.1.72)	Code parameters

7.9.1.1.42 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
orbitt_id	orbitt_id (7.9.1.1.163)	Parameters identifying an orbit
orb_trace	orb_trace (7.9.1.1.161)	Position of particle in 5D space (3D in real and 2D in velocity).
orb_glob_dat	orb_glob_dat (7.9.1.1.160)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.43 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
pfcoils	pfcoils (7.9.1.1.167)	Active poloidal field coils
pfpassive	pfpassive (7.9.1.1.171)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.1.1.166)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.1.1.172)	PF power supplies
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.44 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
expression	string (7.9.1.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.1.1.245)	Geometric description of the lines of sight
measure	exp1D (7.9.1.1.128)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.45 reference

Set of generic reference signals (for input e.g. to a controller); Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
non_timed	ref_nt (7.9.1.1.188)	Time-independent references (parameters)
timed	ref_t (7.9.1.1.199)	Time-dependent references
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.46 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
crash_trig	integer (7.9.1.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.1.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.1.1.220)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.1.1.219)	NO DOCS
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.47 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
centre	scenario_centre (7.9.1.1.221)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.1.1.222)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.1.1.223)	Strings describing the tokamak configuration

member	type	description
confinement	scenario_confinement (7.9.1.1.224)	characteristic confinement times
currents	scenario_currents (7.9.1.1.225)	data related to current sources and current diffusion
edge	scenario_edge (7.9.1.1.226)	edge value (@ LCMS)
energy	scenario_energy (7.9.1.1.227)	plasma energy content
eqgeometry	eqgeometry (7.9.1.1.124)	Geometry of the plasma boundary
global_param	scenario_global (7.9.1.1.228)	Global scalar values
heat_power	scenario_heat_power (7.9.1.1.229)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.1.1.231)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.1.1.232)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.1.1.233)	line averaged value
neutron	scenario_neutron (7.9.1.1.234)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.1.1.235)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.1.1.236)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.1.1.239)	References
reactor	scenario_reactor (7.9.1.1.237)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.1.1.240)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.1.1.241)	volume averaged value
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.48 summary

Set of reduced data summarising the main simulation parameters for the data base catalogue. CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
ip	reduced (7.9.1.1.187)	Plasma current [A]
bvac_r	reduced (7.9.1.1.187)	Vacuum field times radius in the toroidal field magnet [T.m];
geom_axis_r	reduced (7.9.1.1.187)	Major radius of the geometric axis [m]
a_minor	reduced (7.9.1.1.187)	Minor radius of the plasma boundary [m]
elongation	reduced (7.9.1.1.187)	Elongation of the plasma boundary [m]
tria_lower	reduced (7.9.1.1.187)	Lower triangularity of the plasma boundary [m]
tria_upper	reduced (7.9.1.1.187)	Upper triangularity of the plasma boundary [m]
tev	reduced (7.9.1.1.187)	volume averaged electron temperature [eV]
tiv	reduced (7.9.1.1.187)	volume averaged ion temperature [eV]
nev	reduced (7.9.1.1.187)	volume averaged electron density [m^-3]
zeffv	reduced (7.9.1.1.187)	volume averaged effective charge
beta_pol	reduced (7.9.1.1.187)	poloidal beta
beta_tor	reduced (7.9.1.1.187)	toroidal beta
beta_normal	reduced (7.9.1.1.187)	normalised beta
li	reduced (7.9.1.1.187)	internal inductance
volume	reduced (7.9.1.1.187)	total plasma volume [m^3]
area	reduced (7.9.1.1.187)	area poloidal cross section [m^2]
main_ion1_z	reduced (7.9.1.1.187)	Atomic number of the main ion #1 [a.m.u.]
main_ion1_a	reduced (7.9.1.1.187)	Atomic mass of the main ion #1 [a.m.u.]
main_ion2_z	reduced (7.9.1.1.187)	Atomic number of the main ion #2 [a.m.u.]
main_ion2_a	reduced (7.9.1.1.187)	Atomic mass of the main ion #2 [a.m.u.]
impur1_z	reduced (7.9.1.1.187)	Atomic number of the impurity #1 [a.m.u.]
impur1_a	reduced (7.9.1.1.187)	Atomic mass of the impurity #1 [a.m.u.]
time	float (7.9.1.1.2)	Time at which the 0D variables of the summary are taken [s]. Scalar

7.9.1.1.49 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.1.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.1.1.4)	Pulse/Entry description
firstputdate	string (7.9.1.1.4)	Date of the original data submission
lastupdate	string (7.9.1.1.4)	Date of the last data addition in the tree
source	string (7.9.1.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.1.1.4)	Any additional comment
dataversion	string (7.9.1.1.4)	Version of the data structure
workflow	string (7.9.1.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.1.1.122)	Definition of this database entry
parent_entry	entry_def (7.9.1.1.122)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.1.1.152)	Information related to machine description for this entry

7.9.1.1.50 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
nturns	integer (7.9.1.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.1.1.3)	Number of packets of coils
current	exp0D (7.9.1.1.127)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.1.1.127)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.1.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.1.1.2)	Time [s]; Time-dependent. Scalar.

7.9.1.1.51 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
setup	tssetup (7.9.1.1.282)	diagnostic setup information
measure	tsmeasure (7.9.1.1.281)	Measured values
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.52 vessel

Mechanical structure of the vacuum vessel. CPO.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
position	rz1D (7.9.1.1.211)	Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints)

7.9.1.1.53 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
composition	composition (7.9.1.1.74)	Plasma composition (description of ion species).
global_param	waves_global_param (7.9.1.1.286)	Global wave deposition parameters
grid	waves_grid (7.9.1.1.287)	Grid points for 1D and 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.1.1.288)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.1.1.289)	2D profiles in poloidal cross-section

member	type	description
beamtracing	beamtracing (7.9.1.1.64)	Beam-tracing or ray-tracing solver
fullwave	fullwave (7.9.1.1.136)	Solution by full wave code
codeparam	codeparam (7.9.1.1.72)	Code parameters
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.54 Utility Structures

7.9.1.1.55 alter_coord

Alternative coordinate system possibly used to describe the space (e.g. rho_tor versus rho_tor_norm). NB : when specifying straight lines to build cells, these are intended to refer to the primary (main) system and may not be straight on the alternative system.

member	type	description
type_coord	vecint_type (7.9.1.1.15)	Type of coordinates describing the space. Vector of integers (ncoord)
node_value	matflt_type (7.9.1.1.12)	Numerical value of the node coordinates. Matrix (nnode,ncoord)

Type of: grid_space:alter_coord (1167)

7.9.1.1.56 antenna_ec

Electron Cyclotron antennas

member	type	description
name	vecstring_type (7.9.1.1.16)	Antenna name, Vector of strings (nantenna_ec)
frequency	vecflt_type (7.9.1.1.14)	Frequency [Hz], Vector (nantenna_ec)
power	exp1D (7.9.1.1.128)	Power [W], Vector (nantenna_ec). Time-dependent
mode	vecint_type (7.9.1.1.15)	Incoming wave mode (+ or -1 for O/X mode), Vector of integers (nantenna_ec). Time-dependent
position	rzphi1D (7.9.1.1.215)	Reference global position of the last mirror. Vectors (nantenna_ec). Time-dependent
launchangles	launchangles (7.9.1.1.146)	Launching angles of the beam
beam	rf_beam (7.9.1.1.209)	Beam characteristics

Type of: antennas:antenna_ec (1046)

7.9.1.1.57 antenna_ic

Ion Cyclotron antennas

member	type	description
name	vecstring_type (7.9.1.1.16)	Antenna name; Vector of strings (nantenna_ic)
frequency	exp1D (7.9.1.1.128)	Frequency [Hz]; Time-dependent; Vector (nantenna_ic)
power	exp1D (7.9.1.1.128)	Power [W]; Time-dependent; Vector (nantenna_ic)
setup	antennaic_setup (7.9.1.1.59)	Detailed description of IC antennas

Type of: antennas:antenna_ic (1046)

7.9.1.1.58 antenna_lh

Lower Hybrid antennas

member	type	description
name	vecstring_type (7.9.1.1.16)	Antenna name, Vector of strings (nantenna_lh)
frequency	vecflt_type (7.9.1.1.14)	Frequency [Hz], Vector (nantenna_lh)
power	exp1D (7.9.1.1.128)	Power [W], Vector (nantenna_lh). Time-dependent
position	rzphi1Dexp (7.9.1.1.216)	Reference global antenna position. Vectors (nantenna_lh). Time-dependent
setup	antennalh_setup (7.9.1.1.60)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.1.1.174)	Plasma edge characteristics in front of the antenna.
beam	rf_beam (7.9.1.1.209)	Beam characteristics

Type of: antennas:antenna_lh (1046)

7.9.1.1.59 antennaic_setup

Detailed description of ICRH antennas

member	type	description
straps	straps (7.9.1.1.262)	Properties of each IC antenna strap

Type of: antenna_ic:setup (1082)

7.9.1.1.60 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.1.1.154)	Modules description

Type of: antenna_lh:setup (1083)

7.9.1.1.61 atomlist

List of the atoms that enter the composition of the neutral species

member	type	description
amn	vecflt_type (7.9.1.1.14)	Atomic mass number; Vector (natm)
zn	vecflt_type (7.9.1.1.14)	Nuclear charge; Vector (natm)

Type of: composition_neutrals:atomlist (1100)

7.9.1.1.62 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.1.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.1.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: coresource:toroid_field (1051) I global_param:toroid_field (1163) I waves_global_param:toroid_field (1311)

7.9.1.1.63 beamlets

Detailed information on beamlets.

member	type	description
nbeamlets	vecint_type (7.9.1.1.15)	Number of beamlets of a unit; Vector(nunits)
position	rzphi2D (7.9.1.1.217)	Position of beamlets. Matrices(nunits, max_nbeamlets)
tang_rad_blt	matflt_type (7.9.1.1.12)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Matrix(nunits, max_nbeamlets)
angle_blt	matflt_type (7.9.1.1.12)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Matrix(nunits, max_nbeamlets)
pow_frc_blt	matflt_type (7.9.1.1.12)	Fraction of power of a unit injected by a beamlet; Matrix(nunits, max_nbeamlets)

Type of: setup_inject:beamlets (1269)

7.9.1.1.64 beamtracing

Beam-tracing or ray-tracing solver

member	type	description
nbeams	vecint_type (7.9.1.1.15)	Number of rays/beams for each antenna. Vector of integers (nfreq_beam)
npoints	matint_type (7.9.1.1.13)	Number of points along each ray/beam. Matrix of integers (nfreq_beam, max_nbeams)
power	matflt_type (7.9.1.1.12)	Initial power in each ray/beam [W], Matrix (nfreq_beam, max_nbeams). Time-dependent
dnpar	array3dflt_type (7.9.1.1.6)	Spectral width in refractive index associated with each ray/beam, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
length	array3dflt_type (7.9.1.1.6)	Ray/beam curvilinear length [m], Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
position	waves_rtposition (7.9.1.1.290)	Ray/beam position
wavevector	waves_rtwavevector (7.9.1.1.291)	Ray/beam wave vector.
polarization	polarization (7.9.1.1.176)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.1.1.177)	Power flow along the ray/beam.

Type of: waves:beamtracing (1079)

7.9.1.1.65 bezier

Components of the Bezier vectors associated to a node. I WONDER IF THIS IS GENERAL ENOUGH ... WHAT DO WE DO IF A DIFFERENT TYPE OF FINITE ELEMENT IS USED ?

member	type	description
u	matflt_type (7.9.1.1.12)	First Bezier vector components. Matrix(nnode,2)
v	matflt_type (7.9.1.1.12)	Second Bezier vector components. Matrix(nnode,2)
w	matflt_type (7.9.1.1.12)	Third Bezier vector components. Matrix(nnode,2)

Type of: properties:bezier (1207)

7.9.1.1.66 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.1.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.1.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.1.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: psi:boundary (1208)

7.9.1.1.67 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	array3dflt_type (7.9.1.1.6)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array3D(3,nneut,max_ntype)
type	matint_type (7.9.1.1.13)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nneut,max_ntype)
rho_tor	matint_type (7.9.1.1.13)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nneut,max_ntype).

Type of: corefieldneutral:boundary (1104) I corefieldneutrale:boundary (1105) I corefieldneutralv:boundary

(1106)

7.9.1.1.68 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.1.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.1.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.1.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (1102)

7.9.1.1.69 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	array3dflt_type (7.9.1.1.6)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 3D (3,nimp,max_nzimp)
source	vecstring_type (7.9.1.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nimp)
type	matint_type (7.9.1.1.13)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nimp,max_nzimp)
rho	matflt_type (7.9.1.1.12)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nimp,max_nzimp)
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: coreimpur:boundary (1048)

7.9.1.1.70 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.1.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.1.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.1.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.1.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (1103)

7.9.1.1.71 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.1.1.242)	diagnostic setup information
measure	exp1D (7.9.1.1.128)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (1063)

7.9.1.1.72 codeparam

Code parameters

member	type	description
codename	string (7.9.1.1.4)	Name of the code
codeversion	string (7.9.1.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.1.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.1.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.1.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: antennas:codeparam (1046) I boundary:codeparam (1091) I boundaryimp:codeparam (1094) I coredelta:codeparam (1047) I corefield:codeparam (1102) I corefieldion:codeparam (1103) I coreimpur:codeparam (1048) I coreneutrals:codeparam (1049) I coreprof:codeparam (1050) I coresource:codeparam (1051) I coretransp:codeparam (1052) I distribution:codeparam (1054) I distsource:codeparam (1055) I edge:codeparam (1057) I equilibrium:codeparam (1058) I flush:codeparam (1156) I launchs:codeparam (1061) I mhd:codeparam (1064) I nbi:codeparam (1066) I neoclassic:codeparam (1067) I orbit:codeparam (1068) I psi:codeparam (1208) I sawteeth:codeparam (1072) I scenario:codeparam (1073) I waves:codeparam (1079)

7.9.1.1.73 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+

member	type	description
recycling	recycling_neutrals (7.9.1.1.186)	Recycling coefficients
sputtering	sputtering_neutrals (7.9.1.1.258)	Sputtering coefficients

Type of: coreneutrals:coefficients (1049)

7.9.1.1.74 composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.1.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.1.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.1.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.1.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)

Type of: coredelta:composition (1047) I coreprof:composition (1050) I coresource:composition (1051) I coretransp:composition (1052) I distribution:composition (1054) I distsource:composition (1055) I nbi:composition (1066) I neoclassic:composition (1067) I sawteeth:composition (1072) I waves:composition (1079)

7.9.1.1.75 composition_neutrals

Description of neutrals species

member	type	description

member	type	description
atomlist	atomlist (7.9.1.1.61)	List of the atoms that enter the composition of the neutral species
neutrallist	neutrallist (7.9.1.1.156)	Definition of neutral species
typelist	typelist (7.9.1.1.284)	Definition of types for each neutral species

Type of: coreneutrals:composition (1049)

7.9.1.1.76 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.1.1.4)	Type of coordinate system
grid	reggrid (7.9.1.1.208)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.1.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.1.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.1.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.1.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.1.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.1.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.1.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.1.1.213)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (1058)

7.9.1.1.77 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.1.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.1.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.1.1.68)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.1.1.252)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.1.1.85)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.1.1.133)	Fluxes of the quantity, two definitions. Time-dependent.
time_deriv	vecflt_type (7.9.1.1.14)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: coreprof:ne (1050) I coreprof:te (1050)

7.9.1.1.78 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.1.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.1.1.15)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.1.1.70)	Boundary condition for the transport equation
source_term	sourceion (7.9.1.1.254)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.1.1.87)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.1.1.135)	Fluxes of the quantity, two definitions. Time-dependent.

member	type	description
time_deriv	matflt_type (7.9.1.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: coreprof:ni (1050) I coreprof:ti (1050) I coreprof:vtor (1050)

7.9.1.1.79 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	array3dflt_type (7.9.1.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.1.1.6)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.1.1.67)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:n0 (1206)

7.9.1.1.80 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	array3dflt_type (7.9.1.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.1.1.6)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.1.1.67)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:t0 (1206)

7.9.1.1.81 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	array3dflt_type (7.9.1.1.6)	Signal value; Array3D(nrho,nneut,max_ntype)Time-dependent;
boundary	boundary_neutrals (7.9.1.1.67)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (1107) I corefieldneutralv0:radial (1107) I corefieldneutralv0:toroidal (1107)

7.9.1.1.82 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.1.1.81)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.1.1.81)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.1.1.81)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: profiles_neutrals:v0 (1206)

7.9.1.1.83 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.1.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (1203) I profiles1d:dpsidt (1203) I profiles1d:dpsidt_phi (1203) I profiles1d:dvprimedt (1203) I profiles1d:e_b (1203) I profiles1d:eparallel (1203) I profiles1d:jni (1203) I profiles1d:joh (1203) I profiles1d:jtot (1203) I profiles1d:pe (1203) I profiles1d:pr_parallel (1203) I profiles1d:pr_perp (1203) I profiles1d:pr_th (1203) I profiles1d:q (1203) I profiles1d:qoh (1203) I profiles1d:shear (1203) I profiles1d:sigmapar (1203) I profiles1d:vloop (1203) I profiles1d:zeff (1203) I psi:sigma_par (1208)

7.9.1.1.84 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.1.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (1203) I profiles1d:ns (1203) I profiles1d:pi (1203) I profiles1d:wtor (1203)

7.9.1.1.85 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.1.1.14)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.1.1.14)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (1102)

7.9.1.1.86 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	array3dflt_type (7.9.1.1.6)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array3D(nrho,nimp,max_nzimp)
vconv	array3dflt_type (7.9.1.1.6)	Convection coefficient [m.s^-1]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:transp_coef (1048)

7.9.1.1.87 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.1.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.1.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (1103)

7.9.1.1.88 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.1.1.128)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.1.1.128)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.1.1.128)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (1053)

7.9.1.1.89 cxsetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.1.1.216)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (1053)

7.9.1.1.90 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.1.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.1.1.4)	Date at which the data has been put in the DB
source	string (7.9.1.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.1.1.4)	Any additional comment
isref	integer (7.9.1.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.1.1.292)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.1.1.184)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (1045) I antennas:datainfo (1046) I coredelta:datainfo (1047) I coreimpur:datainfo (1048) I coreneutrals:datainfo (1049) I coreprof:datainfo (1050) I coresource:datainfo (1051) I coretransp:datainfo (1052) I cxdiag:datainfo (1053) I distribution:datainfo (1054) I distsource:datainfo (1055) I ecediag:datainfo (1056) I edge:datainfo (1057) I equilibrium:datainfo (1058) I flush:datainfo (1156) I ironmodel:datainfo (1060) I launchs:datainfo (1061) I limiter:datainfo (1062) I lineintegraldiag:datainfo (1172) I magdiag:datainfo (1063) I mhd:datainfo (1064) I msediag:datainfo (1065) I nbi:datainfo (1066) I neoclassic:datainfo (1067) I orbit:datainfo (1068) I pfsystems:datainfo (1069) I reference:datainfo (1071) I sawteeth:datainfo (1072) I scenario:datainfo (1073) I summary:datainfo (1074) I toroidfield:datainfo (1076) I tsdiag:datainfo (1077) I vessel:datainfo (1078) I waves:datainfo (1079)

7.9.1.1.91 desc_impur

Description of the impurities and their charge states

member	type	description
amn	vecflt_type (7.9.1.1.14)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.1.1.15)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.1.1.15)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.1.1.15)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.1.1.13)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.1.1.13)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)

Type of: coreimpur:desc_impur (1048)

7.9.1.1.92 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of circuit. Array of strings (ncircuit).

member	type	description
id	vecstring_type (7.9.1.1.16)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.1.1.165)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.1.1.137)	Geometry of the iron segments

Type of: ironmodel:desc_iron (1060)

7.9.1.1.93 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.1.1.16)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.1.1.14)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.1.1.14)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
nelement	vecint_type (7.9.1.1.15)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.1.1.168)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (1192)

7.9.1.1.94 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.1.1.16)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.1.1.16)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.1.1.14)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.1.1.130)	Laplace proper filter
imin	vecflt_type (7.9.1.1.14)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.1.1.14)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.1.1.14)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.1.1.14)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.1.1.14)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.1.1.14)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (1197)

7.9.1.1.95 dist_ff

Orbit averaged (or Bounce averaged) zero order distribution function.

member	type	description
grid_type	vecint_type (7.9.1.1.15)	Type of grid. Vector (ndist_spec).
grid	dist_grid (7.9.1.1.99)	Grid on which the distribution function is calculated.
value	array4dflt_type (7.9.1.1.8)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; array 4d(ndist_spec, max_ndim1, max_ndim2, max_ndim3).

Type of: dist_func:f0 (1121) I dist_func:fullf (1121)

7.9.1.1.96 dist_func

Distribution functions

member	type	description
sol_type	vecint_type (7.9.1.1.15)	Solution type: 1 - full-f; 2 - delta-f. For the latter case delta-f is given by the test particles and the unperturbed distribution by the f0 branch; Vector(ndist_spec)
test_part	dist_test_part (7.9.1.1.115)	Distribution given as a set of test particles.
f0	dist_ff (7.9.1.1.95)	Orbit averaged (or Bounce averaged) zero order distribution function.

member	type	description
fullf	dist_ff (7.9.1.1.95)	Orbit averaged (or Bounce averaged) full-f distribution function.

Type of: distribution:dist_func (1054)

7.9.1.1.97 dist_glob

Global parameters (in most cases volume integrated and surface averaged quanatities).

member	type	description
enrg	vecflt_type (7.9.1.1.14)	Energy content of of a distribution species [J]; Time-dependent; Vector(ndist_spec)
enrg_para	vecflt_type (7.9.1.1.14)	Parallel energy content of of a distribution species [J] Time-dependent; Vector(ndist_spec)
pow_coll_i	matflt_type (7.9.1.1.12)	Collisional power to ions [W]; Time-dependent; Matrix(ndist_spec, nion)
pow_coll_e	vecflt_type (7.9.1.1.14)	Collisional power to the electrons [W]; Time-dependent; Vector(ndist_spec)
therm_src	dist_src_snk_tot (7.9.1.1.113)	Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_glob_dist_losses (7.9.1.1.98)	Losses of the distribution species (orbit losses and neutralisation losses).
cur_dr_tor	vecflt_type (7.9.1.1.14)	Toroidal current of non-thermal particles (excluding electron back current for fast ions) [A]; Time-dependent; Vector(ndist_spec).
trq_i	matflt_type (7.9.1.1.12)	Collisional torque to background ions [N.m]; Time dependent; Matrix (ndist_spec, nion)
trq_e	vecflt_type (7.9.1.1.14)	Collisional torque to electrons [N.m]; Time dependent; Vector(ndist_spec)
trq_j_rxb	vecflt_type (7.9.1.1.14)	Torque due to radial currents of non-thermal particles [N.m]; Time-dependent; Vector(ndist_spec).
nucl_reac_th	dist_nucl_reac_th (7.9.1.1.103)	Nuclear reactions between the calculated species and other species assumed to have thermal distributions.
nucl_reac_sf	dist_nucl_reac_sf (7.9.1.1.102)	Nuclear reactions of the calculated species with itself (thermal + non-thermal).

Type of: distribution:global_param (1054)

7.9.1.1.98 dist_glob_dist_losses

Losses of the distribution species (orbit losses and neutralisation losses).

member	type	description
orb_loss	dist_src_snk_tot (7.9.1.1.113)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_tot (7.9.1.1.113)	Losses due to neutralisation of distribution ions (charge exchange etc.)

Type of: dist_glob:losses (1122)

7.9.1.1.99 dist_grid

Grid on which the distribution function is calculated.

member	type	description
dim1	matflt_type (7.9.1.1.12)	First dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim1).
ndim1	vecint_type (7.9.1.1.15)	Size of the first dimension in phase space, for each species; Vector (ndist_spec).
dim2	matflt_type (7.9.1.1.12)	Second dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim2).
ndim2	vecint_type (7.9.1.1.15)	Size of the second dimension in phase space, for each species; Vector (ndist_spec).
dim3	matflt_type (7.9.1.1.12)	Third dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim3).
ndim3	vecint_type (7.9.1.1.15)	Size of the third dimension in phase space, for each species; Vector (ndist_spec).
jacobian	array4dflt_type (7.9.1.1.8)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array4d(ndist_spec, max_ndim1, max_ndim2, max_ndim3).

Type of: dist_ff:grid (1120)

7.9.1.1.100 dist_input_src

Input sources of particles and power for the distribution species (to aid diagnosing the code output).

member	type	description

member	type	description
particle_src	dist_particle_src (7.9.1.1.104)	Particle source
wave_src	dist_wave_src (7.9.1.1.116)	Auxiliary wave absorbed by the distribution species

Type of: distribution:input_src (1054)

7.9.1.1.101 dist_nucl_reac

Information on nuclear reactions involving the calculated species.

member	type	description
nreacs	vecint_type (7.9.1.1.15)	Number of possible nuclear reactions (with background species and for different branches); Vector(ndist_spec)
point_reac	matint_type (7.9.1.1.13)	Pointer to a species in composition who can undergo a nuclear reaction with the calculated species; Matrix(ndist_spec, max_nreac)
id_reac	matint_type (7.9.1.1.13)	Identification of the reaction between the calculated species and a background species (including which branch if applicable); Time-dependent; integer matrix(ndist_spec, max_nreac). Table defining the index of reactions to be provided.

Type of: distribution:nucl_reac (1054)

7.9.1.1.102 dist_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.1.1.14)	Reaction rate [1/s]; Time-dependent; Vector (ndist_spec)
power	vecflt_type (7.9.1.1.14)	Fusion reaction power[W]; Time-dependent; Vector (ndist_spec)

Type of: dist_glob:nucl_reac_sf (1122)

7.9.1.1.103 dist_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	matflt_type (7.9.1.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (ndist_spec, max_nreac)
power	matflt_type (7.9.1.1.12)	Fusion reaction power[W]; Time-dependent; Matrix(ndist_spec, max_nreac)

Type of: dist_glob:nucl_reac_th (1122)

7.9.1.1.104 dist_particle_src

Particle source

member	type	description
total	dist_src_snk_tot (7.9.1.1.113)	Total source of particles and power (NBI, fusion products, pellets etc.)
volume_intgr	dist_src_snk_vol (7.9.1.1.114)	Volume integrated source of particles and power (NBI, fusion products, pellets etc.)
flux_surf_av	dist_src_snk_surf (7.9.1.1.112)	Flux surface averaged source of particles and power (NBI, fusion products, pellets etc.)

Type of: dist_input_src:particle_src (1125)

7.9.1.1.105 dist_prof_surf_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_surf (7.9.1.1.112)	Losses due to orbits intersecting a material surface.

member	type	description
neutr_loss	dist_src_snk_surf (7.9.1.1.112)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:lossesd (1136)

7.9.1.1.106 dist_prof_surf_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	matflt_type (7.9.1.1.12)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (ndist_spec, max_npsi)
power	matflt_type (7.9.1.1.12)	Fusion reaction power [W.m^-3]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_profiles:nucl_rd_sf (1136)

7.9.1.1.107 dist_prof_surf_nucl_reac_th

Nuclear reactions between the cacluated species and oher species assumed to have thermal distributions.

member	type	description
rated	array3dflt_type (7.9.1.1.6)	Reaction rate [s^-1.m^-3]; Time dependent; Array3d(ndist_spec, nreac_max, max_npsi)
powerd	array3dflt_type (7.9.1.1.6)	Nuclear reaction power density [W.m^-3]; Time dependent; Array3d(ndist_spec, nreac_max, max_npsi)

Type of: dist_profiles:nucl_rd_th (1136)

7.9.1.1.108 dist_prof_vol_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_vol (7.9.1.1.114)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_vol (7.9.1.1.114)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:losses (1136)

7.9.1.1.109 dist_prof_vol_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	matflt_type (7.9.1.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (ndist_spec, max_npsi)
power	matflt_type (7.9.1.1.12)	Fusion reaction power[W]; Time-dependent; Matrxi (ndist_spec, max_npsi)

Type of: dist_profiles:nucl_reac_sf (1136)

7.9.1.1.110 dist_prof_vol_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	array3dflt_type (7.9.1.1.6)	Reaction rate [1/s]; Time-dependent; Array3D (ndist_spec, max_nreac, max_npsi)
power	array3dflt_type (7.9.1.1.6)	Fusion reaction power[W]; Time-dependent; Array3D(ndist_spec, max_nreac, max_npsi)

Type of: dist_profiles:nucl_reac_th (1136)

7.9.1.1.111 dist_profiles

Profiles (volume integrated and flux surface averaged)

member	type	description
npsi	vecint_type (7.9.1.1.15)	Number of points of the radial grid for each species. Vector(ndist_spec)
rho_tor_norm	matflt_type (7.9.1.1.12)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; matrix (ndist_spec, max_npsi)
rho_tor	matflt_type (7.9.1.1.12)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; matrix (ndist_spec, max_npsi)
psi	matflt_type (7.9.1.1.12)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; matrix (ndist_spec, max_npsi)
enrgd_tot	matflt_type (7.9.1.1.12)	Flux surface averaged energy density of a distribution species [J/m^3]; Time-dependent; Matrix(ndist_spec, max_npsi)
enrgd_para	matflt_type (7.9.1.1.12)	Flux surface averaged parallel energy density of a distribution species [J/m^3] Time-dependent; Matrix(ndist_spec, max_npsi).
powd_coll_i	array3dflt_type (7.9.1.1.6)	Flux surface averaged collisional power to ions [W.m^-3]; Time-dependent; Array3d(ndist_spec, nion, max_npsi)
powd_coll_e	matflt_type (7.9.1.1.12)	Flux surface averaged collisional power to the electrons [W.m^-3]; Time-dependent; Matrix(ndist_spec, max_npsi)
therm_srcd	dist_src_snk_surf (7.9.1.1.112)	Flux surface averaged source of particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
lossesd	dist_prof_surf_dist_losses (7.9.1.1.105)	Particle loss densities due to charge exchange events with neutrals or orbits intersecting material surfaces.
curd_fp	matflt_type (7.9.1.1.12)	Flux surface averaged toroidal current density of non-thermal (fast) particles of the distribution species (excluding electron back current for fast ions) [A.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi).
curd_dr	vecflt_type (7.9.1.1.14)	Total toroidal driven current density (including electron back current in the presence of fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi)
trqd_i	array3dflt_type (7.9.1.1.6)	Flux surface averaged collisional toroidal torque to background ions [N.m^-2]; Time dependent; Array3d (ndist_spec, nion, max_npsi)
trqd_e	matflt_type (7.9.1.1.12)	Flux surface averaged collisional toroidal torque density to electrons [N.m^-2]; Time dependent; Matrix(ndist_spec, max_npsi)
trqd_jrxb	matflt_type (7.9.1.1.12)	Toroidal torque density due to radial currents of non-thermal particles of the distribution species [N.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi)
nucl_rd_th	dist_prof_surf_nucl_reac_th (7.9.1.1.107)	Nuclear reaction rate densities for reactions between the cacluated species and other species assumed to have thermal distributions.
nucl_rd_sf	dist_prof_surf_nucl_reac_sf (7.9.1.1.106)	Nuclear reaction rate densities for reactions of the calculated species with itself (thermal + non-thermal).
enrg_tot	matflt_type (7.9.1.1.12)	Energy content of of a distribution species [J] inside a flux surface; Time-dependent; Matrix(ndist_spec, max_npsi)
enrg_para	matflt_type (7.9.1.1.12)	Parallel energy content of a distribution species [J] inside a flux surface; Time-dependent; Matrix(ndist_spec, max_npsi)
pow_coll_i	array3dflt_type (7.9.1.1.6)	Collisional power to ions inside a flux surface [W]; Time-dependent; Array3d(ndist_spec, nion, max_npsi)
pow_coll_e	matflt_type (7.9.1.1.12)	Collisional power to the electrons inside a flux surface [W]; Time-dependent; Matrix(ndist_spec, max_npsi)
therm_src	dist_src_snk_vol (7.9.1.1.114)	Source particles and power inside a flux surface due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_prof_vol_dist_losses (7.9.1.1.108)	Particle loss inside flux surface due to charge exchange events.
cur_fp	matflt_type (7.9.1.1.12)	Toroidal current of non-thermal (fast) particles driven inside a flux surface (does not include electron back current for fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi)
cur_dr	matflt_type (7.9.1.1.12)	Total toroidal current driven inside a flux surface (including electron back current in the presence of fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi).
trq_i	array3dflt_type (7.9.1.1.6)	Collisional toroidal torque to background ions inside a flux surface [N.m]; Time dependent; Array3d (ndist_spec, nion, max_npsi)
trq_e	matflt_type (7.9.1.1.12)	Collisional toroidal torque to electrons inside a flux surface [N.m]; Time dependent; Matrix(ndist_spec, max_npsi)
trq_j_rxb	matflt_type (7.9.1.1.12)	Toroidal torque due to radial currents of non-thermal particles of the distribution species [N.m]; Time-dependent; Matrix(ndist_spec, max_npsi)
nucl_reac_th	dist_prof_vol_nucl_reac_th (7.9.1.1.110)	Nuclear reactions inside a flux surface involving the distribution species and other species assumed to be thermal.
nucl_reac_sf	dist_prof_vol_nucl_reac_sf (7.9.1.1.109)	Nuclear reactions inside a flux surface of the calculated species with itself (thermal + non-thermal).

Type of: distribution:profiles_1d (1054)

7.9.1.1.112 dist_src_snk_surf

Losses due to orbits intersecting a material surface.

member	type	description
particlesd	matflt_type (7.9.1.1.12)	Source/sink particles [s^-1 m^-3]; Time-dependedent; Matrix(ndist_spec, max_npsi)
powerd	matflt_type (7.9.1.1.12)	Power density associated with the source/sink of particles [W.m^-3]; Time-dependent; Matrix(ndist_spec, max_npsi)
torqued	matflt_type (7.9.1.1.12)	Torque density due to the source/sink of particles [N.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi)

Type of: dist_particle_src:flux_surf_av (1129) I dist_prof_surf_dist_losses:neutr_loss (1130) I dist_prof_surf_dist_losses:orb_loss (1130) I dist_profiles:therm_srcd (1136)

7.9.1.1.113 dist_src_snk_tot

Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).

member	type	description
particles	vecflt_type (7.9.1.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector(ndist_spec)
power	vecflt_type (7.9.1.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector(ndist_spec)
torque	vecflt_type (7.9.1.1.14)	Torque due to the source/sink of particles [N.m]; Time-dependent; Vector (ndist_spec).

Type of: dist_glob:therm_src (1122) I dist_glob_dist_losses:neutr_loss (1123) I dist_glob_dist_losses:orb_loss (1123) I dist_particle_src:total (1129)

7.9.1.1.114 dist_src_snk_vol

Losses due to orbits intersecting a material surface.

member	type	description
particles	matflt_type (7.9.1.1.12)	Source/sink particles [1/s]; Time-dependedent; Matrix(ndist_spec, max_npsi)
power	matflt_type (7.9.1.1.12)	Power associated with the source/sink of particles [W]; Time-dependent; Matrix(ndist_spec, max_npsi)
torque	matflt_type (7.9.1.1.12)	Torque due to the source/sink of particles [N.m]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_particle_src:volume_intgr (1129) I dist_prof_vol_dist_losses:neutr_loss (1133) I dist_prof_vol_dist_losses:orb_loss (1133) I dist_profiles:therm_src (1136)

7.9.1.1.115 dist_test_part

Distribution given as a set of test particles.

member	type	description
nvar	vecflt_type (7.9.1.1.14)	Number of variables associated with a test particle; Vector (ndist_spec)
var_id	matint_type (7.9.1.1.13)	Identification of a variable; Matrix (ndist_spec, 5)
var1	matflt_type (7.9.1.1.12)	Phase space variables one characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var2	matflt_type (7.9.1.1.12)	Phase space variables two characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var3	matflt_type (7.9.1.1.12)	Phase space variables three characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var4	matflt_type (7.9.1.1.12)	Phase space variables four characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var5	matflt_type (7.9.1.1.12)	Phase space variables five characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var6	matflt_type (7.9.1.1.12)	Phase space variables six characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
weight	matflt_type (7.9.1.1.12)	Weight of a test particle; Time-dependent; Matrix (ndist_spec, ntpart)

Type of: dist_func:test_part (1121)

7.9.1.1.116 dist_wave_src

Auxiliary wave absorbed by the distribution species

member	type	description
type	vecstring_type (7.9.1.1.16)	Wave type (LH, EC, IC, ...), can be a combination of these if several wave types are absorbed by this species. Vector of strings (ndist_spec)
wave_power	vecflt_type (7.9.1.1.14)	Auxiliary wave power absorbed by the distribution species [W]; Time-dependent; Vector (ndist_spec).
wave_powerd	matflt_type (7.9.1.1.12)	Auxiliary flux surface averaged wave power density absorbed by the distribution species [W/m^3]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_input_src:wave_src (1125)

7.9.1.1.117 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	vecflt_type (7.9.1.1.14)	Total power source [W]; Time-dependent. Vector(nsrc_spec)
src_rate	vecflt_type (7.9.1.1.14)	Particle source rate [1/s]; Time-dependent; Vector(nsrc_spec)

Type of: distsource:global_param (1055)

7.9.1.1.118 distsource_profiles_1d

1D radial profiles

member	type	description
npsi	vecint_type (7.9.1.1.15)	Number of points of the radial grid for each species. Vector(nsrc_spec)
rho_tor_norm	matflt_type (7.9.1.1.12)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; matrix(nsrc_spec, max_npsi)
rho_tor	matflt_type (7.9.1.1.12)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; matrix(nsrc_spec, max_npsi)
psi	matflt_type (7.9.1.1.12)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; matrix(nsrc_spec, max_npsi)
pow_den	matflt_type (7.9.1.1.12)	Flux surface averaged power density [W/m^3]; Time-dependent; Matrix(nsrc_spec, max_npsi)
src_rate	matflt_type (7.9.1.1.12)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Matrix(nsrc_spec, max_npsi)

Type of: distsource:profiles_1d (1055)

7.9.1.1.119 distsource_rect_grid

Details of rectangular grids.

member	type	description
ndim1	vecint_type (7.9.1.1.15)	Number of grid points in the first dimension in phase space; vector (nsrc_spec)
ndim2	vecint_type (7.9.1.1.15)	Number of grid points in the second dimension in phase space; vector (nsrc_spec)
ndim3	vecint_type (7.9.1.1.15)	Number of grid points in the third dimension in phase space; vector (nsrc_spec)
ndim4	vecint_type (7.9.1.1.15)	Number of grid points in the fourth dimension in phase space; vector (nsrc_spec)
dim1	matflt_type (7.9.1.1.12)	Grid in the first dimension in phase space; Time-dependent; matrix(nsrc_spec, max_ndim1)
dim2	matflt_type (7.9.1.1.12)	Grid in the second dimension in phase space; Time-dependent; matrix(nsrc_spec, max_ndim2)
dim3	matflt_type (7.9.1.1.12)	Grid in the third dimension in phase space; Time-dependent; Matrix (nsrc_spec, max_ndim3)
dim4	matflt_type (7.9.1.1.12)	Grid in the fourth dimension in phase space; Time-dependent; Matrix (nsrc_spec, max_ndim4)
jacobian	array5dflt_type (7.9.1.1.9)	Jacobian of the transformation of the phase space grid variables; Time-dependent; array5d (nsrc_spec, max_ndim1, max_ndim2, max_ndim3, max_ndim4)

Type of: source_4d:rect_grid (1272)

7.9.1.1.120 ecemeasure

Measured values

member	type	description
te	exp1D (7.9.1.1.128)	Electron temperature [eV]. Vector (nchannels)

Type of: ecediag:measure (1056)

7.9.1.1.121 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.1.1.14)	Frequency of the ECE channels. Vector (nchannels)
position	rzphi1Dexp (7.9.1.1.216)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: ecediag:setup (1056)

7.9.1.1.122 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.1.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.1.1.4)	Name of the device
shot	integer (7.9.1.1.3)	Shot number
run	integer (7.9.1.1.3)	Run number

Type of: mdinfo:md_entry (1177)

7.9.1.1.123 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.1.1.126)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.1.1.125)	Vacuum field times radius in the toroidal field magnet [T.m];
faraday	eqmes1D (7.9.1.1.126)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.1.1.126)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.1.1.125)	Plasma current [A];
isoflux	isoflux (7.9.1.1.144)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.1.1.126)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.1.1.150)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.1.1.126)	MSE angles [rad]
ne	eqmes1D (7.9.1.1.126)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.1.1.126)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.1.1.126)	Total pressure [Pa]
q	q (7.9.1.1.185)	Safety factor
xpts	xpts (7.9.1.1.293)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (1058)

7.9.1.1.124 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.1.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.1.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary	rz1D_npoints (7.9.1.1.212)	RZ description of the plasma boundary; Time-dependent;
geom_axis	rz0D (7.9.1.1.210)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.1.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.1.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.1.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.1.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar

member	type	description
xpts	rz1D (7.9.1.1.211)	Position of the Xpoints, first is the active xpoint if diverted [m]; Time-dependent; Vector (npoint)
left_low_st	rz0D (7.9.1.1.210)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.1.1.210)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.1.1.210)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.1.1.210)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.1.1.210)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (1058) I scenario:eqgeometry (1073)

7.9.1.1.125 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.1.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.1.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.1.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.1.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.1.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.1.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.1.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.1.1.2)	chiˆ2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (1148) I eqconstraint:i_plasma (1148)

7.9.1.1.126 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.1.1.14)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.1.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.1.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.1.1.15)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.1.1.14)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.1.1.14)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.1.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.1.1.14)	chiˆ2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (1148) I eqconstraint:faraday (1148) I eqconstraint:flux (1148) I eqconstraint:jsurf (1148) I eqconstraint:mse (1148) I eqconstraint:ne (1148) I eqconstraint:pfcurrent (1148) I eqconstraint:pressure (1148) I magnet_iron:mr (1175) I magnet_iron:mz (1175)

7.9.1.1.127 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.1.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.1.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.1.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: magdiag:diamagflux (1063) I magdiag:ip (1063) I toroidfield:bvac_r (1076) I toroidfield:current (1076)

7.9.1.1.128 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.1.1.14)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.1.1.14)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.1.1.14)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: antenna_ec:power (1081) I antenna_ic:frequency (1082) I antenna_ic:power (1082) I antenna_lh:power (1083) I bpol_probes:measure (1096) I cxmeasure:ti (1113) I cxmeasure:vpol (1113) I cxmeasure:vtor (1113) I ecemeasure:te (1145) I flux_loops:measure (1157) I lineintegraldiag:measure (1172) I magnetise:mr (1176) I magnetise:mz (1176) I msediag:measure (1065) I nbi:halfe_cfr (1066) I nbi:inj_eng_unit (1066) I nbi:pow_unit (1066) I nbi:thirde_cfr (1066) I pfcoils:coilcurrent (1192) I pfcoils:coilvoltage (1192) I pfsupplies:current (1197) I pfsupplies:voltage (1197) I rzphi1Dexp:phi (1241) I rzphi1Dexp:r (1241) I rzphi1Dexp:z (1241) I tsmeasure:ne (1306) I tsmeasure:te (1306)

7.9.1.1.129 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.1.1.12)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.1.1.12)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.1.1.12)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: straps:phase (1287)

7.9.1.1.130 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.1.1.12)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.1.1.12)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (1119)

7.9.1.1.131 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
position	rz1D (7.9.1.1.211)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.1.1.12)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: equilibrium:flush (1058)

7.9.1.1.132 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.1.1.243)	diagnostic setup information

member	type	description
measure	exp1D (7.9.1.1.128)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (1063)

7.9.1.1.133 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.1.1.14)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.1.1.14)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (1102)

7.9.1.1.134 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	array3dflt_type (7.9.1.1.6)	Flux of the field calculated from the transport coefficients. Time-dependent; Array3D (nrho,nion,max_nzimp)
flux_interp	array3dflt_type (7.9.1.1.6)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array3D (nrho,nion,max_nzimp)

Type of: coreimpur:flux (1048)

7.9.1.1.135 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.1.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.1.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (1103)

7.9.1.1.136 fullwave

Solution by full wave code

member	type	description
pol_decomp	pol_decomp (7.9.1.1.175)	Poloidal decomposition of the wave fields
local	local (7.9.1.1.148)	Local description of the wave fields

Type of: waves:fullwave (1079)

7.9.1.1.137 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.1.1.15)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.1.1.213)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (1117)

7.9.1.1.138 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.1.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.1.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.1.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.1.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.1.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.1.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.1.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.1.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.1.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.1.1.149)	Magnetic axis values
q_95	float (7.9.1.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.1.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.1.1.62)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.1.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles). Time-dependent; Scalar

Type of: equilibrium:global_param (1058)

7.9.1.1.139 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.1.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.1.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
vloop	float (7.9.1.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.1.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.1.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.1.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.1.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.1.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (1050)

7.9.1.1.140 grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.1.1.14)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.1.1.14)	Second dimension values; Time-dependent; Vector (ndim2)
connect	matint_type (7.9.1.1.13)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: profiles_2d:grid (1205)

7.9.1.1.141 grid_full

Generic definition of a complex grid

member	type	description

member	type	description
spaces	grid_spaces (7.9.1.1.143)	Definition of the grid spaces.
metric	vecflt_type (7.9.1.1.14)	Grid metric. INSERT HERE CLARIFIED DEFINITION Vector. DIMENSIONALITY ?

Type of: edge:grid (1057)

7.9.1.1.142 grid_space

Description of a space in the grid

member	type	description
type_coord	vecint_type (7.9.1.1.15)	Type of coordinates describing the space. Vector of integers (ncoord)
node_value	matflt_type (7.9.1.1.12)	Numerical value of the node coordinates. Matrix (nnode,ncoord)
alter_coord	alter_coord (7.9.1.1.55)	Alternative coordinate system possibly used to describe the space (e.g. rho_tor versus rho_tor_norm). NB : when specifying straight lines to build cells, these are intended to refer to the primary (main) system and may not be straight on the alternative system.
nobject	vecint_type (7.9.1.1.15)	Number of object defined in the space, for each dimension. Vector of integers (ncoord)
nobject_bou	vecint_type (7.9.1.1.15)	Maximum number of boundaries ("faces") of an object, for each dimension. Vector of integers (ncoord)
neighborside	integer (7.9.1.1.3)	Number of neighbors lying on a "face" of a given space object. Integer.
neighbors	matint_type (7.9.1.1.13)	Neighbors of a given object, specified only for the highest dimensionality. Unused slots of the matrix should be set as UNDEFINED. Matrix of integers (nobject(end),nobject_bou(end))
OBJDEF	vecint_type (7.9.1.1.15)	Definition and dimensionality to be provided
properties	properties (7.9.1.1.182)	Space properties

Type of: grid_spaces:space_1 (1168) I grid_spaces:space_2 (1168) I grid_spaces:space_3 (1168) I grid_spaces:space_4 (1168) I grid_spaces:space_5 (1168)

7.9.1.1.143 grid_spaces

Definition of the grid spaces.

member	type	description
nspace	integer (7.9.1.1.3)	Number of spaces used. Integer.
space_1	grid_space (7.9.1.1.142)	Description of space #1
space_2	grid_space (7.9.1.1.142)	Description of space #2
space_3	grid_space (7.9.1.1.142)	Description of space #3
space_4	grid_space (7.9.1.1.142)	Description of space #4
space_5	grid_space (7.9.1.1.142)	Description of space #5

Type of: grid_full:spaces (1166)

7.9.1.1.144 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.1.1.211)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.1.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.1.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.1.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.1.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.1.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (1148)

7.9.1.1.145 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.1.1.14)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (1208)

7.9.1.1.146 launchangles

Launching angles of the beam

member	type	description
alpha	vecflt_type (7.9.1.1.14)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad], Vector (nantenna_ec). Time-dependent
beta	vecflt_type (7.9.1.1.14)	Toroidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad], Vector (nantenna_ec). Time-dependent

Type of: antenna_ec:launchangles (1081)

7.9.1.1.147 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.1.1.90)	Generic information on a data item
expression	string (7.9.1.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.1.1.245)	Geometric description of the lines of sight
measure	exp1D (7.9.1.1.128)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.1.1.2)	Time [s]; Time-dependent; Scalar

7.9.1.1.148 local

Local description of the wave fields

member	type	description
e_plus	array4dflt_type (7.9.1.1.8)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_plus_ph	array4dflt_type (7.9.1.1.8)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_minus	array4dflt_type (7.9.1.1.8)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_minus_ph	array4dflt_type (7.9.1.1.8)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_norm	array4dflt_type (7.9.1.1.8)	Magnitude of wave electric field normal to a flux surface [V/m]; Time dependent; 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
enorm_ph	array4dflt_type (7.9.1.1.8)	Phase of wave electric field normal to a flux surface [rad]; Time dependent; 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_binorm	array4dflt_type (7.9.1.1.8)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time dependent; 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_binorm_ph	array4dflt_type (7.9.1.1.8)	Phase of wave electric field tangent to a flux surface [rad]; Time dependent; 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_para	array4dflt_type (7.9.1.1.8)	Magnitude of parallel wave electric field [V/m]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
e_para_ph	array4dflt_type (7.9.1.1.8)	Phase of parallel wave electric field [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
b_norm	array4dflt_type (7.9.1.1.8)	Magnitude of wave magnetic field normal to a flux surface [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
b_norm_ph	array4dflt_type (7.9.1.1.8)	Phase of wave magnetic field normal to a flux surface [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
b_binorm	array4dflt_type (7.9.1.1.8)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
b_binorm_ph	array4dflt_type (7.9.1.1.8)	Phase of wave magnetic field tangent to a flux surface [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)
b_para	array4dflt_type (7.9.1.1.8)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)

member	type	description
b_para_ph	array4dflt_type (7.9.1.1.8)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_ntheta)

Type of: fullwave:local (1161)

7.9.1.1.149 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.1.1.210)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.1.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.1.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (1163)

7.9.1.1.150 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.1.1.126)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.1.1.126)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (1148)

7.9.1.1.151 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.1.1.128)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.1.1.128)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (1060)

7.9.1.1.152 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.1.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.1.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.1.1.122)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.1.1.153 midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.1.1.162)	Position at outer mid-plane
inner	orbit_pos (7.9.1.1.162)	Position at inner mid-plane

Type of: special_pos:midplane (1280)

7.9.1.1.154 modules

Modules description

member	type	description
nma_theta	vecint_type (7.9.1.1.15)	Number of modules per antenna in the poloidal direction. Vector of integers (nantenna_lh).
nma_phi	vecint_type (7.9.1.1.15)	Number of modules per antenna in the toroidal direction. Vector of integers (nantenna_lh).
sm_theta	vecflt_type (7.9.1.1.14)	Spacing between poloidally neighboring modules [m], Vector (nantenna_lh)
amplitude	array3dflt_type (7.9.1.1.6)	Amplitude of the TE10 mode injected in the module [W], Array 3D (nantenna_lh,max_nma_phi,max_nma_theta). Time-dependent
phase	array3dflt_type (7.9.1.1.6)	Phase of the TE10 mode injected in the module [rd], Array 3D (nantenna_lh, max_nma_phi, max_nma_theta). Time-dependent
waveguides	waveguides (7.9.1.1.285)	Waveguides description

Type of: antennalh_setup:modules (1085)

7.9.1.1.155 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.1.1.12)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.1.1.12)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.1.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.1.1.158)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ne_transp (1052)

7.9.1.1.156 neutrallist

Definition of neutral species

member	type	description
ncomp	vecint_type (7.9.1.1.15)	For each neutral species, number of distinct atoms that enter the composition of this species (1 if the neutral is an atom, more for a molecule : 2 for CH4). Vector of integers (nneut)
tatm	matint_type (7.9.1.1.13)	For each neutral species, and each of its atomic component, index of the atom (referring to the atomlist). Matrix of integers (nneut,max_ncomp)
multatm	matint_type (7.9.1.1.13)	For each neutral species, and each of its atomic component, number of such atoms. Matrix of integers (nneut,max_ncomp)

Type of: composition_neutrals:neutrallist (1100)

7.9.1.1.157 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.1.1.6)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.1.1.6)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)

member	type	description
flux	matflt_type (7.9.1.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.1.1.159)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ni_transp (1052)

7.9.1.1.158 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.1.1.14)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.1.1.14)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.1.1.14)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.1.1.14)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (1180) I transcoefel:off_diagonal (1302)

7.9.1.1.159 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.1.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.1.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.1.1.12)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (1182) I transcoefion:off_diagonal (1304) I transcoefvtor:off_diagonal (1305)

7.9.1.1.160 orb_glob_dat

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.1.1.15)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.1.1.14)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.1.1.14)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.1.1.14)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	special_pos (7.9.1.1.255)	Special positions along an orbit (like turning points).

Type of: orbit:orb_glob_dat (1068)

7.9.1.1.161 orb_trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.1.1.12)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.1.1.15)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.1.1.12)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.1.1.12)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.1.1.12)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.1.1.12)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.1.1.12)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.1.1.12)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:orb_trace (1068)

7.9.1.1.162 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.1.1.14)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.1.1.14)	Altitude [m]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.1.1.14)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.1.1.14)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: midplane:inner (1178) I midplane:outer (1178) I turning_pts:lower (1308) I turning_pts:upper (1308)

7.9.1.1.163 orbitt_id

Parameters identifying an orbit

member	type	description
amn	float (7.9.1.1.2)	Atomic mass of the ion; Scalar
zion	float (7.9.1.1.2)	Atomic charge of the ion; Scalar
energy	vecflt_type (7.9.1.1.14)	Energy of the ion [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.1.1.14)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.1.1.14)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.1.1.15)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:orbitt_id (1068)

7.9.1.1.164 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.1.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.1.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.1.1.4)	Code parameters schema.

Type of

7.9.1.1.165 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.1.1.12)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.1.1.12)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (1117)

7.9.1.1.166 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.1.1.16)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.1.1.16)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.1.1.15)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.1.1.7)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (1069)

7.9.1.1.167 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.1.1.93)	Description of the coils
coilcurrent	exp1D (7.9.1.1.128)	Circuit feed current in the coil , defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.1.1.128)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)

Type of: pfsystems:pfcoils (1069)

7.9.1.1.168 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.1.1.16)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.1.1.12)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.1.1.12)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.1.1.169)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (1118)

7.9.1.1.169 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.1.1.13)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.1.1.13)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.1.1.214)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)

member	type	description
rzdrdz	array3dflt_type (7.9.1.1.6)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (1193)

7.9.1.1.170 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.1.1.15)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.1.1.15)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.1.1.213)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.1.1.12)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (1196)

7.9.1.1.171 pfpassive

Passive axisymmetric conductor description

member	type	description
area	vecflt_type (7.9.1.1.14)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.1.1.14)	Passive element resistance [Ohm]; Vector (nelements)
pfpageometry	pfpageometry (7.9.1.1.170)	Geometry of the passive elements

Type of: pfsystems:pfpassive (1069)

7.9.1.1.172 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.1.1.94)	Description of the power supplies
voltage	exp1D (7.9.1.1.128)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.1.1.128)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (1069)

7.9.1.1.173 phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.1.1.12)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.1.1.14)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: rf_beam:phaseellipse (1234)

7.9.1.1.174 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	vecint_type (7.9.1.1.15)	Number of points in the distance grid. Vector of integers (nantenna_lh).
distance	matflt_type (7.9.1.1.12)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Matrix (nantenna_lh,max_npoints). Time-dependent.

member	type	description
density	matflt_type (7.9.1.1.12)	Electron density in front of the antenna [m^-3]. Matrix (nantenna_lh,max_npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (1083)

7.9.1.1.175 pol_decomp

Poloidal decomposition of the wave fields

member	type	description
nmpol	vecint_type (7.9.1.1.15)	Number of poloidal mode numbers for each frequency; Vector (nfreq_fw)
mpol	matint_type (7.9.1.1.13)	Poloidal mode numbers; Matrix (nfreq_fw, max_nmpol)
e_plus	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_plus_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_minus	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_minus_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_norm	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_norm_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_binorm	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_binorm_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_para	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
e_para_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_norm	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_norm_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_binorm	array4dflt_type (7.9.1.1.8)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_binorm_ph	array4dflt_type (7.9.1.1.8)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_para	array4dflt_type (7.9.1.1.8)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)
b_para_ph	array4dflt_type (7.9.1.1.8)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 4D (nfreq_fw, max_ntor, max_npsi, max_nmpol)

Type of: fullwave:pol_decomp (1161)

7.9.1.1.176 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p	array3dflt_type (7.9.1.1.6)	Electric field polarization vector in the p rotating coordinates, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
epol_m	array3dflt_type (7.9.1.1.6)	Electric field polarization vector in the m rotating coordinates, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
epol_par	array3dflt_type (7.9.1.1.6)	Electric field polarization vector in the magnetic field direction, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent

Type of: beamtracing:polarization (1089)

7.9.1.1.177 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	array3dflt_type (7.9.1.1.6)	Normalized power flow in the direction perpendicular to the magnetic field; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
phi_par	array3dflt_type (7.9.1.1.6)	Normalized power flow in the direction parallel to the magnetic field; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
power_e	array3dflt_type (7.9.1.1.6)	Power absorbed along the beam by electrons [W]; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
power_i	array4dflt_type (7.9.1.1.8)	Power absorbed along the beam by an ion species [W]; Array (4D) of double precision real (nfreq_beam, max_nbeams, max_npoints, nion). Time-dependent

Type of: beamtracing:powerflow (1089)

7.9.1.1.178 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.1.1.83)	Electron pressure [Pa]; Time-dependent;
pi	coreprofion (7.9.1.1.84)	Ion pressure [Pa]; Time-dependent;
pr_th	coreprofile (7.9.1.1.83)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.1.1.83)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.1.1.83)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.1.1.83)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.1.1.83)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
joh	coreprofile (7.9.1.1.83)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.1.1.83)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.1.1.83)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	coreprofile (7.9.1.1.83)	ohmic heating [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.1.1.83)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.1.1.83)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.1.1.83)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.1.1.83)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.1.1.84)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.1.1.84)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.1.1.84)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.1.1.83)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.1.1.83)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dpsidt	coreprofile (7.9.1.1.83)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
dpsidt_phi	coreprofile (7.9.1.1.83)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
dvprimedt	coreprofile (7.9.1.1.83)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (1050)

7.9.1.1.179 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.1.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.1.1.14)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.1.1.14)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.1.1.14)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.1.1.14)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.1.1.14)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.1.1.14)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.1.1.14)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)

member	type	description
q	vecflt_type (7.9.1.1.14)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.1.1.14)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.1.1.14)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.1.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.1.1.14)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.1.1.14)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.1.1.14)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.1.1.14)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.1.1.14)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.1.1.14)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.1.1.14)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.1.1.14)	Radial derivative of the volume enclosed in the flux surface, i.e. dV/drho_tor [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.1.1.14)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.1.1.14)	Radial derivative of the cross-sectional area of the flux surface, i.e. darea/drho_tor [m^2]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.1.1.14)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.1.1.14)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.1.1.14)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.1.1.14)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.1.1.14)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.1.1.14)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.1.1.14)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.1.1.14)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.1.1.14)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.1.1.14)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.1.1.14)	average(1/R); Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (1058)

7.9.1.1.180 profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	string (7.9.1.1.4)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	grid (7.9.1.1.140)	definition of the 2D grid
psi_grid	matflt_type (7.9.1.1.12)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
jphi_grid	matflt_type (7.9.1.1.12)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar_grid	matflt_type (7.9.1.1.12)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.1.1.12)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.1.1.12)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.1.1.12)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.1.1.213)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (1058)

7.9.1.1.181 profiles_neutrals

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
n0	corefieldneutral (7.9.1.1.79)	Neutral density [m^-3]. Time-dependent;

member	type	description
t0	corefieldneutrale (7.9.1.1.80)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.1.1.82)	Neutral velocity
prad0	matflt_type (7.9.1.1.12)	Power radiated by neutrals [W.m^-3]. Matrix (nrho,nneut). Time-dependent.

Type of: coreneutrals:profiles (1049)

7.9.1.1.182 properties

Space properties

member	type	description
alias	vecint_type (7.9.1.1.15)	Describes the links among grid nodes, primarily in case of periodic grids. If nodes i and j are two instances of the same node, located at the boundaries of a periodic domain, it is intended that ALIAS(I) = J and ALIAS(J) = I. Vector of integers (nnode).
type	vecint_type (7.9.1.1.15)	General purpose signal allowing the user grouping the space nodes according to his/her needs. Vector of integers (nnode).
is_x	vecint_type (7.9.1.1.15)	Location of X points. Vector of integers (nnode).
node_connect	string (7.9.1.1.4)	Lconnection type between two nodes. If its value is STRAIGHT, then two nodes are connected with a straight line (where "straight" is to be intended in the coordinates specified for that space). If the value is BEZIER, then two nodes are connected with BEZIER curves. String
bezier	bezier (7.9.1.1.65)	Components of the Bezier vectors associated to a node. I WONDER IF THIS IS GENERAL ENOUGH ... WHAT DO WE DO IF A DIFFERENT TYPE OF FINITE ELEMENT IS USED ?

Type of: grid_space:properties (1167)

7.9.1.1.183 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.1.1.14)	Signal value [Wb]; Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.1.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.1.1.66)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.1.1.145)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.1.1.83)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.1.1.72)	Code parameters

Type of: coreprof:psi (1050)

7.9.1.1.184 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.1.1.4)	Storage method for this data
putaccess	string (7.9.1.1.4)	Instructions to access the data using this method
putlocation	string (7.9.1.1.4)	Name of this data under this method
rights	string (7.9.1.1.4)	Access rights to this data

Type of: datainfo:putinfo (1115)

7.9.1.1.185 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.1.1.14)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.1.1.211)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.1.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.1.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.1.1.14)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.1.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.1.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.1.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (1148)

7.9.1.1.186 recycling_neutrals

Recycling coefficients

member	type	description
particles	matflt_type (7.9.1.1.12)	Particle recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.
energy	matflt_type (7.9.1.1.12)	Energy recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:recycling (1098)

7.9.1.1.187 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.1.1.2)	Data value; Real
source	string (7.9.1.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.1.1.2)	Time (exact time slice used from the time array of the source signal); Real

Type of: summary:a_minor (1074) I summary:area (1074) I summary:beta_normal (1074) I summary:beta_pol (1074) I summary:beta_tor (1074) I summary:bvac_r (1074) I summary:elongation (1074) I summary:geom_axis_r (1074) I summary:impur1_a (1074) I summary:impur1_z (1074) I summary:ip (1074) I summary:li (1074) I summary:main_ion1_a (1074) I summary:main_ion1_z (1074) I summary:main_ion2_a (1074) I summary:main_ion2_z (1074) I summary:nev (1074) I summary:tev (1074) I summary:tiv (1074) I summary:tria_lower (1074) I summary:tria_upper (1074) I summary:volume (1074) I summary:zeffv (1074)

7.9.1.1.188 ref_nt

set of non-timed references

member	type	description
zerod_real	ref_nt_0dr (7.9.1.1.191)	0d reference of real type
zerod_int	ref_nt_0di (7.9.1.1.189)	0d reference of integer type
zerod_string	ref_nt_0ds (7.9.1.1.193)	0d reference of string type
oned_real	ref_nt_1dr (7.9.1.1.197)	1d reference of real type
oned_int	ref_nt_1di (7.9.1.1.195)	1d reference of integer type

Type of: reference:non_timed (1071)

7.9.1.1.189 ref_nt_0di

set of non-timed references of integer type

member	type	description
ref1	ref_nt_0di_ref (7.9.1.1.190)	Reference signal #1
ref2	ref_nt_0di_ref (7.9.1.1.190)	Reference signal #2
ref3	ref_nt_0di_ref (7.9.1.1.190)	Reference signal #3
ref4	ref_nt_0di_ref (7.9.1.1.190)	Reference signal #4

Type of: ref_nt:zerod_int (1213)

7.9.1.1.190 ref_nt_0di_ref

a non-timed reference of integer type

member	type	description
value	integer (7.9.1.1.3)	Value of the reference. Integer scalar.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_nt_0di:ref1 (1214) I ref_nt_0di:ref2 (1214) I ref_nt_0di:ref3 (1214) I ref_nt_0di:ref4 (1214)

7.9.1.1.191 ref_nt_0dr

set of non-timed references of real type

member	type	description
ref1	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #1
ref2	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #2
ref3	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #3
ref4	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #4
ref5	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #5
ref6	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #6
ref7	ref_nt_0dr_ref (7.9.1.1.192)	Reference signal #7

Type of: ref_nt:zerod_real (1213)

7.9.1.1.192 ref_nt_0dr_ref

a non-timed reference of real type

member	type	description
value	float (7.9.1.1.2)	Value of the reference. Real scalar.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_nt_0dr:ref1 (1216) I ref_nt_0dr:ref2 (1216) I ref_nt_0dr:ref3 (1216) I ref_nt_0dr:ref4 (1216) I ref_nt_0dr:ref5 (1216) I ref_nt_0dr:ref6 (1216) I ref_nt_0dr:ref7 (1216)

7.9.1.1.193 ref_nt_0ds

set of non-timed references of string type

member	type	description
ref1	ref_nt_0ds_ref (7.9.1.1.194)	Reference signal #1
ref2	ref_nt_0ds_ref (7.9.1.1.194)	Reference signal #2

Type of: ref_nt:zerod_string (1213)

7.9.1.1.194 ref_nt_0ds_ref

a non-timed reference of string type

member	type	description
value	string (7.9.1.1.4)	Value of the reference. String

member	type	description
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_nt_0ds:ref1 (1218) I ref_nt_0ds:ref2 (1218)

7.9.1.1.195 ref_nt_1di

set of non-timed references of vecint type

member	type	description
ref1	ref_nt_1di_ref (7.9.1.1.196)	Reference signal #1
ref2	ref_nt_1di_ref (7.9.1.1.196)	Reference signal #2
ref3	ref_nt_1di_ref (7.9.1.1.196)	Reference signal #3
ref4	ref_nt_1di_ref (7.9.1.1.196)	Reference signal #4

Type of: ref_nt:oned_int (1213)

7.9.1.1.196 ref_nt_1di_ref

a non-timed reference of vecint type

member	type	description
value	vecint_type (7.9.1.1.15)	Value of the reference. Vector of integers.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_nt_1di:ref1 (1220) I ref_nt_1di:ref2 (1220) I ref_nt_1di:ref3 (1220) I ref_nt_1di:ref4 (1220)

7.9.1.1.197 ref_nt_1dr

set of non-timed references of vecflt type

member	type	description
ref1	ref_nt_1dr_ref (7.9.1.1.198)	Reference signal #1
ref2	ref_nt_1dr_ref (7.9.1.1.198)	Reference signal #2
ref3	ref_nt_1dr_ref (7.9.1.1.198)	Reference signal #3
ref4	ref_nt_1dr_ref (7.9.1.1.198)	Reference signal #4
ref5	ref_nt_1dr_ref (7.9.1.1.198)	Reference signal #5

Type of: ref_nt:oned_real (1213)

7.9.1.1.198 ref_nt_1dr_ref

a non-timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of the reference. Vector.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_nt_1dr:ref1 (1222) I ref_nt_1dr:ref2 (1222) I ref_nt_1dr:ref3 (1222) I ref_nt_1dr:ref4 (1222) I ref_nt_1dr:ref5 (1222)

7.9.1.1.199 ref_t

set of timed references

member	type	description
zerod_real	ref_t_0dr (7.9.1.1.202)	0d reference of real type
zerod_int	ref_t_0di (7.9.1.1.200)	0d reference of integer type
oned_real	ref_t_1dr (7.9.1.1.206)	1d reference of real type
oned_int	ref_t_1di (7.9.1.1.204)	1d reference of integer type

Type of: reference:timed (1071)

7.9.1.1.200 ref_t_0di

set of timed references of integer type

member	type	description
ref1	ref_t_0di_ref (7.9.1.1.201)	Reference signal #1
ref2	ref_t_0di_ref (7.9.1.1.201)	Reference signal #2
ref3	ref_t_0di_ref (7.9.1.1.201)	Reference signal #3
ref4	ref_t_0di_ref (7.9.1.1.201)	Reference signal #4

Type of: ref_t:zerod_int (1224)

7.9.1.1.201 ref_t_0di_ref

a timed reference of integer type

member	type	description
value	integer (7.9.1.1.3)	Value of the reference. Integer scalar. Time-dependent.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_t_0di:ref1 (1225) I ref_t_0di:ref2 (1225) I ref_t_0di:ref3 (1225) I ref_t_0di:ref4 (1225)

7.9.1.1.202 ref_t_0dr

set of timed references of real type

member	type	description
ref1	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #1
ref2	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #2
ref3	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #3
ref4	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #4
ref5	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #5
ref6	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #6
ref7	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #7
ref8	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #8
ref9	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #9
ref10	ref_t_0dr_ref (7.9.1.1.203)	Reference signal #10

Type of: ref_t:zerod_real (1224)

7.9.1.1.203 ref_t_0dr_ref

a timed reference of real type

member	type	description
value	float (7.9.1.1.2)	Value of the reference. Real scalar. Time-dependent.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_t_0dr:ref1 (1227) I ref_t_0dr:ref10 (1227) I ref_t_0dr:ref2 (1227) I ref_t_0dr:ref3 (1227) I ref_t_0dr:ref4 (1227) I ref_t_0dr:ref5 (1227) I ref_t_0dr:ref6 (1227) I ref_t_0dr:ref7 (1227) I ref_t_0dr:ref8 (1227) I ref_t_0dr:ref9 (1227)

7.9.1.1.204 ref_t_1di

set of timed references of vecint type

member	type	description
ref1	ref_t_1di_ref (7.9.1.1.205)	Reference signal #1
ref2	ref_t_1di_ref (7.9.1.1.205)	Reference signal #2

member	type	description
ref3	ref_t_1di_ref (7.9.1.1.205)	Reference signal #3
ref4	ref_t_1di_ref (7.9.1.1.205)	Reference signal #4

Type of: ref_t:oned_int (1224)

7.9.1.1.205 ref_t_1di_ref

a timed reference of vecint type

member	type	description
value	vecint_type (7.9.1.1.15)	Value of the reference. Vector of integers. Time-dependent.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_t_1di:ref1 (1229) I ref_t_1di:ref2 (1229) I ref_t_1di:ref3 (1229) I ref_t_1di:ref4 (1229)

7.9.1.1.206 ref_t_1dr

set of timed references of vecflt type

member	type	description
ref1	ref_t_1dr_ref (7.9.1.1.207)	Reference signal #1
ref2	ref_t_1dr_ref (7.9.1.1.207)	Reference signal #2
ref3	ref_t_1dr_ref (7.9.1.1.207)	Reference signal #3
ref4	ref_t_1dr_ref (7.9.1.1.207)	Reference signal #4
ref5	ref_t_1dr_ref (7.9.1.1.207)	Reference signal #5

Type of: ref_t:oned_real (1224)

7.9.1.1.207 ref_t_1dr_ref

a timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of the reference. Vector. Time-dependent.
description	string (7.9.1.1.4)	Description of the reference. String.

Type of: ref_t_1dr:ref1 (1231) I ref_t_1dr:ref2 (1231) I ref_t_1dr:ref3 (1231) I ref_t_1dr:ref4 (1231) I ref_t_1dr:ref5 (1231)

7.9.1.1.208 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.1.1.14)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.1.1.14)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (1101)

7.9.1.1.209 rf_beam

Beam characteristics (RF wave description)

member	type	description
spot	spot (7.9.1.1.257)	Spot characteristics
phaseellipse	phaseellipse (7.9.1.1.173)	Phase ellipse characteristics of the spot

Type of: antenna_ec:beam (1081) I antenna_lh:beam (1083) I launchs:beam (1061)

7.9.1.1.210 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.1.1.2)	Major radius [m]
z	float (7.9.1.1.2)	Altitude [m]

Type of: eqgeometry:active_limit (1149) I eqgeometry:geom_axis (1149) I eqgeometry:left_low_st (1149) I eqgeometry:left_up_st (1149) I eqgeometry:right_low_st (1149) I eqgeometry:right_up_st (1149) I mag_axis:position (1174)

7.9.1.1.211 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.1.1.14)	Major radius [m]
z	vecflt_type (7.9.1.1.14)	Altitude [m]

Type of: eqgeometry:xpts (1149) I flush:position (1156) I isoflux:position (1169) I limiter:position (1062) I q:position (1210) I setup_bprobe:position (1267) I tssetup:position (1307) I vessel:position (1078) I xpts:position (1318)

7.9.1.1.212 rz1D_npoints

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.1.1.14)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.1.1.14)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.1.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

Type of: eqgeometry:boundary (1149)

7.9.1.1.213 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.1.1.12)	Major radius [m]
z	matflt_type (7.9.1.1.12)	Altitude [m]

Type of: coord_sys:position (1101) I geom_iron:rzcoordinate (1162) I pfpageometry:rzcoordinate (1195) I profiles_2d:position (1205)

7.9.1.1.214 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.1.1.6)	Major radius [m]
z	array3dflt_type (7.9.1.1.6)	Altitude [m]

Type of: pfgeometry:rzcoordinate (1194) I straps:coord_strap (1287) I waves_grid:rz_position (1312)

7.9.1.1.215 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.1.1.14)	Major radius [m]

member	type	description
z	vecflt_type (7.9.1.1.14)	Altitude [m]
phi	vecflt_type (7.9.1.1.14)	Toroidal angle [rad]

Type of: antenna_ec:position (1081) I launchs:position (1061) I setup_inject:position (1269) I setup_line:pivot_point (1270) I setup_line:second_point (1270) I setup_line:third_point (1270)

7.9.1.1.216 rzphi1Dexp

Structure for list of R,Z,phi positions (1D)

member	type	description
r	exp1D (7.9.1.1.128)	Major radius [m]
z	exp1D (7.9.1.1.128)	Altitude [m]
phi	exp1D (7.9.1.1.128)	Toroidal angle [rad]

Type of: antenna_lh:position (1083) I cxsetup:position (1114) I ecesetup:position (1146)

7.9.1.1.217 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.1.1.12)	Major radius [m]
z	matflt_type (7.9.1.1.12)	Altitude [m]
phi	matflt_type (7.9.1.1.12)	Toroidal angle [rad]

Type of: beamlets:position (1088) I setup_floops:position (1268)

7.9.1.1.218 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.1.1.14)	Position : major radius [m]
z	vecflt_type (7.9.1.1.14)	Position : altitude [m]
phi	vecflt_type (7.9.1.1.14)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.1.1.14)	Width : major radius [m]
dz	vecflt_type (7.9.1.1.14)	Width : altitude [m]
dphi	vecflt_type (7.9.1.1.14)	Width : toroidal angle [rad]

Type of: setup_mse:rzgamma (1271)

7.9.1.1.219 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.1.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.1.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.1.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.1.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (1072)

7.9.1.1.220 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.1.1.14)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.1.1.12)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.1.1.14)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.1.1.12)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.1.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.1.1.14)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.1.1.14)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.1.1.14)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.1.1.14)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (1072)

7.9.1.1.221 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.1.1.238)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.1.1.238)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.1.1.238)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.1.1.238)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.1.1.238)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.1.1.238)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.1.1.238)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.1.1.238)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.1.1.238)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.1.1.238)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.1.1.238)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (1073)

7.9.1.1.222 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.1.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.1.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.1.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.1.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.1.1.15)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.1.1.14)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.1.1.14)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.1.1.14)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.1.1.14)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (1073)

7.9.1.1.223 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.1.1.230)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.1.1.4)	name of the L-mode scaling law. String.

member	type	description
hmode_sc	string (7.9.1.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.1.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.1.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.1.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.1.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.1.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.1.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.1.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.1.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.1.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.1.1.4)	chemical compostion of the divertor
coordinate	string (7.9.1.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.1.1.238)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.1.1.238)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.1.1.230)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.1.1.238)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.1.1.238)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.1.1.230)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.1.1.238)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.1.1.238)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.1.1.230)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.1.1.238)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.1.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.1.1.238)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.1.1.238)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.1.1.238)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.1.1.238)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.1.1.238)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.1.1.238)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (1073)

7.9.1.1.224 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.1.1.238)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.1.1.238)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.1.1.238)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.1.1.238)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.1.1.238)	electron energy confimenent time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.1.1.238)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.1.1.238)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.1.1.238)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.1.1.238)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (1073)

7.9.1.1.225 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.1.1.238)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.1.1.238)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.1.1.238)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.1.1.238)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.1.1.238)	Electron Cyclotron current drive [A]. Time-dependent.

member	type	description
i_fast_ion	scenario_ref (7.9.1.1.238)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.1.1.238)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.1.1.238)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.1.1.238)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.1.1.238)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.1.1.238)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.1.1.238)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.1.1.238)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.1.1.238)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.1.1.238)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (1073)

7.9.1.1.226 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.1.1.238)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.1.1.238)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.1.1.238)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.1.1.238)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.1.1.238)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.1.1.238)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.1.1.238)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.1.1.238)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.1.1.238)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.1.1.238)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.1.1.238)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.1.1.238)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (1073)

7.9.1.1.227 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.1.1.238)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.1.1.238)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.1.1.238)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.1.1.238)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.1.1.238)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.1.1.238)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.1.1.238)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.1.1.238)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.1.1.238)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.1.1.238)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.1.1.238)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.1.1.238)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.1.1.238)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.1.1.238)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.1.1.238)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.1.1.238)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (1073)

7.9.1.1.228 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.1.1.238)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.1.1.238)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.1.1.238)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.1.1.238)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.1.1.238)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.1.1.238)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.1.1.238)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.1.1.238)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.1.1.238)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.1.1.238)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.1.1.238)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.1.1.238)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.1.1.238)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.1.1.238)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.1.1.238)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.1.1.238)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (1073)

7.9.1.1.229 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.1.1.238)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.1.1.238)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.1.1.238)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.1.1.238)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.1.1.238)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.1.1.238)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.1.1.238)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.1.1.238)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.1.1.238)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.1.1.238)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.1.1.238)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.1.1.238)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.1.1.238)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.1.1.238)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.1.1.238)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.1.1.238)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.1.1.238)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.1.1.238)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.1.1.238)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.1.1.238)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.1.1.238)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.1.1.238)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.1.1.238)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.1.1.238)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.1.1.238)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.1.1.238)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.1.1.238)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.1.1.238)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.1.1.238)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.1.1.238)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.1.1.238)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.1.1.238)	power losses due to cold neutral ionization [W]. Time-dependent.

member	type	description
ploss	scenario_ref (7.9.1.1.238)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.1.1.238)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.1.1.238)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.1.1.238)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.1.1.238)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.1.1.238)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (1073)

7.9.1.1.230 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.1.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.1.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (1248) I scenario_configuration:ecrh_harm (1248) I scenario_configuration:ecrh_mode (1248) I scenario_configuration:grad_b_drift (1248) I scenario_itb:itb_type (1256)

7.9.1.1.231 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.1.1.238)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.1.1.238)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.1.1.238)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.1.1.238)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.1.1.238)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.1.1.238)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.1.1.238)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.1.1.238)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.1.1.238)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.1.1.238)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.1.1.238)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.1.1.230)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (1073)

7.9.1.1.232 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.1.1.238)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.1.1.238)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.1.1.238)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.1.1.238)	limiter/divertor ion density [m^-3]. Time-dependent.
p_peak_div	scenario_ref (7.9.1.1.238)	peak power on divertor [W]. Time-dependent.
surf_temp	scenario_ref (7.9.1.1.238)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.1.1.238)	Power flux on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.1.1.238)	radiative power in the divertor zone [W]. Time-dependent.
wall_temp	scenario_ref (7.9.1.1.238)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.1.1.238)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.

member	type	description
detach_state	scenario_ref (7.9.1.1.238)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	vecflt_type (7.9.1.1.14)	flux pump out for each ion species [s^-1]. Time-dependent.

Type of: scenario:lim_div_wall (1073)

7.9.1.1.233 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.1.1.238)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.1.1.238)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.1.1.238)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.1.1.238)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (1073)

7.9.1.1.234 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.1.1.238)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.1.1.238)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.1.1.238)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.1.1.238)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.1.1.238)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.1.1.238)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (1073)

7.9.1.1.235 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.1.1.238)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.1.1.238)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.1.1.238)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.1.1.238)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.1.1.238)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.1.1.238)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.1.1.238)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.1.1.238)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.1.1.238)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.1.1.238)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.1.1.238)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.1.1.238)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (1073)

7.9.1.1.236 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.1.1.238)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.1.1.238)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.1.1.238)	pedestal electron density [m^-3]. Time-dependent.

member	type	description
ni_ped	scenario_ref (7.9.1.1.238)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.1.1.238)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.1.1.238)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.1.1.238)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.1.1.238)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.1.1.238)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.1.1.238)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (1073)

7.9.1.1.237 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.1.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (1073)

7.9.1.1.238 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.1.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.1.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (1246) I scenario_centre:Zmag (1246) I scenario_centre:ne0 (1246) I scenario_centre:ni0 (1246) I scenario_centre:phi0 (1246) I scenario_centre:psi0 (1246) I scenario_centre:q0 (1246) I scenario_centre:shift0 (1246) I scenario_centre:te0 (1246) I scenario_centre:ti0 (1246) I scenario_centre:vtor_0 (1246) I scenario_configuration:LH_freq (1248) I scenario_configuration:LH_npar (1248) I scenario_configuration:ecrh_freq (1248) I scenario_configuration:ecrh_loc (1248) I scenario_configuration:ecrh_pol_ang (1248) I scenario_configuration:ecrh_tor_ang (1248) I scenario_configuration:enb (1248) I scenario_configuration:icrh_freq (1248) I scenario_configuration:icrh_phase (1248) I scenario_configuration:pellet_ang (1248) I scenario_configuration:pellet_nba (1248) I scenario_configuration:pellet_v (1248) I scenario_configuration:r_nbi (1248) I scenario_confinement:tau_cur_diff (1249) I scenario_confinement:tau_e (1249) I scenario_confinement:tau_e_ee (1249) I scenario_confinement:tau_e_ei (1249) I scenario_confinement:tau_e_ii (1249) I scenario_confinement:tau_h_sc (1249) I scenario_confinement:tau_he (1249) I scenario_confinement:tau_i_rol (1249) I scenario_confinement:tau_l_sc (1249) I scenario_currents:RR (1250) I scenario_currents:i_align (1250) I scenario_currents:i_boot (1250) I scenario_currents:i_cd_tot (1250) I scenario_currents:i_eccd (1250) I scenario_currents:i_fast_ion (1250) I scenario_currents:i_fwcd (1250) I scenario_currents:i_lhcd (1250) I scenario_currents:i_nbicd (1250) I scenario_currents:i_ni_tot (1250) I scenario_currents:i_ohm (1250) I scenario_currents:i_par (1250) I scenario_currents:i_runaway (1250) I scenario_currents:v_loop (1250) I scenario_currents:v_meas (1250) I scenario_edge:drho_edge_dt (1251) I scenario_edge:ne_edge (1251) I scenario_edge:neutral_flux (1251) I scenario_edge:ni_edge (1251) I scenario_edge:phi_edge (1251) I scenario_edge:phi_plasma (1251) I scenario_edge:psi_edge (1251) I scenario_edge:q_edge (1251) I scenario_edge:rho_edge (1251) I scenario_edge:te_edge (1251) I scenario_edge:ti_edge (1251) I scenario_edge:vtor_edge (1251) I scenario_energy:dwbpol_dt (1252) I scenario_energy:dwbtorpla_dt (1252) I scenario_energy:dwdia_dt (1252) I scenario_energy:dwth_dt (1252) I scenario_energy:dwtot_dt (1252) I scenario_energy:esup_alpha (1252) I scenario_energy:esup_icrhper (1252) I scenario_energy:esup_icrhtot (1252) I scenario_energy:esup_lhcd (1252) I scenario_energy:esup_nbiperp (1252) I scenario_energy:esup_nbitot (1252) I scenario_energy:w_b_pol (1252) I scenario_energy:w_b_tor_pla (1252) I scenario_energy:w_dia (1252) I scenario_energy:w_th (1252) I scenario_energy:w_tot (1252) I scenario_global:area_ext (1253) I scenario_global:area_pol (1253) I scenario_global:beta_n_th (1253) I scenario_global:beta_normal (1253) I scenario_global:beta_pol (1253) I scenario_global:beta_pol_th (1253) I scenario_global:beta_tor (1253) I scenario_global:beta_tor_th (1253) I scenario_global:dip_dt (1253) I scenario_global:disruption (1253) I scenario_global:ip (1253) I scenario_global:len_sepa (1253) I scenario_global:li (1253) I scenario_global:mode_h (1253) I scenario_global:s_alpha (1253) I scenario_global:volume (1253) I scenario_heat_power:p_l2h_sc (1254) I scenario_heat_power:p_l2h_thr (1254) I scenario_heat_power:p_nbi_icrh (1254) I scenario_heat_power:p_w (1254) I scenario_heat_power:p_wth (1254) I scenario_heat_power:padd_tot (1254) I scenario_heat_power:pbrem (1254) I scenario_heat_power:pcyclo (1254) I scenario_heat_power:pdd_fus (1254) I scenario_heat_power:pecrh (1254) I scenario_heat_power:pecrh_th (1254) I scenario_heat_power:pei (1254) I scenario_heat_power:pel_fus (1254) I scenario_heat_power:pel_icrh

(1254) I scenario_heat_power:pel_nbi (1254) I scenario_heat_power:pel_tot (1254) I scenario_heat_power:pfus_dt (1254) I scenario_heat_power:pfus_nbi (1254) I scenario_heat_power:pfus_th (1254) I scenario_heat_power:picrh (1254) I scenario_heat_power:picrh_th (1254) I scenario_heat_power:pion_fus (1254) I scenario_heat_power:pion_icrh (1254) I scenario_heat_power:pion_nbi (1254) I scenario_heat_power:pion_tot (1254) I scenario_heat_power:pioniz (1254) I scenario_heat_power:plh (1254) I scenario_heat_power:plh_th (1254) I scenario_heat_power:ploss (1254) I scenario_heat_power:ploss_fus (1254) I scenario_heat_power:ploss_icrh (1254) I scenario_heat_power:ploss_nbi (1254) I scenario_heat_power:pnbi (1254) I scenario_heat_power:pnbi_co_cur (1254) I scenario_heat_power:pnbi_counter (1254) I scenario_heat_power:pnbi_th (1254) I scenario_heat_power:pohmic (1254) I scenario_heat_power:prad (1254) I scenario_itb:h_itb (1256) I scenario_itb:ne_itb (1256) I scenario_itb:ni_itb (1256) I scenario_itb:phi_itb (1256) I scenario_itb:psi_itb (1256) I scenario_itb:q_min (1256) I scenario_itb:rho_itb (1256) I scenario_itb:te_itb (1256) I scenario_itb:ti_itb (1256) I scenario_itb:vtor_itb (1256) I scenario_itb:width_itb (1256) I scenario_lim_div_wall:detach_st (1257) I scenario_lim_div_wall:ne_lim_div (1257) I scenario_lim_div_wall:ni_lim_div (1257) I scenario_lim_div_wall:p_lim_div (1257) I scenario_lim_div_wall:p_peak_div (1257) I scenario_lim_div_wall:p_rad_div (1257) I scenario_lim_div_wall:surf_temp (1257) I scenario_lim_div_wall:te_lim_div (1257) I scenario_lim_div_wall:ti_lim_div (1257) I scenario_lim_div_wall:wall_state (1257) I scenario_lim_div_wall:wall_temp (1257) I scenario_line_ave:dne_line_dt (1258) I scenario_line_ave:ne_line (1258) I scenario_line_ave:ne_zeff_line (1258) I scenario_line_ave:zeff_line (1258) I scenario_neutron:ndd_nbi_nbi (1259) I scenario_neutron:ndd_nbi_th (1259) I scenario_neutron:ndd_th (1259) I scenario_neutron:ndd_tot (1259) I scenario_neutron:ndt_th (1259) I scenario_neutron:ndt_tot (1259) I scenario_ninety_five:elong_95 (1260) I scenario_ninety_five:ne_95 (1260) I scenario_ninety_five:ni_95 (1260) I scenario_ninety_five:phi_95 (1260) I scenario_ninety_five:q_ (1260) I scenario_ninety_five:rho_95 (1260) I scenario_ninety_five:te_95 (1260) I scenario_ninety_five:ti_95 (1260) I scenario_ninety_five:tria_95 (1260) I scenario_ninety_five:tria_lo_95 (1260) I scenario_ninety_five:tria_up_95 (1260) I scenario_ninety_five:vtor_95 (1260) I scenario_pedestal:ne_ped (1261) I scenario_pedestal:ni_ped (1261) I scenario_pedestal:phi_ped (1261) I scenario_pedestal:pressure_ped (1261) I scenario_pedestal:psi_ped (1261) I scenario_pedestal:q_ped (1261) I scenario_pedestal:rho_ped (1261) I scenario_pedestal:te_ped (1261) I scenario_pedestal:ti_ped (1261) I scenario_pedestal:vtor_ped (1261) I scenario_references:bvac_r (1264) I scenario_references:enhancement (1264) I scenario_references:ip (1264) I scenario_references:isotopic (1264) I scenario_references:nbar (1264) I scenario_references:nbi_td_ratio (1264) I scenario_references:pecrh (1264) I scenario_references:picrh (1264) I scenario_references:plh (1264) I scenario_references:pnbi (1264) I scenario_references:pol_flux (1264) I scenario_references:xecrh (1264) I scenario_references:zeffl (1264) I scenario_sol:l_ne_sol (1265) I scenario_sol:l_ni_sol (1265) I scenario_sol:l_qe_sol (1265) I scenario_sol:l_qi_sol (1265) I scenario_sol:l_te_sol (1265) I scenario_sol:l_ti_sol (1265) I scenario_sol:p_rad_sol (1265) I scenario_vol_ave:dne_ave_dt (1266) I scenario_vol_ave:meff_ave (1266) I scenario_vol_ave:ne_ave (1266) I scenario_vol_ave:ni_ave (1266) I scenario_vol_ave:omega_ave (1266) I scenario_vol_ave:pellet_flux (1266) I scenario_vol_ave:te_ave (1266) I scenario_vol_ave:ti_ave (1266) I scenario_vol_ave:ti_o_te_ave (1266) I scenario_vol_ave:zeff_ave (1266)

7.9.1.1.239 scenario_references

References

member	type	description
plh	scenario_ref (7.9.1.1.238)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.1.1.238)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.1.1.238)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.1.1.238)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.1.1.238)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.1.1.238)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.1.1.238)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.1.1.238)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.1.1.238)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.1.1.238)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.1.1.238)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.1.1.238)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.1.1.238)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.

Type of: scenario:references (1073)

7.9.1.1.240 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.1.1.238)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.1.1.238)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.1.1.238)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.1.1.238)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.1.1.238)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.1.1.238)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.1.1.238)	radiative power of the SOL [W]. Time-dependent.
gaz_puff	vecflt_type (7.9.1.1.14)	gaz puff flux for each ion species [s^-1]. Time-dependent.

Type of: scenario:sol (1073)

7.9.1.1.241 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.1.1.238)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.1.1.238)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.1.1.238)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.1.1.238)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.1.1.238)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.1.1.238)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.1.1.238)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.1.1.238)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.1.1.238)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.1.1.14)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.1.1.238)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (1073)

7.9.1.1.242 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.1.1.16)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.1.1.211)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.1.1.14)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.1.1.14)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.1.1.14)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.1.1.14)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.1.1.15)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (1096)

7.9.1.1.243 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.1.1.16)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.1.1.16)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.1.1.217)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.1.1.15)	Number of points describing each loop in the "position" matrices. Vector (nloops)

Type of: flux_loops:setup_floops (1157)

7.9.1.1.244 setup_inject

Detailed information on an injection unit.

member	type	description
position	rzphi1D (7.9.1.1.215)	Position of centre of injection unit surface. Vectors(nunits).
tang_rad	vecflt_type (7.9.1.1.14)	Tagency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]; Vector(nunits)
angle	vecflt_type (7.9.1.1.14)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]; Vector(nunits)
direction	vecint_type (7.9.1.1.15)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise; Vector(nunits)
div_vert	vecflt_type (7.9.1.1.14)	Beam divergence for a unit in the vertical direction[rad]; Vector(nunits)
div_horiz	vecflt_type (7.9.1.1.14)	Beam divergence for a unit in the horizontal direction[rad]; Vector(nunits)
focal_len_hz	vecflt_type (7.9.1.1.14)	Horizontal focal length along the beam line [m], Vector(nunits)
focal_len_vc	vecflt_type (7.9.1.1.14)	Vertical focal length along the beam line [m], Vector(nunits)
beamlets	beamlets (7.9.1.1.63)	Detailed information on beamlets.

Type of: nbi:setup_inject (1066)

7.9.1.1.245 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.1.1.215)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.1.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.1.1.14)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.1.1.14)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.1.1.215)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.1.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.1.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.1.1.215)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.1.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: lineintegraldiag:setup_line (1172)

7.9.1.1.246 setup_mse

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.1.1.218)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.1.1.12)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: msediag:setup_mse (1065)

7.9.1.1.247 source_4d

Source of particles in phase space.

member	type	description
gyrosrc_type	vecint_type (7.9.1.1.15)	Defines how to interpret the source: 1 = the source is calulated at the particle birth point; 2 = the source is calulated at the gyro centre of the birth point. Vector(nsrc_spec)
grid_type	vecint_type (7.9.1.1.15)	Defines the four grid variables and the grid structure (rectangular, unstructured...): 1 = { R(c), z(c), ksi(c), E(d), rectangular} ; 2 = { R(c), z(c), ksi(c), E(c), rectangular} . Here the variable ksi=v_parallel/v. Here, (c) stands for source countinuously distributed over grid (e.g. to treat the continuous energy spectra of alpha sources), (d) stands for discretely distributed source; localised to the grid (e.g. to treat the discrete energies injected with NBI). The dimensions of the variables are: R [m], z [m], E [J], ksi=v_parallel/v [1]. For rectangular grids the grid is defined in rect_grid. Vector(nsrc_spec)
rect_grid	distsource_rect_grid (7.9.1.1.119)	Details of rectangular grids.
source	array5dflt_type (7.9.1.1.9)	Phase space source of particles; the units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if continuous; Time-dependent; Array5d (nsrc_spec, ndim1, ndim2, ndim3, ndim4)

Type of: distsource:source_4d (1055)

7.9.1.1.248 source_el

Subtree containing source terms for electrons

member	type	description
exp	vecflt_type (7.9.1.1.14)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.1.1.14)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource:qe (1051) I coresource:se (1051)

7.9.1.1.249 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	array3dflt_type (7.9.1.1.6)	Explicit source term [same unit as root quantity]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
imp	array3dflt_type (7.9.1.1.6)	Implicit source term [s^-1.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)

Type of: coresource:qz (1051) I coresource:sz (1051)

7.9.1.1.250 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.1.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.1.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource:qi (1051) I coresource:si (1051) I coresource:ui (1051)

7.9.1.1.251 source_tp

Source given as a set of test particles. Note that the test particles are given at the source location and not at the gyrocentre. Note that max_n_particles should be the maximum both over species and time (since the number of test particles can change with time)

member	type	description
n_particles	vecint_type (7.9.1.1.15)	Number of test particle for each species; Time-dependent; Vector (nsrc_spec)
var_type	integer (7.9.1.1.3)	Identification of variables: 1 = { R, z, phi, v, ksi, R*v_phi } ; 2 = { R, z, phi, Energy, ksi, R*v_phi } ; 3 = { Energy, magnetic momentum, toroidal angular momentum}. Dimensions of variables: R [m], z [m], phi [rad], v [m/s], v_phi[m/s], ksi=v_parallel/v [1].
var1	matflt_type (7.9.1.1.12)	Phase space variable number one characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)

member	type	description
var2	matflt_type (7.9.1.1.12)	Phase space variable number two characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var3	matflt_type (7.9.1.1.12)	Phase space variable number three characterising a test particle; Time-dependent; Matrix (nsrc_spec, max_n_particles)
var4	matflt_type (7.9.1.1.12)	Phase space variable number four characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var5	matflt_type (7.9.1.1.12)	Phase space variable number five characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var6	matflt_type (7.9.1.1.12)	Phase space variable number six characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
weight	matflt_type (7.9.1.1.12)	Weight of test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)

Type of: distsource:source_tp (1055)

7.9.1.1.252 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.1.1.14)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.1.1.14)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.1.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (1102)

7.9.1.1.253 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	array3dflt_type (7.9.1.1.6)	Value of the source term [m^-3.s^-1]; Time-dependent; Array3D (nrho,nimp,max_nzimp)
integral	array3dflt_type (7.9.1.1.6)	Integral from 0 to rho of the source term. Time-dependent; Array3D(nsource,nimp,max_nzimp)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:source_term (1048)

7.9.1.1.254 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.1.1.12)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.1.1.12)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.1.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (1103)

7.9.1.1.255 special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	midplane (7.9.1.1.153)	Intersections with the midplane
turning_pts	turning_pts (7.9.1.1.283)	Location of turning points

Type of: orb_glob_dat:special_pos (1185)

7.9.1.1.256 spectrum

Spectral properties of the wave.

member	type	description
nn_phi	vecint_type (7.9.1.1.15)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.1.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.1.1.12)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.1.1.12)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.1.1.6)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: launchs:spectrum (1061)

7.9.1.1.257 spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.1.1.12)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.1.1.14)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: rf_beam:spot (1234)

7.9.1.1.258 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	matflt_type (7.9.1.1.12)	Effective coefficient of physical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.
chemical	matflt_type (7.9.1.1.12)	Effective coefficient of chemical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:sputtering (1098)

7.9.1.1.259 src_snk_fav

member	type	description
particles	matflt_type (7.9.1.1.12)	Source/sink particles [s^1 m^-3]; Time-dependedent; Matrix(nsrc_spec, max_npsi)
power	matflt_type (7.9.1.1.12)	Power density associated with the source/sink of particles [W/m^3]; Time-dependent; Matrix(nsrc_spec, max_npsi)
torque	matflt_type (7.9.1.1.12)	Torque density due to the source/sink of particles [Nm/m^3]; Time dependent; Matrix (nsrc_spec, max_npsi)

7.9.1.1.260 src_snk_int

member	type	description
particles	matflt_type (7.9.1.1.12)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector(nsrc_spec, max_npsi)
power	matflt_type (7.9.1.1.12)	Power associated with the source/sink of particles [MW/m^3]; Time-dependent; Vector(nsrc_spec, max_npsi)
torque	matflt_type (7.9.1.1.12)	Torque due to the source/sink of particles [Nm/m^3]; Time dependent; Vector (nsrc_spec, max_npsi)

7.9.1.1.261 src_snk_tot

member	type	description
particles	vecflt_type (7.9.1.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector(nsrc_spec)
power	vecflt_type (7.9.1.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector(nsrc_spec)
torque	vecflt_type (7.9.1.1.14)	Torque due to the source/sink of particles [Nm]; Time dependent; Vector (nsrc_spec)

7.9.1.1.262 straps

Properties of each IC antenna strap

member	type	description
nstraps	vecint_type (7.9.1.1.15)	Number of straps in each antenna; Vector (nantenna_ic)
phase	exp2D (7.9.1.1.129)	Phase of strap current [rad]; Time-dependent; Matrix (nantenna_ic, max_nstraps)
phi_centre	matflt_type (7.9.1.1.12)	Toroidal angle at the centre of the strap [rad]; Matrix (nantenna_ic, max_nstraps)
width	matflt_type (7.9.1.1.12)	Width of strap in the toroidal direction [m]; Matrix (nantenna_ic, max_nstraps)
dist2wall	matflt_type (7.9.1.1.12)	Distance to conducting wall or other conducter behind the antenna straps [m]; Matrix (nantenna_ic, max_nstraps)
ncoord_strap	matint_type (7.9.1.1.13)	Number of point in the polygon describing the antenna in the poloidal plane; Matrix (nantenna_ic, max_nstraps)
coord_strap	rz3D (7.9.1.1.214)	Coordinates (R,z) of polygon (of length ncoord_strap) describing the antenna in the poloidal plane; rz3d array (nantenna_ic, max_nstraps, max_ncoord_strap)

Type of: antennaic_setup:straps (1084)

7.9.1.1.263 table_0d

member	type	description
table	matflt_type (7.9.1.1.12)	interpolation data, Array(nz,nproc0d)

Type of: tables:table_0d (1299)

7.9.1.1.264 table_1d

member	type	description
table_prop	table_info1 (7.9.1.1.269)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord1)
table	array3dflt_type (7.9.1.1.6)	interpolation data, Array(ncoord1, nz, nproc1d)

Type of: tables:table_1d (1299)

7.9.1.1.265 table_2d

member	type	description
table_prop	table_info2 (7.9.1.1.270)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord2)
table	array4dflt_type (7.9.1.1.8)	Interpolation data , Array(ncoord1,ncoord2, nz, nproc2d)

Type of: tables:table_2d (1299)

7.9.1.1.266 table_3d

member	type	description
table_prop	table_info3 (7.9.1.1.271)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord3)
table	array5dflt_type (7.9.1.1.9)	interpolation data , Array(ncoord1,ncoord2,ncoord3, nz, nproc3d)

Type of: tables:table_3d (1299)

7.9.1.1.267 table_4d

member	type	description
table_prop	table_info4 (7.9.1.1.272)	Information on the properties of the table and the coordinates.

member	type	description
coord1	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord3)
coord4	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord4)
table	array6dflt_type (7.9.1.1.10)	interpolation data , Array(ncoord1,ncoord2,ncoord3,ncoord4, nz, nproc4d)

Type of: tables:table_4d (1299)

7.9.1.1.268 table_5d

member	type	description
table_prop	table_info5 (7.9.1.1.273)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord3)
coord4	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord4)
coord5	vecflt_type (7.9.1.1.14)	value of coordinate; Vector(ncoord5)
table	array6dflt_type (7.9.1.1.10)	interpolation data , Array(ncoord1,ncoord2,ncoord3,ncoord4,ncoord5, nz, nproc5d). DECLARED AS 6D ARRAY FOR THE MOMENT UNTIL WE UPDATE UAL TO A 7D.

Type of: tables:table_5d (1299)

7.9.1.1.269 table_info1

Information on the amns table

member	type	description
coord_extrap	matint_type (7.9.1.1.13)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc1d, 2)
interp_type	integer (7.9.1.1.3)	1: linear; ... ; Vector(nproc1d)
coord_label	string (7.9.1.1.4)	description of the coordinate, string.
coord_unit	string (7.9.1.1.4)	units of coordinate; string
coord_trans	integer (7.9.1.1.3)	0 : none; 1 : log10; 2 : ln; Integer
unif_spacing	integer (7.9.1.1.3)	for optimization purposes

Type of: table_1d:table_prop (1289)

7.9.1.1.270 table_info2

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.1.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc2d, 2, 2)
interp_type	vecint_type (7.9.1.1.15)	1: linear; ... Vector(nproc2d)
coord_label	vecstring_type (7.9.1.1.16)	description of each coordinate, Vector(2).
coord_unit	vecstring_type (7.9.1.1.16)	units of coordinate; Vector(2)
coord_trans	vecint_type (7.9.1.1.15)	0 : none; 1 : log10; 2 : ln; Vector(2)
unif_spacing	integer (7.9.1.1.3)	for optimization purposes

Type of: table_2d:table_prop (1290)

7.9.1.1.271 table_info3

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.1.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc3d, 2, 3)
interp_type	vecint_type (7.9.1.1.15)	1: linear; ... ; Vector(nproc3d)
coord_label	vecstring_type (7.9.1.1.16)	description of each coordinate, Vector(3).
coord_unit	vecstring_type (7.9.1.1.16)	units of coordinate; Vector(3)
coord_trans	vecint_type (7.9.1.1.15)	0 : none; 1 : log10; 2 : ln; Vector(3)

member	type	description
unif_spacing	integer (7.9.1.1.3)	for optimization purposes

Type of: table_3d:table_prop (1291)

7.9.1.1.272 table_info4

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.1.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc4d, 2, 5)
interp_type	vecint_type (7.9.1.1.15)	1: linear; ... ; Vector(nproc4d)
coord_label	vecstring_type (7.9.1.1.16)	description of each coordinate, Vector(4).
coord_unit	vecstring_type (7.9.1.1.16)	units of coordinate; Vector(4)
coord_trans	vecint_type (7.9.1.1.15)	0 : none; 1 : log10; 2 : ln; Vector(4)
unif_spacing	integer (7.9.1.1.3)	for optimization purposes

Type of: table_4d:table_prop (1292)

7.9.1.1.273 table_info5

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.1.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc5d, 2, 5)
interp_type	vecint_type (7.9.1.1.15)	1: linear; ... ; Vector(nproc5d)
coord_label	vecstring_type (7.9.1.1.16)	description of each coordinate, Vector(5).
coord_unit	vecstring_type (7.9.1.1.16)	units of coordinate; Vector(5)
coord_trans	vecint_type (7.9.1.1.15)	0 : none; 1 : log10; 2 : ln; Vector(5)
unif_spacing	integer (7.9.1.1.3)	for optimization purposes

Type of: table_5d:table_prop (1293)

7.9.1.1.274 tables

member	type	description
id	matint_type (7.9.1.1.13)	Pointer to table: (1,jproc) indicates table dimensionality for process jproc; (2,jproc) indicates position in that table (index of the last element in the array); Matrix(2,nprocs)
table_0d	table_0d (7.9.1.1.263)	NO DOCS
table_1d	table_1d (7.9.1.1.264)	NO DOCS
table_2d	table_2d (7.9.1.1.265)	NO DOCS
table_3d	table_3d (7.9.1.1.266)	NO DOCS
table_4d	table_4d (7.9.1.1.267)	NO DOCS
table_5d	table_5d (7.9.1.1.268)	NO DOCS

Type of: amns:tables (1045)

7.9.1.1.275 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	vecint_type (7.9.1.1.15)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : normal (geometrical) polar angle; 3 : other. If option three a transformation to the normal poloidal angle is provided in th2th_pol. MORE PRECISE DEFINITION WOULD BE USEFUL. Vector(nfreq)
th2th_pol	matflt_type (7.9.1.1.12)	Polar (geometrical) poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Matrix (nfreq, max_ntheta)

Type of: waves_grid:theta_info (1312)

7.9.1.1.276 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.1.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.1.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.1.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.1.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (1050)

7.9.1.1.277 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.1.1.14)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.1.1.14)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.1.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.1.1.158)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:te_transp (1052) I neoclassic:mtor_neo (1067) I neoclassic:ne_neo (1067) I neoclassic:te_neo (1067)

7.9.1.1.278 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	array3dflt_type (7.9.1.1.6)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
vconv_eff	array3dflt_type (7.9.1.1.6)	Effective convection [m.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
exchange	array3dflt_type (7.9.1.1.6)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flux	array3dflt_type (7.9.1.1.6)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp:nz_transp (1052) I coretransp:tz_transp (1052) I neoclassic:nz_neo (1067) I neoclassic:tz_neo (1067)

7.9.1.1.279 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.1.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.1.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.1.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.1.1.12)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.1.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.1.1.159)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.

member	type	description
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ti_transp (1052) I neoclassic:ni_neo (1067) I neoclassic:ti_neo (1067)

7.9.1.1.280 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.1.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.1.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.1.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.1.1.159)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.1.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:vtor_transp (1052)

7.9.1.1.281 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.1.1.128)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.1.1.128)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (1077)

7.9.1.1.282 tssetup

diagnostic setup information

member	type	description
position	rz1D (7.9.1.1.211)	RZ of intersection between laser and line of sight [m]; Vector (nchords)

Type of: tsdiag:setup (1077)

7.9.1.1.283 turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.1.1.162)	Position at upper turning point
lower	orbit_pos (7.9.1.1.162)	Position at lower turning point

Type of: special_pos:turning_pts (1280)

7.9.1.1.284 typelist

Definition of types for each neutral species

member	type	description
ntype	vecint_type (7.9.1.1.15)	For each neutral species, number of possible types considered (in terms of energy : cold, thermal, fast, NBI, ...). Vector of integers (nneut)
type	matint_type (7.9.1.1.13)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Matrix of integers (nneut,max_ntype)

Type of: composition_neutrals:typelist (1100)

7.9.1.1.285 waveguides

Waveguides description

member	type	description
nwm_theta	vecint_type (7.9.1.1.15)	Number of waveguides per module in the poloidal direction. Vector of integers (nantenna_lh).
nwm_phi	vecint_type (7.9.1.1.15)	Number of waveguides per module in the toroidal direction. Vector of integers (nantenna_lh).
mask	matint_type (7.9.1.1.13)	Mask of passive and active waveguides for an internal module, Matrix of integers (nantenna_lh,max_nwm_phi)
npwbm_phi	vecint_type (7.9.1.1.15)	Number of passive waveguide between modules in the toroidal direction. Vector of integers (nantenna_lh).
npwe_phi	vecint_type (7.9.1.1.15)	Number of passive waveguides on each antenna edge in the toroidal direction. Vector of integers (nantenna_lh).
sw_theta	vecflt_type (7.9.1.1.14)	Spacing between poloidally neighboring waveguides [m], Vector (nantenna_lh)
hw_theta	vecflt_type (7.9.1.1.14)	Height of waveguides in the poloidal direction [m], Vector (nantenna_lh)
bwa	vecflt_type (7.9.1.1.14)	Width of active waveguides [m], Vector (nantenna_lh)
biwp	vecflt_type (7.9.1.1.14)	Width of internal passive waveguides [m], Vector (nantenna_lh)
bewp	vecflt_type (7.9.1.1.14)	Width of edge passive waveguides [m], Vector (nantenna_lh)
e_phi	matflt_type (7.9.1.1.12)	Thickness between waveguides in the toroidal direction [m], Matrix (nantenna_lh,nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	matflt_type (7.9.1.1.12)	Short circuit length for passive waveguides [m], Matrix (nantenna_lh,nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (1179)

7.9.1.1.286 waves_global_param

Global wave deposition parameters

member	type	description
frequency	vecflt_type (7.9.1.1.14)	Wave frequency [Hz]; Time-dependent; Vector (nfreq)
name	vecstring_type (7.9.1.1.16)	Antenna name, Vector of strings (nfreq)
type	vecstring_type (7.9.1.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nfreq)
nntor	vecint_type (7.9.1.1.15)	Number of toroidal mode numbers for each frequency; Vector (nfreq)
ntor	matint_type (7.9.1.1.13)	Toroidal mode numbers; Time dependent; Matrix (nfreq, max_nntor)
f_assumption	matint_type (7.9.1.1.13)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer matrix (nfreq, nion+1). The first value of the second index corresponds to the electrons, then to the other ion species. Time-dependent.
power_tot	vecflt_type (7.9.1.1.14)	Total absorbed wave power for each frequency [W]; Time-dependent; Vector (nfreq)
p_frac_ntor	matflt_type (7.9.1.1.12)	Fraction of wave power per toroidal mode number; Time-dependent; Matrix (nfreq, max_nntor)
pow_i	matflt_type (7.9.1.1.12)	Wave power absorbed by an ion species [W]; Time-dependent; Matrix (nfreq,nion)
pow_e	vecflt_type (7.9.1.1.14)	Wave power absorbed by the electrons [W]; Time-dependent; Vector (nfreq)
pow_ntor_i	array3dflt_type (7.9.1.1.6)	Wave power absorbed by an ion species per toroidal mode number [W]; Time-dependent; Array 3D (nfreq,max_nntor,nion)
pow_ntor_e	matflt_type (7.9.1.1.12)	Wave power absorbed by the electrons per toroidal mode number [W]; Time-dependent; Matrix (nfreq, max_nntor)
cur_tor	vecflt_type (7.9.1.1.14)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (nfreq)
cur_tor_ntor	matflt_type (7.9.1.1.12)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (nfreq, max_nntor)
code_type	vecint_type (7.9.1.1.15)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Vector(nfreq)
freq_point	vecint_type (7.9.1.1.15)	Pointer to the frequency position in either the beamtracing or full wave branch for each frequency (the branch depends on code_type); Vector (nfreq)
toroid_field	b0r0 (7.9.1.1.62)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of parallel current densities in this CPO.

Type of: waves:global_param (1079)

7.9.1.1.287 waves_grid

Grid points for 1D and 2D profiles

member	type	description
rho_tor_norm	matflt_type (7.9.1.1.12)	Normalised toroidal flux coordinate at the grid points for 1D and 2D profiles; Time-dependent; vector(nfreq, max_npsi)
rho_tor	matflt_type (7.9.1.1.12)	Toroidal flux coordinate at the grid points for 1D and 2D profiles [m]; Time-dependent; vector(nfreq, max_npsi)
psi	matflt_type (7.9.1.1.12)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix(nfreq, max_npsi)
theta	matflt_type (7.9.1.1.12)	Grid points of the ploidal angle; Time-dependent; Matrix(nfreq, max_ntheta)
npsi	vecint_type (7.9.1.1.15)	Number of psi points in the grid for each frequency. Time-dependent; Vector (nfreq).
ntheta	vecint_type (7.9.1.1.15)	Number of theta points in the grid for each frequency. Time-dependent; Vector (nfreq).
rz_position	rz3D (7.9.1.1.214)	R (major radius) and Z (altitude) of grid points; Time-dependent; Array 3D (nfreq, max_npsi, max_ntheta)
theta_info	theta_info (7.9.1.1.275)	Information on the poloidal angle theta.

Type of: waves:grid (1079)

7.9.1.1.288 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	matflt_type (7.9.1.1.12)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Matrix (nfreq, max_npsi)
powd_e	matflt_type (7.9.1.1.12)	Flux surface averaged absorbed wave power density on electrons [W/m^3]; Time-dependent; Matrix (nfreq, max_npsi)
powd_i	array3dflt_type (7.9.1.1.6)	Flux surface averaged absorbed wave power density on ion species [W/m^3]; Time-dependent; Array3D (nfreq, max_npsi, nion)
powd_ntor	array3dflt_type (7.9.1.1.6)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
powd_ntor_e	array3dflt_type (7.9.1.1.6)	Flux surface averaged absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
powd_ntor_i	array4dflt_type (7.9.1.1.8)	Flux surface averaged power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array4D (nfreq, max_npsi, max_nntor, nion)
curd_tor	matflt_type (7.9.1.1.12)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (nfreq, max_npsi)
curd_torntor	array3dflt_type (7.9.1.1.6)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
pow_tot	matflt_type (7.9.1.1.12)	Volume integrated absorbed wave power density [W]; Time-dependent; Matrix (nfreq, max_npsi)
pow_e	matflt_type (7.9.1.1.12)	Volume integrated absorbed wave power density on electrons [W]; Time-dependent; Matrix (nfreq, max_npsi)
pow_i	array3dflt_type (7.9.1.1.6)	Volume integrated absorbed wave power density on ion species [W]; Time-dependent; Array3D (nfreq, max_npsi, nion)
pow_ntor	array3dflt_type (7.9.1.1.6)	Volume integrated power density for each toroidal mode number [W]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
pow_ntor_e	array3dflt_type (7.9.1.1.6)	Volume integrated power density for each toroidal mode number on the electrons [W]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
pow_ntor_i	array4dflt_type (7.9.1.1.8)	Volume integrated power density for each toroidal mode number on each ions species [W]; Time-dependent; Array4D (nfreq, max_npsi, max_nntor, nion)
curd_par	matflt_type (7.9.1.1.12)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Matrix (nfreq, max_npsi)
curd_parntor	array3dflt_type (7.9.1.1.6)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)
cur_tor	matflt_type (7.9.1.1.12)	Wave driven toroidal current inside a flux surface from stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (nfreq, max_npsi)
cur_tor_ntor	array3dflt_type (7.9.1.1.6)	Wave driven toroidal current inside a flux surface for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Array 3D (nfreq, max_npsi, max_nntor)

Type of: waves:profiles_1d (1079)

7.9.1.1.289 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	array3dflt_type (7.9.1.1.6)	Total wave power density; Time-dependent [W/m^3]; Array 3D (nfreq, max_npsi, max_ntheta)
powd_e	array3dflt_type (7.9.1.1.6)	Absorbed wave power density on electrons [W/m^3]; Time-dependent; Array3D (nfreq, max_npsi, max_ntheta)
powd_i	array4dflt_type (7.9.1.1.8)	Absorbed wave power density on ion species [W/m^3]; Time-dependent; Array4D (nfreq, max_npsi, max_ntheta, nion)
powd_ntor	array4dflt_type (7.9.1.1.8)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 4D (nfreq, max_npsi, max_ntheta, max_nntor)
powd_ntor_e	array4dflt_type (7.9.1.1.8)	Absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 4D (nfreq, max_npsi, max_ntheta, max_nntor)
powd_ntor_i	array5dflt_type (7.9.1.1.9)	Absorbed power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array5D (nfreq, max_npsi, max_ntheta, max_nntor, nion)
powd_iharm	array5dflt_type (7.9.1.1.9)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array6D (nfreq, max_npsi, max_ntheta, max_nntor, nion, max_nharm)

Type of: waves:profiles_2d (1079)

7.9.1.1.290 waves_rtposition

Ray/beam position

member	type	description
r	array3dflt_type (7.9.1.1.6)	Ray/beam major radius location [m]; Time-dependent; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints)
z	array3dflt_type (7.9.1.1.6)	Ray/beam vertical location [m]; Time-dependent; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints)
psi	array3dflt_type (7.9.1.1.6)	Poloidal magnetic flux coordinate of the ray/beam position [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints)
theta	array3dflt_type (7.9.1.1.6)	Ray/beam poloidal angle location [rad]; Time-dependent; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE THE PROFILES/GRID DEFINITIONS.
phi	array3dflt_type (7.9.1.1.6)	Ray/beam toroidal angle location [rdd]; Time-dependent; Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints)

Type of: beamtracing:position (1089)

7.9.1.1.291 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	array3dflt_type (7.9.1.1.6)	Ray/beam wave vector in the major radius direction [m-1], Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
kz	array3dflt_type (7.9.1.1.6)	Ray/beam wave vector in the vertical direction [m], Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
npar	array3dflt_type (7.9.1.1.6)	Ray/beam parallel refractive index, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
nperp	array3dflt_type (7.9.1.1.6)	Ray/beam perpendicular refractive index, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints). Time-dependent
ntor	array3dflt_type (7.9.1.1.6)	Ray/beam toroidal wave number, Array (3D) of double precision real (nfreq_beam, max_nbeams, max_npoints/1). If var_ntor(nfreq_beam)=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	vecint_type (7.9.1.1.15)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Vector if integer (nfreq_beam).

Type of: beamtracing:wavevector (1089)

7.9.1.1.292 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.1.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.1.1.4)	Name of the device
shot	integer (7.9.1.1.3)	Shot number

member	type	description
run	integer (7.9.1.1.3)	Run number
occurrence	integer (7.9.1.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (1115)

7.9.1.1.293 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.1.1.211)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.1.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.1.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.1.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.1.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.1.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (1148) itmtypes [555]

7.9.1.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.1.2.1 Fortran

7.9.1.2.2 amns

datainfo (1045)	amns%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	amns%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	amns%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	amns%datainfo%source (string) (7.9.1.1.4)
comment (1115)	amns%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	amns%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	amns%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	amns%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	amns%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	amns%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	amns%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	amns%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	amns%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	amns%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	amns%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	amns%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	amns%datainfo%putinfo%rights (string) (7.9.1.1.4)
version (1045)	amns%version (string) (7.9.1.1.4)
source (1045)	amns%source (string) (7.9.1.1.4)
zn (1045)	amns%zn (integer) (7.9.1.1.3)
zion (1045)	amns%zion (integer) (7.9.1.1.3)
amn (1045)	amns%amn (vecflt_type) (7.9.1.1.14)
state_label (1045)	amns%state_label (vecstring_type) (7.9.1.1.16)
result_label (1045)	amns%result_label (vecstring_type) (7.9.1.1.16)
result_unit (1045)	amns%result_unit (vecstring_type) (7.9.1.1.16)
result_trans (1045)	amns%result_trans (vecint_type) (7.9.1.1.15)
bundled (1045)	amns%bundled (integer) (7.9.1.1.3)
proc_label (1045)	amns%proc_label (vecstring_type) (7.9.1.1.16)
tables (1045)	amns%tables (tables) (7.9.1.1.274)
id (1299)	amns%tables%id (matint_type) (7.9.1.1.13)

[555] https://www.efda-itm.eu/ITM/html/itmtypes__4.08a.html

table (1293)	amns%tables%table_5d%table (array6dflt_type) (7.9.1.1.10)

7.9.1.2.3 antennas

datainfo (1046)	antennas%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	antennas%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	antennas%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	antennas%datainfo%source (string) (7.9.1.1.4)
comment (1115)	antennas%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	antennas%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	antennas%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	antennas%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	antennas%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	antennas%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	antennas%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	antennas%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	antennas%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	antennas%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	antennas%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	antennas%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	antennas%datainfo%putinfo%rights (string) (7.9.1.1.4)
antenna_ec (1046)	antennas%antenna_ec (antenna_ec) (7.9.1.1.56)
name (1081)	antennas%antenna_ec%name (vecstring_type) (7.9.1.1.16)
frequency (1081)	antennas%antenna_ec%frequency (vecflt_type) (7.9.1.1.14)
power (1081)	antennas%antenna_ec%power (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_ec%power%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_ec%power%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_ec%power%relerror (vecflt_type) (7.9.1.1.14)
mode (1081)	antennas%antenna_ec%mode (vecint_type) (7.9.1.1.15)
position (1081)	antennas%antenna_ec%position (rzphi1D) (7.9.1.1.215)
r (1240)	antennas%antenna_ec%position%r (vecflt_type) (7.9.1.1.14)
z (1240)	antennas%antenna_ec%position%z (vecflt_type) (7.9.1.1.14)
phi (1240)	antennas%antenna_ec%position%phi (vecflt_type) (7.9.1.1.14)
launchangles (1081)	antennas%antenna_ec%launchangles (launchangles) (7.9.1.1.146)
alpha (1171)	antennas%antenna_ec%launchangles%alpha (vecflt_type) (7.9.1.1.14)
beta (1171)	antennas%antenna_ec%launchangles%beta (vecflt_type) (7.9.1.1.14)
beam (1081)	antennas%antenna_ec%beam (rf_beam) (7.9.1.1.209)
spot (1234)	antennas%antenna_ec%beam%spot (spot) (7.9.1.1.257)
waist (1282)	antennas%antenna_ec%beam%spot%waist (matflt_type) (7.9.1.1.12)
angle (1282)	antennas%antenna_ec%beam%spot%angle (vecflt_type) (7.9.1.1.14)
phaseellipse (1234)	antennas%antenna_ec%beam%phaseellipse (phaseellipse) (7.9.1.1.173)
invcurvrad (1198)	antennas%antenna_ec%beam%phaseellipse%invcurvrad (matflt_type) (7.9.1.1.12)
angle (1198)	antennas%antenna_ec%beam%phaseellipse%angle (vecflt_type) (7.9.1.1.14)
antenna_ic (1046)	antennas%antenna_ic (antenna_ic) (7.9.1.1.57)
name (1082)	antennas%antenna_ic%name (vecstring_type) (7.9.1.1.16)
frequency (1082)	antennas%antenna_ic%frequency (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_ic%frequency%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_ic%frequency%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_ic%frequency%relerror (vecflt_type) (7.9.1.1.14)
power (1082)	antennas%antenna_ic%power (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_ic%power%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_ic%power%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_ic%power%relerror (vecflt_type) (7.9.1.1.14)
setup (1082)	antennas%antenna_ic%setup (antennaic_setup) (7.9.1.1.59)
straps (1084)	antennas%antenna_ic%setup%straps (straps) (7.9.1.1.262)
nstraps (1287)	antennas%antenna_ic%setup%straps%nstraps (vecint_type) (7.9.1.1.15)
phase (1287)	antennas%antenna_ic%setup%straps%phase (exp2D) (7.9.1.1.129)
value (1154)	antennas%antenna_ic%setup%straps%phase%value (matflt_type) (7.9.1.1.12)
abserror (1154)	antennas%antenna_ic%setup%straps%phase%abserror (matflt_type) (7.9.1.1.12)
relerror (1154)	antennas%antenna_ic%setup%straps%phase%relerror (matflt_type) (7.9.1.1.12)
phi_centre (1287)	antennas%antenna_ic%setup%straps%phi_centre (matflt_type) (7.9.1.1.12)

width (1287)	antennas%antenna_ic%setup%straps%width (matflt_type) (7.9.1.1.12)
dist2wall (1287)	antennas%antenna_ic%setup%straps%dist2wall (matflt_type) (7.9.1.1.12)
ncoord_strap (1287)	antennas%antenna_ic%setup%straps%ncoord_strap (matint_type) (7.9.1.1.13)
coord_strap (1287)	antennas%antenna_ic%setup%straps%coord_strap (rz3D) (7.9.1.1.214)
r (1239)	antennas%antenna_ic%setup%straps%coord_strap%r (array3dflt_type) (7.9.1.1.6)
z (1239)	antennas%antenna_ic%setup%straps%coord_strap%z (array3dflt_type) (7.9.1.1.6)
antenna_lh (1046)	antennas%antenna_lh (antenna_lh) (7.9.1.1.58)
name (1083)	antennas%antenna_lh%name (vecstring_type) (7.9.1.1.16)
frequency (1083)	antennas%antenna_lh%frequency (vecflt_type) (7.9.1.1.14)
power (1083)	antennas%antenna_lh%power (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_lh%power%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_lh%power%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_lh%power%relerror (vecflt_type) (7.9.1.1.14)
position (1083)	antennas%antenna_lh%position (rzphi1Dexp) (7.9.1.1.216)
r (1241)	antennas%antenna_lh%position%r (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_lh%position%r%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_lh%position%r%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_lh%position%r%relerror (vecflt_type) (7.9.1.1.14)
z (1241)	antennas%antenna_lh%position%z (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_lh%position%z%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_lh%position%z%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_lh%position%z%relerror (vecflt_type) (7.9.1.1.14)
phi (1241)	antennas%antenna_lh%position%phi (exp1D) (7.9.1.1.128)
value (1153)	antennas%antenna_lh%position%phi%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	antennas%antenna_lh%position%phi%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	antennas%antenna_lh%position%phi%relerror (vecflt_type) (7.9.1.1.14)
setup (1083)	antennas%antenna_lh%setup (antennalh_setup) (7.9.1.1.60)
modules (1085)	antennas%antenna_lh%setup%modules (modules) (7.9.1.1.154)
nma_theta (1179)	antennas%antenna_lh%setup%modules%nma_theta (vecint_type) (7.9.1.1.15)
nma_phi (1179)	antennas%antenna_lh%setup%modules%nma_phi (vecint_type) (7.9.1.1.15)
sm_theta (1179)	antennas%antenna_lh%setup%modules%sm_theta (vecflt_type) (7.9.1.1.14)
amplitude (1179)	antennas%antenna_lh%setup%modules%amplitude (array3dflt_type) (7.9.1.1.6)
phase (1179)	antennas%antenna_lh%setup%modules%phase (array3dflt_type) (7.9.1.1.6)
waveguides (1179)	antennas%antenna_lh%setup%modules%waveguides (waveguides) (7.9.1.1.285)
nwm_theta (1310)	antennas%antenna_lh%setup%modules%waveguides%nwm_theta (vecint_type) (7.9.1.1.15)
nwm_phi (1310)	antennas%antenna_lh%setup%modules%waveguides%nwm_phi (vecint_type) (7.9.1.1.15)
mask (1310)	antennas%antenna_lh%setup%modules%waveguides%mask (matint_type) (7.9.1.1.13)
npwbm_phi (1310)	antennas%antenna_lh%setup%modules%waveguides%npwbm_phi (vecint_type) (7.9.1.1.15)
npwe_phi (1310)	antennas%antenna_lh%setup%modules%waveguides%npwe_phi (vecint_type) (7.9.1.1.15)
sw_theta (1310)	antennas%antenna_lh%setup%modules%waveguides%sw_theta (vecflt_type) (7.9.1.1.14)
hw_theta (1310)	antennas%antenna_lh%setup%modules%waveguides%hw_theta (vecflt_type) (7.9.1.1.14)
bwa (1310)	antennas%antenna_lh%setup%modules%waveguides%bwa (vecflt_type) (7.9.1.1.14)
biwp (1310)	antennas%antenna_lh%setup%modules%waveguides%biwp (vecflt_type) (7.9.1.1.14)
bewp (1310)	antennas%antenna_lh%setup%modules%waveguides%bewp (vecflt_type) (7.9.1.1.14)
e_phi (1310)	antennas%antenna_lh%setup%modules%waveguides%e_phi (matflt_type) (7.9.1.1.12)
scl (1310)	antennas%antenna_lh%setup%modules%waveguides%scl (matflt_type) (7.9.1.1.12)
plasmaedge (1083)	antennas%antenna_lh%plasmaedge (plasmaedge) (7.9.1.1.174)
npoints (1199)	antennas%antenna_lh%plasmaedge%npoints (vecint_type) (7.9.1.1.15)
distance (1199)	antennas%antenna_lh%plasmaedge%distance (matflt_type) (7.9.1.1.12)
density (1199)	antennas%antenna_lh%plasmaedge%density (matflt_type) (7.9.1.1.12)
beam (1083)	antennas%antenna_lh%beam (rf_beam) (7.9.1.1.209)
spot (1234)	antennas%antenna_lh%beam%spot (spot) (7.9.1.1.257)
waist (1282)	antennas%antenna_lh%beam%spot%waist (matflt_type) (7.9.1.1.12)
angle (1282)	antennas%antenna_lh%beam%spot%angle (vecflt_type) (7.9.1.1.14)
phaseellipse (1234)	antennas%antenna_lh%beam%phaseellipse (phaseellipse) (7.9.1.1.173)
invcurvrad (1198)	antennas%antenna_lh%beam%phaseellipse%invcurvrad (matflt_type) (7.9.1.1.12)
angle (1198)	antennas%antenna_lh%beam%phaseellipse%angle (vecflt_type) (7.9.1.1.14)
codeparam (1046)	antennas%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	antennas%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	antennas%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	antennas%codeparam%parameters (string) (7.9.1.1.4)

output_diag (1097)	antennas%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	antennas%codeparam%output_flag (integer) (7.9.1.1.3)
time (1046)	antennas%time (float) (7.9.1.1.2)

7.9.1.2.4 coredelta

datainfo (1047)	coredelta%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coredelta%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coredelta%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coredelta%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coredelta%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coredelta%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coredelta%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coredelta%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coredelta%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	coredelta%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coredelta%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	coredelta%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	coredelta%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	coredelta%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coredelta%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coredelta%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coredelta%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1047)	coredelta%composition (composition) (7.9.1.1.74)
amn (1099)	coredelta%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	coredelta%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	coredelta%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	coredelta%composition%imp_flag (vecint_type) (7.9.1.1.15)
rho_tor (1047)	coredelta%rho_tor (vecflt_type) (7.9.1.1.14)
rho_tor_norm (1047)	coredelta%rho_tor_norm (vecflt_type) (7.9.1.1.14)
delta_psi (1047)	coredelta%delta_psi (vecflt_type) (7.9.1.1.14)
delta_te (1047)	coredelta%delta_te (vecflt_type) (7.9.1.1.14)
delta_ti (1047)	coredelta%delta_ti (matflt_type) (7.9.1.1.12)
delta_tz (1047)	coredelta%delta_tz (array3dflt_type) (7.9.1.1.6)
delta_ne (1047)	coredelta%delta_ne (vecflt_type) (7.9.1.1.14)
delta_ni (1047)	coredelta%delta_ni (matflt_type) (7.9.1.1.12)
delta_nz (1047)	coredelta%delta_nz (array3dflt_type) (7.9.1.1.6)
delta_vtor (1047)	coredelta%delta_vtor (matflt_type) (7.9.1.1.12)
codeparam (1047)	coredelta%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coredelta%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coredelta%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coredelta%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coredelta%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coredelta%codeparam%output_flag (integer) (7.9.1.1.3)
time (1047)	coredelta%time (float) (7.9.1.1.2)

7.9.1.2.5 coreimpur

datainfo (1048)	coreimpur%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coreimpur%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coreimpur%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coreimpur%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coreimpur%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coreimpur%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coreimpur%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coreimpur%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coreimpur%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	coreimpur%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coreimpur%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	coreimpur%datainfo%putinfo (putinfo) (7.9.1.1.184)

putmethod (1209)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coreimpur%datainfo%putinfo%rights (string) (7.9.1.1.4)
rho_tor_norm (1048)	coreimpur%rho_tor_norm (vecflt_type) (7.9.1.1.14)
rho_tor (1048)	coreimpur%rho_tor (vecflt_type) (7.9.1.1.14)
source (1048)	coreimpur%source (vecstring_type) (7.9.1.1.16)
flag (1048)	coreimpur%flag (vecint_type) (7.9.1.1.15)
desc_impur (1048)	coreimpur%desc_impur (desc_impur) (7.9.1.1.91)
amn (1116)	coreimpur%desc_impur%amn (vecflt_type) (7.9.1.1.14)
zn (1116)	coreimpur%desc_impur%zn (vecint_type) (7.9.1.1.15)
i_ion (1116)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.1.1.15)
nzimp (1116)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.1.1.15)
zmin (1116)	coreimpur%desc_impur%zmin (matint_type) (7.9.1.1.13)
zmax (1116)	coreimpur%desc_impur%zmax (matint_type) (7.9.1.1.13)
z (1048)	coreimpur%z (array3dflt_type) (7.9.1.1.6)
zsq (1048)	coreimpur%zsq (array3dflt_type) (7.9.1.1.6)
nz (1048)	coreimpur%nz (array3dflt_type) (7.9.1.1.6)
source_term (1048)	coreimpur%source_term (sourceimp) (7.9.1.1.253)
value (1278)	coreimpur%source_term%value (array3dflt_type) (7.9.1.1.6)
integral (1278)	coreimpur%source_term%integral (array3dflt_type) (7.9.1.1.6)
source (1278)	coreimpur%source_term%source (vecstring_type) (7.9.1.1.16)
boundary (1048)	coreimpur%boundary (boundaryimp) (7.9.1.1.69)
value (1094)	coreimpur%boundary%value (array3dflt_type) (7.9.1.1.6)
source (1094)	coreimpur%boundary%source (vecstring_type) (7.9.1.1.16)
type (1094)	coreimpur%boundary%type (matint_type) (7.9.1.1.13)
rho (1094)	coreimpur%boundary%rho (matflt_type) (7.9.1.1.12)
codeparam (1094)	coreimpur%boundary%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreimpur%boundary%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreimpur%boundary%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreimpur%boundary%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreimpur%boundary%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreimpur%boundary%codeparam%output_flag (integer) (7.9.1.1.3)
transp_coef (1048)	coreimpur%transp_coef (coretransimp) (7.9.1.1.86)
diff (1111)	coreimpur%transp_coef%diff (array3dflt_type) (7.9.1.1.6)
vconv (1111)	coreimpur%transp_coef%vconv (array3dflt_type) (7.9.1.1.6)
source (1111)	coreimpur%transp_coef%source (vecstring_type) (7.9.1.1.16)
flux (1048)	coreimpur%flux (fluximp) (7.9.1.1.134)
flux_dv (1159)	coreimpur%flux%flux_dv (array3dflt_type) (7.9.1.1.6)
flux_interp (1159)	coreimpur%flux%flux_interp (array3dflt_type) (7.9.1.1.6)
time_deriv (1048)	coreimpur%time_deriv (array3dflt_type) (7.9.1.1.6)
atomic_data (1048)	coreimpur%atomic_data (vecstring_type) (7.9.1.1.16)
time (1048)	coreimpur%time (float) (7.9.1.1.2)
codeparam (1048)	coreimpur%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreimpur%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreimpur%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreimpur%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreimpur%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreimpur%codeparam%output_flag (integer) (7.9.1.1.3)

7.9.1.2.6 coreneutrals

datainfo (1049)	coreneutrals%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coreneutrals%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coreneutrals%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coreneutrals%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coreneutrals%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coreneutrals%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coreneutrals%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coreneutrals%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coreneutrals%datainfo%whatref%machine (string) (7.9.1.1.4)

shot (1317)	coreneutrals%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coreneutrals%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	coreneutrals%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coreneutrals%datainfo%putinfo%rights (string) (7.9.1.1.4)
rho_tor (1049)	coreneutrals%rho_tor (vecflt_type) (7.9.1.1.14)
rho_tor_norm (1049)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.1.1.14)
composition (1049)	coreneutrals%composition (composition_neutrals) (7.9.1.1.75)
atomlist (1100)	coreneutrals%composition%atomlist (atomlist) (7.9.1.1.61)
amn (1086)	coreneutrals%composition%atomlist%amn (vecflt_type) (7.9.1.1.14)
zn (1086)	coreneutrals%composition%atomlist%zn (vecflt_type) (7.9.1.1.14)
neutrallist (1100)	coreneutrals%composition%neutrallist (neutrallist) (7.9.1.1.156)
ncomp (1181)	coreneutrals%composition%neutrallist%ncomp (vecint_type) (7.9.1.1.15)
tatm (1181)	coreneutrals%composition%neutrallist%tatm (matint_type) (7.9.1.1.13)
multatm (1181)	coreneutrals%composition%neutrallist%multatm (matint_type) (7.9.1.1.13)
typelist (1100)	coreneutrals%composition%typelist (typelist) (7.9.1.1.284)
ntype (1309)	coreneutrals%composition%typelist%ntype (vecint_type) (7.9.1.1.15)
type (1309)	coreneutrals%composition%typelist%type (matint_type) (7.9.1.1.13)
profiles (1049)	coreneutrals%profiles (profiles_neutrals) (7.9.1.1.181)
n0 (1206)	coreneutrals%profiles%n0 (corefieldneutral) (7.9.1.1.79)
value (1104)	coreneutrals%profiles%n0%value (array3dflt_type) (7.9.1.1.6)
flux (1104)	coreneutrals%profiles%n0%flux (array3dflt_type) (7.9.1.1.6)
boundary (1104)	coreneutrals%profiles%n0%boundary (boundary_neutrals) (7.9.1.1.67)
value (1092)	coreneutrals%profiles%n0%boundary%value (array3dflt_type) (7.9.1.1.6)
type (1092)	coreneutrals%profiles%n0%boundary%type (matint_type) (7.9.1.1.13)
rho_tor (1092)	coreneutrals%profiles%n0%boundary%rho_tor (matint_type) (7.9.1.1.13)
t0 (1206)	coreneutrals%profiles%t0 (corefieldneutrale) (7.9.1.1.80)
value (1105)	coreneutrals%profiles%t0%value (array3dflt_type) (7.9.1.1.6)
flux (1105)	coreneutrals%profiles%t0%flux (array3dflt_type) (7.9.1.1.6)
boundary (1105)	coreneutrals%profiles%t0%boundary (boundary_neutrals) (7.9.1.1.67)
value (1092)	coreneutrals%profiles%t0%boundary%value (array3dflt_type) (7.9.1.1.6)
type (1092)	coreneutrals%profiles%t0%boundary%type (matint_type) (7.9.1.1.13)
rho_tor (1092)	coreneutrals%profiles%t0%boundary%rho_tor (matint_type) (7.9.1.1.13)
v0 (1206)	coreneutrals%profiles%v0 (corefieldneutralv0) (7.9.1.1.82)
toroidal (1107)	coreneutrals%profiles%v0%toroidal (corefieldneutralv) (7.9.1.1.81)
value (1106)	coreneutrals%profiles%v0%toroidal%value (array3dflt_type) (7.9.1.1.6)
boundary (1106)	coreneutrals%profiles%v0%toroidal%boundary (boundary_neutrals) (7.9.1.1.67)
value (1092)	coreneutrals%profiles%v0%toroidal%boundary%value (array3dflt_type) (7.9.1.1.6)
type (1092)	coreneutrals%profiles%v0%toroidal%boundary%type (matint_type) (7.9.1.1.13)
rho_tor (1092)	coreneutrals%profiles%v0%toroidal%boundary%rho_tor (matint_type) (7.9.1.1.13)
poloidal (1107)	coreneutrals%profiles%v0%poloidal (corefieldneutralv) (7.9.1.1.81)
value (1106)	coreneutrals%profiles%v0%poloidal%value (array3dflt_type) (7.9.1.1.6)
boundary (1106)	coreneutrals%profiles%v0%poloidal%boundary (boundary_neutrals) (7.9.1.1.67)
value (1092)	coreneutrals%profiles%v0%poloidal%boundary%value (array3dflt_type) (7.9.1.1.6)
type (1092)	coreneutrals%profiles%v0%poloidal%boundary%type (matint_type) (7.9.1.1.13)
rho_tor (1092)	coreneutrals%profiles%v0%poloidal%boundary%rho_tor (matint_type) (7.9.1.1.13)
radial (1107)	coreneutrals%profiles%v0%radial (corefieldneutralv) (7.9.1.1.81)
value (1106)	coreneutrals%profiles%v0%radial%value (array3dflt_type) (7.9.1.1.6)
boundary (1106)	coreneutrals%profiles%v0%radial%boundary (boundary_neutrals) (7.9.1.1.67)
value (1092)	coreneutrals%profiles%v0%radial%boundary%value (array3dflt_type) (7.9.1.1.6)
type (1092)	coreneutrals%profiles%v0%radial%boundary%type (matint_type) (7.9.1.1.13)
rho_tor (1092)	coreneutrals%profiles%v0%radial%boundary%rho_tor (matint_type) (7.9.1.1.13)
prad0 (1206)	coreneutrals%profiles%prad0 (matflt_type) (7.9.1.1.12)
coefficients (1049)	coreneutrals%coefficients (coefficients_neutrals) (7.9.1.1.73)
recycling (1098)	coreneutrals%coefficients%recycling (recycling_neutrals) (7.9.1.1.186)
particles (1211)	coreneutrals%coefficients%recycling%particles (matflt_type) (7.9.1.1.12)
energy (1211)	coreneutrals%coefficients%recycling%energy (matflt_type) (7.9.1.1.12)
sputtering (1098)	coreneutrals%coefficients%sputtering (sputtering_neutrals) (7.9.1.1.258)

physical (1283)	coreneutrals%coefficients%sputtering%physical (matflt_type) (7.9.1.1.12)
chemical (1283)	coreneutrals%coefficients%sputtering%chemical (matflt_type) (7.9.1.1.12)
codeparam (1049)	coreneutrals%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreneutrals%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreneutrals%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreneutrals%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreneutrals%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreneutrals%codeparam%output_flag (integer) (7.9.1.1.3)
time (1049)	coreneutrals%time (float) (7.9.1.1.2)

7.9.1.2.7 coreprof

datainfo (1050)	coreprof%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coreprof%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coreprof%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coreprof%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coreprof%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coreprof%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coreprof%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coreprof%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coreprof%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	coreprof%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coreprof%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	coreprof%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	coreprof%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	coreprof%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coreprof%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coreprof%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coreprof%datainfo%putinfo%rights (string) (7.9.1.1.4)
rho_tor_norm (1050)	coreprof%rho_tor_norm (vecflt_type) (7.9.1.1.14)
rho_tor (1050)	coreprof%rho_tor (vecflt_type) (7.9.1.1.14)
drho_dt (1050)	coreprof%drho_dt (vecflt_type) (7.9.1.1.14)
toroid_field (1050)	coreprof%toroid_field (toroid_field) (7.9.1.1.276)
b0 (1301)	coreprof%toroid_field%b0 (float) (7.9.1.1.2)
b0prime (1301)	coreprof%toroid_field%b0prime (float) (7.9.1.1.2)
r0 (1301)	coreprof%toroid_field%r0 (float) (7.9.1.1.2)
time (1301)	coreprof%toroid_field%time (float) (7.9.1.1.2)
composition (1050)	coreprof%composition (composition) (7.9.1.1.74)
amn (1099)	coreprof%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	coreprof%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	coreprof%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	coreprof%composition%imp_flag (vecint_type) (7.9.1.1.15)
psi (1050)	coreprof%psi (psi) (7.9.1.1.183)
value (1208)	coreprof%psi%value (vecflt_type) (7.9.1.1.14)
source (1208)	coreprof%psi%source (string) (7.9.1.1.4)
flag (1208)	coreprof%psi%flag (integer) (7.9.1.1.3)
boundary (1208)	coreprof%psi%boundary (boundary) (7.9.1.1.66)
value (1091)	coreprof%psi%boundary%value (vecflt_type) (7.9.1.1.14)
source (1091)	coreprof%psi%boundary%source (string) (7.9.1.1.4)
type (1091)	coreprof%psi%boundary%type (integer) (7.9.1.1.3)
rho (1091)	coreprof%psi%boundary%rho (float) (7.9.1.1.2)
codeparam (1091)	coreprof%psi%boundary%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%psi%boundary%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.1.1.3)
jni (1208)	coreprof%psi%jni (jni) (7.9.1.1.145)
value (1170)	coreprof%psi%jni%value (vecflt_type) (7.9.1.1.14)
integral (1170)	coreprof%psi%jni%integral (vecflt_type) (7.9.1.1.14)
source (1170)	coreprof%psi%jni%source (string) (7.9.1.1.4)

sigma_par (1208)	coreprof%psi%sigma_par (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%psi%sigma_par%source (string) (7.9.1.1.4)
codeparam (1208)	coreprof%psi%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%psi%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%psi%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%psi%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%psi%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%psi%codeparam%output_flag (integer) (7.9.1.1.3)
te (1050)	coreprof%te (corefield) (7.9.1.1.77)
value (1102)	coreprof%te%value (vecflt_type) (7.9.1.1.14)
source (1102)	coreprof%te%source (string) (7.9.1.1.4)
flag (1102)	coreprof%te%flag (integer) (7.9.1.1.3)
boundary (1102)	coreprof%te%boundary (boundaryel) (7.9.1.1.68)
value (1093)	coreprof%te%boundary%value (vecflt_type) (7.9.1.1.14)
source (1093)	coreprof%te%boundary%source (string) (7.9.1.1.4)
type (1093)	coreprof%te%boundary%type (integer) (7.9.1.1.3)
rho_tor (1093)	coreprof%te%boundary%rho_tor (float) (7.9.1.1.2)
source_term (1102)	coreprof%te%source_term (sourceel) (7.9.1.1.252)
value (1277)	coreprof%te%source_term%value (vecflt_type) (7.9.1.1.14)
integral (1277)	coreprof%te%source_term%integral (vecflt_type) (7.9.1.1.14)
source (1277)	coreprof%te%source_term%source (string) (7.9.1.1.4)
transp_coef (1102)	coreprof%te%transp_coef (coretransel) (7.9.1.1.85)
diff (1110)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.1.1.14)
vconv (1110)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.1.1.14)
source (1110)	coreprof%te%transp_coef%source (string) (7.9.1.1.4)
flux (1102)	coreprof%te%flux (fluxel) (7.9.1.1.133)
flux_dv (1158)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.1.1.14)
flux_interp (1158)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.1.1.14)
time_deriv (1102)	coreprof%te%time_deriv (vecflt_type) (7.9.1.1.14)
codeparam (1102)	coreprof%te%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%te%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%te%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%te%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%te%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%te%codeparam%output_flag (integer) (7.9.1.1.3)
ti (1050)	coreprof%ti (corefieldion) (7.9.1.1.78)
value (1103)	coreprof%ti%value (matflt_type) (7.9.1.1.12)
source (1103)	coreprof%ti%source (vecstring_type) (7.9.1.1.16)
flag (1103)	coreprof%ti%flag (vecint_type) (7.9.1.1.15)
boundary (1103)	coreprof%ti%boundary (boundaryion) (7.9.1.1.70)
value (1095)	coreprof%ti%boundary%value (matflt_type) (7.9.1.1.12)
source (1095)	coreprof%ti%boundary%source (vecstring_type) (7.9.1.1.16)
type (1095)	coreprof%ti%boundary%type (vecint_type) (7.9.1.1.15)
rho_tor (1095)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.1.1.14)
source_term (1103)	coreprof%ti%source_term (sourceion) (7.9.1.1.254)
value (1279)	coreprof%ti%source_term%value (matflt_type) (7.9.1.1.12)
integral (1279)	coreprof%ti%source_term%integral (matflt_type) (7.9.1.1.12)
source (1279)	coreprof%ti%source_term%source (vecstring_type) (7.9.1.1.16)
transp_coef (1103)	coreprof%ti%transp_coef (coretransion) (7.9.1.1.87)
diff (1112)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.1.1.12)
vconv (1112)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.1.1.12)
source (1112)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.1.1.16)
flux (1103)	coreprof%ti%flux (fluxion) (7.9.1.1.135)
flux_dv (1160)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.1.1.12)
flux_interp (1160)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.1.1.12)
time_deriv (1103)	coreprof%ti%time_deriv (matflt_type) (7.9.1.1.12)
codeparam (1103)	coreprof%ti%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%ti%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%ti%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%ti%codeparam%parameters (string) (7.9.1.1.4)

output_diag (1097)	coreprof%ti%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%ti%codeparam%output_flag (integer) (7.9.1.1.3)
ne (1050)	coreprof%ne (corefield) (7.9.1.1.77)
value (1102)	coreprof%ne%value (vecflt_type) (7.9.1.1.14)
source (1102)	coreprof%ne%source (string) (7.9.1.1.4)
flag (1102)	coreprof%ne%flag (integer) (7.9.1.1.3)
boundary (1102)	coreprof%ne%boundary (boundaryel) (7.9.1.1.68)
value (1093)	coreprof%ne%boundary%value (vecflt_type) (7.9.1.1.14)
source (1093)	coreprof%ne%boundary%source (string) (7.9.1.1.4)
type (1093)	coreprof%ne%boundary%type (integer) (7.9.1.1.3)
rho_tor (1093)	coreprof%ne%boundary%rho_tor (float) (7.9.1.1.2)
source_term (1102)	coreprof%ne%source_term (sourceel) (7.9.1.1.252)
value (1277)	coreprof%ne%source_term%value (vecflt_type) (7.9.1.1.14)
integral (1277)	coreprof%ne%source_term%integral (vecflt_type) (7.9.1.1.14)
source (1277)	coreprof%ne%source_term%source (string) (7.9.1.1.4)
transp_coef (1102)	coreprof%ne%transp_coef (coretransel) (7.9.1.1.85)
diff (1110)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.1.1.14)
vconv (1110)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.1.1.14)
source (1110)	coreprof%ne%transp_coef%source (string) (7.9.1.1.4)
flux (1102)	coreprof%ne%flux (fluxel) (7.9.1.1.133)
flux_dv (1158)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.1.1.14)
flux_interp (1158)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.1.1.14)
time_deriv (1102)	coreprof%ne%time_deriv (vecflt_type) (7.9.1.1.14)
codeparam (1102)	coreprof%ne%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%ne%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%ne%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%ne%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%ne%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%ne%codeparam%output_flag (integer) (7.9.1.1.3)
ni (1050)	coreprof%ni (corefieldion) (7.9.1.1.78)
value (1103)	coreprof%ni%value (matflt_type) (7.9.1.1.12)
source (1103)	coreprof%ni%source (vecstring_type) (7.9.1.1.16)
flag (1103)	coreprof%ni%flag (vecint_type) (7.9.1.1.15)
boundary (1103)	coreprof%ni%boundary (boundaryion) (7.9.1.1.70)
value (1095)	coreprof%ni%boundary%value (matflt_type) (7.9.1.1.12)
source (1095)	coreprof%ni%boundary%source (vecstring_type) (7.9.1.1.16)
type (1095)	coreprof%ni%boundary%type (vecint_type) (7.9.1.1.15)
rho_tor (1095)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.1.1.14)
source_term (1103)	coreprof%ni%source_term (sourceion) (7.9.1.1.254)
value (1279)	coreprof%ni%source_term%value (matflt_type) (7.9.1.1.12)
integral (1279)	coreprof%ni%source_term%integral (matflt_type) (7.9.1.1.12)
source (1279)	coreprof%ni%source_term%source (vecstring_type) (7.9.1.1.16)
transp_coef (1103)	coreprof%ni%transp_coef (coretransion) (7.9.1.1.87)
diff (1112)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.1.1.12)
vconv (1112)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.1.1.12)
source (1112)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.1.1.16)
flux (1103)	coreprof%ni%flux (fluxion) (7.9.1.1.135)
flux_dv (1160)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.1.1.12)
flux_interp (1160)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.1.1.12)
time_deriv (1103)	coreprof%ni%time_deriv (matflt_type) (7.9.1.1.12)
codeparam (1103)	coreprof%ni%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%ni%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%ni%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%ni%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%ni%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%ni%codeparam%output_flag (integer) (7.9.1.1.3)
vtor (1050)	coreprof%vtor (corefieldion) (7.9.1.1.78)
value (1103)	coreprof%vtor%value (matflt_type) (7.9.1.1.12)
source (1103)	coreprof%vtor%source (vecstring_type) (7.9.1.1.16)
flag (1103)	coreprof%vtor%flag (vecint_type) (7.9.1.1.15)
boundary (1103)	coreprof%vtor%boundary (boundaryion) (7.9.1.1.70)

value (1095)	coreprof%vtor%boundary%value (matflt_type) (7.9.1.1.12)
source (1095)	coreprof%vtor%boundary%source (vecstring_type) (7.9.1.1.16)
type (1095)	coreprof%vtor%boundary%type (vecint_type) (7.9.1.1.15)
rho_tor (1095)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.1.1.14)
source_term (1103)	coreprof%vtor%source_term (sourceion) (7.9.1.1.254)
value (1279)	coreprof%vtor%source_term%value (matflt_type) (7.9.1.1.12)
integral (1279)	coreprof%vtor%source_term%integral (matflt_type) (7.9.1.1.12)
source (1279)	coreprof%vtor%source_term%source (vecstring_type) (7.9.1.1.16)
transp_coef (1103)	coreprof%vtor%transp_coef (coretransion) (7.9.1.1.87)
diff (1112)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.1.1.12)
vconv (1112)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.1.1.12)
source (1112)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.1.1.16)
flux (1103)	coreprof%vtor%flux (fluxion) (7.9.1.1.135)
flux_dv (1160)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.1.1.12)
flux_interp (1160)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.1.1.12)
time_deriv (1103)	coreprof%vtor%time_deriv (matflt_type) (7.9.1.1.12)
codeparam (1103)	coreprof%vtor%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%vtor%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%vtor%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%vtor%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%vtor%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%vtor%codeparam%output_flag (integer) (7.9.1.1.3)
profiles1d (1050)	coreprof%profiles1d (profiles1d) (7.9.1.1.178)
pe (1203)	coreprof%profiles1d%pe (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%pe%source (string) (7.9.1.1.4)
pi (1203)	coreprof%profiles1d%pi (coreprofion) (7.9.1.1.84)
value (1109)	coreprof%profiles1d%pi%value (matflt_type) (7.9.1.1.12)
source (1109)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.1.1.16)
pr_th (1203)	coreprof%profiles1d%pr_th (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%pr_th%source (string) (7.9.1.1.4)
pr_perp (1203)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%pr_perp%source (string) (7.9.1.1.4)
pr_parallel (1203)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%pr_parallel%source (string) (7.9.1.1.4)
jtot (1203)	coreprof%profiles1d%jtot (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%jtot%source (string) (7.9.1.1.4)
jni (1203)	coreprof%profiles1d%jni (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%jni%source (string) (7.9.1.1.4)
joh (1203)	coreprof%profiles1d%joh (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%joh%source (string) (7.9.1.1.4)
vloop (1203)	coreprof%profiles1d%vloop (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%vloop%source (string) (7.9.1.1.4)
sigmapar (1203)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%sigmapar%source (string) (7.9.1.1.4)
qoh (1203)	coreprof%profiles1d%qoh (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%qoh%source (string) (7.9.1.1.4)
eparallel (1203)	coreprof%profiles1d%eparallel (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%eparallel%source (string) (7.9.1.1.4)
e_b (1203)	coreprof%profiles1d%e_b (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.1.1.14)

source (1108)	coreprof%profiles1d%e_b%source (string) (7.9.1.1.4)
q (1203)	coreprof%profiles1d%q (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%q%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%q%source (string) (7.9.1.1.4)
shear (1203)	coreprof%profiles1d%shear (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%shear%source (string) (7.9.1.1.4)
ns (1203)	coreprof%profiles1d%ns (coreprofion) (7.9.1.1.84)
value (1109)	coreprof%profiles1d%ns%value (matflt_type) (7.9.1.1.12)
source (1109)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.1.1.16)
mtor (1203)	coreprof%profiles1d%mtor (coreprofion) (7.9.1.1.84)
value (1109)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.1.1.12)
source (1109)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.1.1.16)
wtor (1203)	coreprof%profiles1d%wtor (coreprofion) (7.9.1.1.84)
value (1109)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.1.1.12)
source (1109)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.1.1.16)
zeff (1203)	coreprof%profiles1d%zeff (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%zeff%source (string) (7.9.1.1.4)
bpol (1203)	coreprof%profiles1d%bpol (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%bpol%source (string) (7.9.1.1.4)
dpsidt (1203)	coreprof%profiles1d%dpsidt (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%dpsidt%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%dpsidt%source (string) (7.9.1.1.4)
dpsidt_phi (1203)	coreprof%profiles1d%dpsidt_phi (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%dpsidt_phi%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%dpsidt_phi%source (string) (7.9.1.1.4)
dvprimedt (1203)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.1.1.83)
value (1108)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.1.1.14)
source (1108)	coreprof%profiles1d%dvprimedt%source (string) (7.9.1.1.4)
globalparam (1050)	coreprof%globalparam (globalparam) (7.9.1.1.139)
current_tot (1164)	coreprof%globalparam%current_tot (float) (7.9.1.1.2)
current_bnd (1164)	coreprof%globalparam%current_bnd (float) (7.9.1.1.2)
vloop (1164)	coreprof%globalparam%vloop (float) (7.9.1.1.2)
li (1164)	coreprof%globalparam%li (float) (7.9.1.1.2)
beta_tor (1164)	coreprof%globalparam%beta_tor (float) (7.9.1.1.2)
beta_normal (1164)	coreprof%globalparam%beta_normal (float) (7.9.1.1.2)
beta_pol (1164)	coreprof%globalparam%beta_pol (float) (7.9.1.1.2)
w_dia (1164)	coreprof%globalparam%w_dia (float) (7.9.1.1.2)
codeparam (1050)	coreprof%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coreprof%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coreprof%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coreprof%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coreprof%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coreprof%codeparam%output_flag (integer) (7.9.1.1.3)
time (1050)	coreprof%time (float) (7.9.1.1.2)

7.9.1.2.8 coresource

datainfo (1051)	coresource%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coresource%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coresource%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coresource%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coresource%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coresource%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coresource%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coresource%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coresource%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	coresource%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coresource%datainfo%whatref%run (integer) (7.9.1.1.3)

occurrence (1317)	coresource%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	coresource%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	coresource%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coresource%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coresource%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coresource%datainfo%putinfo%rights (string) (7.9.1.1.4)
rho_tor (1051)	coresource%rho_tor (vecflt_type) (7.9.1.1.14)
rho_tor_norm (1051)	coresource%rho_tor_norm (vecflt_type) (7.9.1.1.14)
composition (1051)	coresource%composition (composition) (7.9.1.1.74)
amn (1099)	coresource%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	coresource%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	coresource%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	coresource%composition%imp_flag (vecint_type) (7.9.1.1.15)
toroid_field (1051)	coresource%toroid_field (b0r0) (7.9.1.1.62)
r0 (1087)	coresource%toroid_field%r0 (float) (7.9.1.1.2)
b0 (1087)	coresource%toroid_field%b0 (float) (7.9.1.1.2)
j (1051)	coresource%j (vecflt_type) (7.9.1.1.14)
sigma (1051)	coresource%sigma (vecflt_type) (7.9.1.1.14)
si (1051)	coresource%si (source_ion) (7.9.1.1.250)
exp (1275)	coresource%si%exp (matflt_type) (7.9.1.1.12)
imp (1275)	coresource%si%imp (matflt_type) (7.9.1.1.12)
se (1051)	coresource%se (source_el) (7.9.1.1.248)
exp (1273)	coresource%se%exp (vecflt_type) (7.9.1.1.14)
imp (1273)	coresource%se%imp (vecflt_type) (7.9.1.1.14)
sz (1051)	coresource%sz (source_imp) (7.9.1.1.249)
exp (1274)	coresource%sz%exp (array3dflt_type) (7.9.1.1.6)
imp (1274)	coresource%sz%imp (array3dflt_type) (7.9.1.1.6)
qi (1051)	coresource%qi (source_ion) (7.9.1.1.250)
exp (1275)	coresource%qi%exp (matflt_type) (7.9.1.1.12)
imp (1275)	coresource%qi%imp (matflt_type) (7.9.1.1.12)
qe (1051)	coresource%qe (source_el) (7.9.1.1.248)
exp (1273)	coresource%qe%exp (vecflt_type) (7.9.1.1.14)
imp (1273)	coresource%qe%imp (vecflt_type) (7.9.1.1.14)
qz (1051)	coresource%qz (source_imp) (7.9.1.1.249)
exp (1274)	coresource%qz%exp (array3dflt_type) (7.9.1.1.6)
imp (1274)	coresource%qz%imp (array3dflt_type) (7.9.1.1.6)
ui (1051)	coresource%ui (source_ion) (7.9.1.1.250)
exp (1275)	coresource%ui%exp (matflt_type) (7.9.1.1.12)
imp (1275)	coresource%ui%imp (matflt_type) (7.9.1.1.12)
codeparam (1051)	coresource%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coresource%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coresource%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coresource%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coresource%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coresource%codeparam%output_flag (integer) (7.9.1.1.3)
time (1051)	coresource%time (float) (7.9.1.1.2)

7.9.1.2.9 coretransp

datainfo (1052)	coretransp%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	coretransp%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	coretransp%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	coretransp%datainfo%source (string) (7.9.1.1.4)
comment (1115)	coretransp%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	coretransp%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	coretransp%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	coretransp%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	coretransp%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	coretransp%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	coretransp%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	coretransp%datainfo%whatref%occurrence (integer) (7.9.1.1.3)

putinfo (1115)	coretransp%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	coretransp%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	coretransp%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	coretransp%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	coretransp%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1052)	coretransp%composition (composition) (7.9.1.1.74)
amn (1099)	coretransp%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	coretransp%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	coretransp%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	coretransp%composition%imp_flag (vecint_type) (7.9.1.1.15)
rho_tor_norm (1052)	coretransp%rho_tor_norm (vecflt_type) (7.9.1.1.14)
rho_tor (1052)	coretransp%rho_tor (vecflt_type) (7.9.1.1.14)
sigma (1052)	coretransp%sigma (vecflt_type) (7.9.1.1.14)
ni_transp (1052)	coretransp%ni_transp (ni_transp) (7.9.1.1.157)
diff_eff (1182)	coretransp%ni_transp%diff_eff (array3dflt_type) (7.9.1.1.6)
vconv_eff (1182)	coretransp%ni_transp%vconv_eff (array3dflt_type) (7.9.1.1.6)
flux (1182)	coretransp%ni_transp%flux (matflt_type) (7.9.1.1.12)
off_diagonal (1182)	coretransp%ni_transp%off_diagonal (offdiagion) (7.9.1.1.159)
d_ni (1184)	coretransp%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.1.1.6)
d_ti (1184)	coretransp%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.1.1.6)
d_ne (1184)	coretransp%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.1.1.12)
d_te (1184)	coretransp%ni_transp%off_diagonal%d_te (matflt_type) (7.9.1.1.12)
d_epar (1184)	coretransp%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.1.1.12)
d_mtor (1184)	coretransp%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.1.1.12)
flag (1182)	coretransp%ni_transp%flag (integer) (7.9.1.1.3)
ne_transp (1052)	coretransp%ne_transp (ne_transp) (7.9.1.1.155)
diff_eff (1180)	coretransp%ne_transp%diff_eff (matflt_type) (7.9.1.1.12)
vconv_eff (1180)	coretransp%ne_transp%vconv_eff (matflt_type) (7.9.1.1.12)
flux (1180)	coretransp%ne_transp%flux (vecflt_type) (7.9.1.1.14)
off_diagonal (1180)	coretransp%ne_transp%off_diagonal (offdiagel) (7.9.1.1.158)
d_ni (1183)	coretransp%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.1.1.12)
d_ti (1183)	coretransp%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.1.1.12)
d_ne (1183)	coretransp%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.1.1.14)
d_te (1183)	coretransp%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.1.1.14)
d_epar (1183)	coretransp%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.1.1.14)
d_mtor (1183)	coretransp%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.1.1.14)
flag (1180)	coretransp%ne_transp%flag (integer) (7.9.1.1.3)
nz_transp (1052)	coretransp%nz_transp (transcoefimp) (7.9.1.1.278)
diff_eff (1303)	coretransp%nz_transp%diff_eff (array3dflt_type) (7.9.1.1.6)
vconv_eff (1303)	coretransp%nz_transp%vconv_eff (array3dflt_type) (7.9.1.1.6)
exchange (1303)	coretransp%nz_transp%exchange (array3dflt_type) (7.9.1.1.6)
flux (1303)	coretransp%nz_transp%flux (array3dflt_type) (7.9.1.1.6)
flag (1303)	coretransp%nz_transp%flag (integer) (7.9.1.1.3)
ti_transp (1052)	coretransp%ti_transp (transcoefion) (7.9.1.1.279)
diff_eff (1304)	coretransp%ti_transp%diff_eff (matflt_type) (7.9.1.1.12)
vconv_eff (1304)	coretransp%ti_transp%vconv_eff (matflt_type) (7.9.1.1.12)
exchange (1304)	coretransp%ti_transp%exchange (matflt_type) (7.9.1.1.12)
qgi (1304)	coretransp%ti_transp%qgi (matflt_type) (7.9.1.1.12)
flux (1304)	coretransp%ti_transp%flux (matflt_type) (7.9.1.1.12)
off_diagonal (1304)	coretransp%ti_transp%off_diagonal (offdiagion) (7.9.1.1.159)
d_ni (1184)	coretransp%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.1.1.6)
d_ti (1184)	coretransp%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.1.1.6)
d_ne (1184)	coretransp%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.1.1.12)
d_te (1184)	coretransp%ti_transp%off_diagonal%d_te (matflt_type) (7.9.1.1.12)
d_epar (1184)	coretransp%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.1.1.12)
d_mtor (1184)	coretransp%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.1.1.12)
flag (1304)	coretransp%ti_transp%flag (integer) (7.9.1.1.3)
te_transp (1052)	coretransp%te_transp (transcoefel) (7.9.1.1.277)
diff_eff (1302)	coretransp%te_transp%diff_eff (vecflt_type) (7.9.1.1.14)
vconv_eff (1302)	coretransp%te_transp%vconv_eff (vecflt_type) (7.9.1.1.14)
flux (1302)	coretransp%te_transp%flux (vecflt_type) (7.9.1.1.14)

off_diagonal (1302)	coretransp%te_transp%off_diagonal (offdiagel) (7.9.1.1.158)
d_ni (1183)	coretransp%te_transp%off_diagonal%d_ni (matflt_type) (7.9.1.1.12)
d_ti (1183)	coretransp%te_transp%off_diagonal%d_ti (matflt_type) (7.9.1.1.12)
d_ne (1183)	coretransp%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.1.1.14)
d_te (1183)	coretransp%te_transp%off_diagonal%d_te (vecflt_type) (7.9.1.1.14)
d_epar (1183)	coretransp%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.1.1.14)
d_mtor (1183)	coretransp%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.1.1.14)
flag (1302)	coretransp%te_transp%flag (integer) (7.9.1.1.3)
tz_transp (1052)	coretransp%tz_transp (transcoefimp) (7.9.1.1.278)
diff_eff (1303)	coretransp%tz_transp%diff_eff (array3dflt_type) (7.9.1.1.6)
vconv_eff (1303)	coretransp%tz_transp%vconv_eff (array3dflt_type) (7.9.1.1.6)
exchange (1303)	coretransp%tz_transp%exchange (array3dflt_type) (7.9.1.1.6)
flux (1303)	coretransp%tz_transp%flux (array3dflt_type) (7.9.1.1.6)
flag (1303)	coretransp%tz_transp%flag (integer) (7.9.1.1.3)
vtor_transp (1052)	coretransp%vtor_transp (transcoefvtor) (7.9.1.1.280)
diff_eff (1305)	coretransp%vtor_transp%diff_eff (matflt_type) (7.9.1.1.12)
vconv_eff (1305)	coretransp%vtor_transp%vconv_eff (matflt_type) (7.9.1.1.12)
flux (1305)	coretransp%vtor_transp%flux (matflt_type) (7.9.1.1.12)
off_diagonal (1305)	coretransp%vtor_transp%off_diagonal (offdiagion) (7.9.1.1.159)
d_ni (1184)	coretransp%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.1.1.6)
d_ti (1184)	coretransp%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.1.1.6)
d_ne (1184)	coretransp%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.1.1.12)
d_te (1184)	coretransp%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.1.1.12)
d_epar (1184)	coretransp%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.1.1.12)
d_mtor (1184)	coretransp%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.1.1.12)
flag (1305)	coretransp%vtor_transp%flag (integer) (7.9.1.1.3)
codeparam (1052)	coretransp%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	coretransp%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	coretransp%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	coretransp%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	coretransp%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	coretransp%codeparam%output_flag (integer) (7.9.1.1.3)
time (1052)	coretransp%time (float) (7.9.1.1.2)

7.9.1.2.10 cxdiag

datainfo (1053)	cxdiag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	cxdiag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	cxdiag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	cxdiag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	cxdiag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	cxdiag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	cxdiag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	cxdiag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	cxdiag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	cxdiag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	cxdiag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	cxdiag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	cxdiag%datainfo%putinfo%rights (string) (7.9.1.1.4)
setup (1053)	cxdiag%setup (cxsetup) (7.9.1.1.89)
position (1114)	cxdiag%setup%position (rzphi1Dexp) (7.9.1.1.216)
r (1241)	cxdiag%setup%position%r (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%setup%position%r%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.1.1.14)
z (1241)	cxdiag%setup%position%z (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%setup%position%z%value (vecflt_type) (7.9.1.1.14)

absererror (1153)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.1.1.14)
phi (1241)	cxdiag%setup%position%phi (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.1.1.14)
measure (1053)	cxdiag%measure (cxmeasure) (7.9.1.1.88)
ti (1113)	cxdiag%measure%ti (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%measure%ti%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.1.1.14)
vtor (1113)	cxdiag%measure%vtor (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%measure%vtor%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.1.1.14)
vpol (1113)	cxdiag%measure%vpol (exp1D) (7.9.1.1.128)
value (1153)	cxdiag%measure%vpol%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.1.1.14)
time (1053)	cxdiag%time (float) (7.9.1.1.2)

7.9.1.2.11 distribution

datainfo (1054)	distribution%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	distribution%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	distribution%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	distribution%datainfo%source (string) (7.9.1.1.4)
comment (1115)	distribution%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	distribution%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	distribution%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	distribution%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	distribution%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	distribution%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	distribution%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	distribution%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	distribution%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	distribution%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	distribution%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	distribution%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	distribution%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1054)	distribution%composition (composition) (7.9.1.1.74)
amn (1099)	distribution%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	distribution%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	distribution%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	distribution%composition%imp_flag (vecint_type) (7.9.1.1.15)
calc_spec (1054)	distribution%calc_spec (vecint_type) (7.9.1.1.15)
nucl_reac (1054)	distribution%nucl_reac (dist_nucl_reac) (7.9.1.1.101)
nreacs (1126)	distribution%nucl_reac%nreacs (vecint_type) (7.9.1.1.15)
point_reac (1126)	distribution%nucl_reac%point_reac (matint_type) (7.9.1.1.13)
id_reac (1126)	distribution%nucl_reac%id_reac (matint_type) (7.9.1.1.13)
global_param (1054)	distribution%global_param (dist_glob) (7.9.1.1.97)
enrg (1122)	distribution%global_param%enrg (vecflt_type) (7.9.1.1.14)
enrg_para (1122)	distribution%global_param%enrg_para (vecflt_type) (7.9.1.1.14)
pow_coll_i (1122)	distribution%global_param%pow_coll_i (matflt_type) (7.9.1.1.12)
pow_coll_e (1122)	distribution%global_param%pow_coll_e (vecflt_type) (7.9.1.1.14)
therm_src (1122)	distribution%global_param%therm_src (dist_src_snk_tot) (7.9.1.1.113)
particles (1138)	distribution%global_param%therm_src%particles (vecflt_type) (7.9.1.1.14)
power (1138)	distribution%global_param%therm_src%power (vecflt_type) (7.9.1.1.14)
torque (1138)	distribution%global_param%therm_src%torque (vecflt_type) (7.9.1.1.14)
losses (1122)	distribution%global_param%losses (dist_glob_dist_losses) (7.9.1.1.98)
orb_loss (1123)	distribution%global_param%losses%orb_loss (dist_src_snk_tot) (7.9.1.1.113)

particles (1138)	distribution%global_param%losses%orb_loss%particles (vecflt_type) (7.9.1.1.14)
power (1138)	distribution%global_param%losses%orb_loss%power (vecflt_type) (7.9.1.1.14)
torque (1138)	distribution%global_param%losses%orb_loss%torque (vecflt_type) (7.9.1.1.14)
neutr_loss (1123)	distribution%global_param%losses%neutr_loss (dist_src_snk_tot) (7.9.1.1.113)
particles (1138)	distribution%global_param%losses%neutr_loss%particles (vecflt_type) (7.9.1.1.14)
power (1138)	distribution%global_param%losses%neutr_loss%power (vecflt_type) (7.9.1.1.14)
torque (1138)	distribution%global_param%losses%neutr_loss%torque (vecflt_type) (7.9.1.1.14)
cur_dr_tor (1122)	distribution%global_param%cur_dr_tor (vecflt_type) (7.9.1.1.14)
trq_i (1122)	distribution%global_param%trq_i (matflt_type) (7.9.1.1.12)
trq_e (1122)	distribution%global_param%trq_e (vecflt_type) (7.9.1.1.14)
trq_j_rxb (1122)	distribution%global_param%trq_j_rxb (vecflt_type) (7.9.1.1.14)
nucl_reac_th (1122)	distribution%global_param%nucl_reac_th (dist_nucl_reac_th) (7.9.1.1.103)
rate (1128)	distribution%global_param%nucl_reac_th%rate (matflt_type) (7.9.1.1.12)
power (1128)	distribution%global_param%nucl_reac_th%power (matflt_type) (7.9.1.1.12)
nucl_reac_sf (1122)	distribution%global_param%nucl_reac_sf (dist_nucl_reac_sf) (7.9.1.1.102)
rate (1127)	distribution%global_param%nucl_reac_sf%rate (vecflt_type) (7.9.1.1.14)
power (1127)	distribution%global_param%nucl_reac_sf%power (vecflt_type) (7.9.1.1.14)
profiles_1d (1054)	distribution%profiles_1d (dist_profiles) (7.9.1.1.111)
npsi (1136)	distribution%profiles_1d%npsi (vecint_type) (7.9.1.1.15)
rho_tor_norm (1136)	distribution%profiles_1d%rho_tor_norm (matflt_type) (7.9.1.1.12)
rho_tor (1136)	distribution%profiles_1d%rho_tor (matflt_type) (7.9.1.1.12)
psi (1136)	distribution%profiles_1d%psi (matflt_type) (7.9.1.1.12)
enrgd_tot (1136)	distribution%profiles_1d%enrgd_tot (matflt_type) (7.9.1.1.12)
enrgd_para (1136)	distribution%profiles_1d%enrgd_para (matflt_type) (7.9.1.1.12)
powd_coll_i (1136)	distribution%profiles_1d%powd_coll_i (array3dflt_type) (7.9.1.1.6)
powd_coll_e (1136)	distribution%profiles_1d%powd_coll_e (matflt_type) (7.9.1.1.12)
therm_srcd (1136)	distribution%profiles_1d%therm_srcd (dist_src_snk_surf) (7.9.1.1.112)
particlesd (1137)	distribution%profiles_1d%therm_srcd%particlesd (matflt_type) (7.9.1.1.12)
powerd (1137)	distribution%profiles_1d%therm_srcd%powerd (matflt_type) (7.9.1.1.12)
torqued (1137)	distribution%profiles_1d%therm_srcd%torqued (matflt_type) (7.9.1.1.12)
lossesd (1136)	distribution%profiles_1d%lossesd (dist_prof_surf_dist_losses) (7.9.1.1.105)
orb_loss (1130)	distribution%profiles_1d%lossesd%orb_loss (dist_src_snk_surf) (7.9.1.1.112)
particlesd (1137)	distribution%profiles_1d%lossesd%orb_loss%particlesd (matflt_type) (7.9.1.1.12)
powerd (1137)	distribution%profiles_1d%lossesd%orb_loss%powerd (matflt_type) (7.9.1.1.12)
torqued (1137)	distribution%profiles_1d%lossesd%orb_loss%torqued (matflt_type) (7.9.1.1.12)
neutr_loss (1130)	distribution%profiles_1d%lossesd%neutr_loss (dist_src_snk_surf) (7.9.1.1.112)
particlesd (1137)	distribution%profiles_1d%lossesd%neutr_loss%particlesd (matflt_type) (7.9.1.1.12)
powerd (1137)	distribution%profiles_1d%lossesd%neutr_loss%powerd (matflt_type) (7.9.1.1.12)
torqued (1137)	distribution%profiles_1d%lossesd%neutr_loss%torqued (matflt_type) (7.9.1.1.12)
curd_fp (1136)	distribution%profiles_1d%curd_fp (matflt_type) (7.9.1.1.12)
curd_dr (1136)	distribution%profiles_1d%curd_dr (vecflt_type) (7.9.1.1.14)
trqd_i (1136)	distribution%profiles_1d%trqd_i (array3dflt_type) (7.9.1.1.6)
trqd_e (1136)	distribution%profiles_1d%trqd_e (matflt_type) (7.9.1.1.12)
trqd_jrxb (1136)	distribution%profiles_1d%trqd_jrxb (matflt_type) (7.9.1.1.12)
nucl_rd_th (1136)	distribution%profiles_1d%nucl_rd_th (dist_prof_surf_nucl_reac_th) (7.9.1.1.107)
rated (1132)	distribution%profiles_1d%nucl_rd_th%rated (array3dflt_type) (7.9.1.1.6)
powerd (1132)	distribution%profiles_1d%nucl_rd_th%powerd (array3dflt_type) (7.9.1.1.6)
nucl_rd_sf (1136)	distribution%profiles_1d%nucl_rd_sf (dist_prof_surf_nucl_reac_sf) (7.9.1.1.106)
rate (1131)	distribution%profiles_1d%nucl_rd_sf%rate (matflt_type) (7.9.1.1.12)
power (1131)	distribution%profiles_1d%nucl_rd_sf%power (matflt_type) (7.9.1.1.12)
enrg_tot (1136)	distribution%profiles_1d%enrg_tot (matflt_type) (7.9.1.1.12)
enrg_para (1136)	distribution%profiles_1d%enrg_para (matflt_type) (7.9.1.1.12)
pow_coll_i (1136)	distribution%profiles_1d%pow_coll_i (array3dflt_type) (7.9.1.1.6)
pow_coll_e (1136)	distribution%profiles_1d%pow_coll_e (matflt_type) (7.9.1.1.12)
therm_src (1136)	distribution%profiles_1d%therm_src (dist_src_snk_vol) (7.9.1.1.114)
particles (1139)	distribution%profiles_1d%therm_src%particles (matflt_type) (7.9.1.1.12)
power (1139)	distribution%profiles_1d%therm_src%power (matflt_type) (7.9.1.1.12)
torque (1139)	distribution%profiles_1d%therm_src%torque (matflt_type) (7.9.1.1.12)
losses (1136)	distribution%profiles_1d%losses (dist_prof_vol_dist_losses) (7.9.1.1.108)
orb_loss (1133)	distribution%profiles_1d%losses%orb_loss (dist_src_snk_vol) (7.9.1.1.114)
particles (1139)	distribution%profiles_1d%losses%orb_loss%particles (matflt_type) (7.9.1.1.12)

power (1139)	distribution%profiles_1d%losses%orb_loss%power (matflt_type) (7.9.1.1.12)
torque (1139)	distribution%profiles_1d%losses%orb_loss%torque (matflt_type) (7.9.1.1.12)
neutr_loss (1133)	distribution%profiles_1d%losses%neutr_loss (dist_src_snk_vol) (7.9.1.1.114)
particles (1139)	distribution%profiles_1d%losses%neutr_loss%particles (matflt_type) (7.9.1.1.12)
power (1139)	distribution%profiles_1d%losses%neutr_loss%power (matflt_type) (7.9.1.1.12)
torque (1139)	distribution%profiles_1d%losses%neutr_loss%torque (matflt_type) (7.9.1.1.12)
cur_fp (1136)	distribution%profiles_1d%cur_fp (matflt_type) (7.9.1.1.12)
cur_dr (1136)	distribution%profiles_1d%cur_dr (matflt_type) (7.9.1.1.12)
trq_i (1136)	distribution%profiles_1d%trq_i (array3dflt_type) (7.9.1.1.6)
trq_e (1136)	distribution%profiles_1d%trq_e (matflt_type) (7.9.1.1.12)
trq_j_rxb (1136)	distribution%profiles_1d%trq_j_rxb (matflt_type) (7.9.1.1.12)
nucl_reac_th (1136)	distribution%profiles_1d%nucl_reac_th (dist_prof_vol_nucl_reac_th) (7.9.1.1.110)
rate (1135)	distribution%profiles_1d%nucl_reac_th%rate (array3dflt_type) (7.9.1.1.6)
power (1135)	distribution%profiles_1d%nucl_reac_th%power (array3dflt_type) (7.9.1.1.6)
nucl_reac_sf (1136)	distribution%profiles_1d%nucl_reac_sf (dist_prof_vol_nucl_reac_sf) (7.9.1.1.109)
rate (1134)	distribution%profiles_1d%nucl_reac_sf%rate (matflt_type) (7.9.1.1.12)
power (1134)	distribution%profiles_1d%nucl_reac_sf%power (matflt_type) (7.9.1.1.12)
dist_func (1054)	distribution%dist_func (dist_func) (7.9.1.1.96)
sol_type (1121)	distribution%dist_func%sol_type (vecint_type) (7.9.1.1.15)
test_part (1121)	distribution%dist_func%test_part (dist_test_part) (7.9.1.1.115)
nvar (1140)	distribution%dist_func%test_part%nvar (vecflt_type) (7.9.1.1.14)
var_id (1140)	distribution%dist_func%test_part%var_id (matint_type) (7.9.1.1.13)
var1 (1140)	distribution%dist_func%test_part%var1 (matflt_type) (7.9.1.1.12)
var2 (1140)	distribution%dist_func%test_part%var2 (matflt_type) (7.9.1.1.12)
var3 (1140)	distribution%dist_func%test_part%var3 (matflt_type) (7.9.1.1.12)
var4 (1140)	distribution%dist_func%test_part%var4 (matflt_type) (7.9.1.1.12)
var5 (1140)	distribution%dist_func%test_part%var5 (matflt_type) (7.9.1.1.12)
var6 (1140)	distribution%dist_func%test_part%var6 (matflt_type) (7.9.1.1.12)
weight (1140)	distribution%dist_func%test_part%weight (matflt_type) (7.9.1.1.12)
f0 (1121)	distribution%dist_func%f0 (dist_ff) (7.9.1.1.95)
grid_type (1120)	distribution%dist_func%f0%grid_type (vecint_type) (7.9.1.1.15)
grid (1120)	distribution%dist_func%f0%grid (dist_grid) (7.9.1.1.99)
dim1 (1124)	distribution%dist_func%f0%grid%dim1 (matflt_type) (7.9.1.1.12)
ndim1 (1124)	distribution%dist_func%f0%grid%ndim1 (vecint_type) (7.9.1.1.15)
dim2 (1124)	distribution%dist_func%f0%grid%dim2 (matflt_type) (7.9.1.1.12)
ndim2 (1124)	distribution%dist_func%f0%grid%ndim2 (vecint_type) (7.9.1.1.15)
dim3 (1124)	distribution%dist_func%f0%grid%dim3 (matflt_type) (7.9.1.1.12)
ndim3 (1124)	distribution%dist_func%f0%grid%ndim3 (vecint_type) (7.9.1.1.15)
jacobian (1124)	distribution%dist_func%f0%grid%jacobian (array4dflt_type) (7.9.1.1.8)
value (1120)	distribution%dist_func%f0%value (array4dflt_type) (7.9.1.1.8)
fullf (1121)	distribution%dist_func%fullf (dist_ff) (7.9.1.1.95)
grid_type (1120)	distribution%dist_func%fullf%grid_type (vecint_type) (7.9.1.1.15)
grid (1120)	distribution%dist_func%fullf%grid (dist_grid) (7.9.1.1.99)
dim1 (1124)	distribution%dist_func%fullf%grid%dim1 (matflt_type) (7.9.1.1.12)
ndim1 (1124)	distribution%dist_func%fullf%grid%ndim1 (vecint_type) (7.9.1.1.15)
dim2 (1124)	distribution%dist_func%fullf%grid%dim2 (matflt_type) (7.9.1.1.12)
ndim2 (1124)	distribution%dist_func%fullf%grid%ndim2 (vecint_type) (7.9.1.1.15)
dim3 (1124)	distribution%dist_func%fullf%grid%dim3 (matflt_type) (7.9.1.1.12)
ndim3 (1124)	distribution%dist_func%fullf%grid%ndim3 (vecint_type) (7.9.1.1.15)
jacobian (1124)	distribution%dist_func%fullf%grid%jacobian (array4dflt_type) (7.9.1.1.8)
value (1120)	distribution%dist_func%fullf%value (array4dflt_type) (7.9.1.1.8)
input_src (1054)	distribution%input_src (dist_input_src) (7.9.1.1.100)
particle_src (1125)	distribution%input_src%particle_src (dist_particle_src) (7.9.1.1.104)
total (1129)	distribution%input_src%particle_src%total (dist_src_snk_tot) (7.9.1.1.113)
particles (1138)	distribution%input_src%particle_src%total%particles (vecflt_type) (7.9.1.1.14)
power (1138)	distribution%input_src%particle_src%total%power (vecflt_type) (7.9.1.1.14)
torque (1138)	distribution%input_src%particle_src%total%torque (vecflt_type) (7.9.1.1.14)
volume_intgr (1129)	distribution%input_src%particle_src%volume_intgr (dist_src_snk_vol) (7.9.1.1.114)
particles (1139)	distribution%input_src%particle_src%volume_intgr%particles (matflt_type) (7.9.1.1.12)
power (1139)	distribution%input_src%particle_src%volume_intgr%power (matflt_type) (7.9.1.1.12)
torque (1139)	distribution%input_src%particle_src%volume_intgr%torque (matflt_type) (7.9.1.1.12)

flux_surf_av (1129)	distribution%input_src%particle_src%flux_surf_av (dist_src_snk_surf) (7.9.1.1.112)
particlesd (1137)	distribution%input_src%particle_src%flux_surf_av%particlesd (matflt_type) (7.9.1.1.12)
powerd (1137)	distribution%input_src%particle_src%flux_surf_av%powerd (matflt_type) (7.9.1.1.12)
torqued (1137)	distribution%input_src%particle_src%flux_surf_av%torqued (matflt_type) (7.9.1.1.12)
wave_src (1125)	distribution%input_src%wave_src (dist_wave_src) (7.9.1.1.116)
type (1141)	distribution%input_src%wave_src%type (vecstring_type) (7.9.1.1.16)
wave_power (1141)	distribution%input_src%wave_src%wave_power (vecflt_type) (7.9.1.1.14)
wave_powerd (1141)	distribution%input_src%wave_src%wave_powerd (matflt_type) (7.9.1.1.12)
codeparam (1054)	distribution%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	distribution%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	distribution%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	distribution%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	distribution%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	distribution%codeparam%output_flag (integer) (7.9.1.1.3)
time (1054)	distribution%time (float) (7.9.1.1.2)

7.9.1.2.12 distsource

datainfo (1055)	distsource%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	distsource%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	distsource%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	distsource%datainfo%source (string) (7.9.1.1.4)
comment (1115)	distsource%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	distsource%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	distsource%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	distsource%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	distsource%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	distsource%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	distsource%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	distsource%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	distsource%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	distsource%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	distsource%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	distsource%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	distsource%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1055)	distsource%composition (composition) (7.9.1.1.74)
amn (1099)	distsource%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	distsource%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	distsource%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	distsource%composition%imp_flag (vecint_type) (7.9.1.1.15)
src_spec (1055)	distsource%src_spec (vecint_type) (7.9.1.1.15)
global_param (1055)	distsource%global_param (distsource_global_param) (7.9.1.1.117)
src_pow (1142)	distsource%global_param%src_pow (vecflt_type) (7.9.1.1.14)
src_rate (1142)	distsource%global_param%src_rate (vecflt_type) (7.9.1.1.14)
profiles_1d (1055)	distsource%profiles_1d (distsource_profiles_1d) (7.9.1.1.118)
npsi (1143)	distsource%profiles_1d%npsi (vecint_type) (7.9.1.1.15)
rho_tor_norm (1143)	distsource%profiles_1d%rho_tor_norm (matflt_type) (7.9.1.1.12)
rho_tor (1143)	distsource%profiles_1d%rho_tor (matflt_type) (7.9.1.1.12)
psi (1143)	distsource%profiles_1d%psi (matflt_type) (7.9.1.1.12)
pow_den (1143)	distsource%profiles_1d%pow_den (matflt_type) (7.9.1.1.12)
src_rate (1143)	distsource%profiles_1d%src_rate (matflt_type) (7.9.1.1.12)
source_4d (1055)	distsource%source_4d (source_4d) (7.9.1.1.247)
gyrosrc_type (1272)	distsource%source_4d%gyrosrc_type (vecint_type) (7.9.1.1.15)
grid_type (1272)	distsource%source_4d%grid_type (vecint_type) (7.9.1.1.15)
rect_grid (1272)	distsource%source_4d%rect_grid (distsource_rect_grid) (7.9.1.1.119)
ndim1 (1144)	distsource%source_4d%rect_grid%ndim1 (vecint_type) (7.9.1.1.15)
ndim2 (1144)	distsource%source_4d%rect_grid%ndim2 (vecint_type) (7.9.1.1.15)
ndim3 (1144)	distsource%source_4d%rect_grid%ndim3 (vecint_type) (7.9.1.1.15)
ndim4 (1144)	distsource%source_4d%rect_grid%ndim4 (vecint_type) (7.9.1.1.15)
dim1 (1144)	distsource%source_4d%rect_grid%dim1 (matflt_type) (7.9.1.1.12)
dim2 (1144)	distsource%source_4d%rect_grid%dim2 (matflt_type) (7.9.1.1.12)

dim3 (1144)	distsource%source_4d%rect_grid%dim3 (matflt_type) (7.9.1.1.12)
dim4 (1144)	distsource%source_4d%rect_grid%dim4 (matflt_type) (7.9.1.1.12)
jacobian (1144)	distsource%source_4d%rect_grid%jacobian (array5dflt_type) (7.9.1.1.9)
source (1272)	distsource%source_4d%source (array5dflt_type) (7.9.1.1.9)
source_tp (1055)	distsource%source_tp (source_tp) (7.9.1.1.251)
n_particles (1276)	distsource%source_tp%n_particles (vecint_type) (7.9.1.1.15)
var_type (1276)	distsource%source_tp%var_type (integer) (7.9.1.1.3)
var1 (1276)	distsource%source_tp%var1 (matflt_type) (7.9.1.1.12)
var2 (1276)	distsource%source_tp%var2 (matflt_type) (7.9.1.1.12)
var3 (1276)	distsource%source_tp%var3 (matflt_type) (7.9.1.1.12)
var4 (1276)	distsource%source_tp%var4 (matflt_type) (7.9.1.1.12)
var5 (1276)	distsource%source_tp%var5 (matflt_type) (7.9.1.1.12)
var6 (1276)	distsource%source_tp%var6 (matflt_type) (7.9.1.1.12)
weight (1276)	distsource%source_tp%weight (matflt_type) (7.9.1.1.12)
codeparam (1055)	distsource%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	distsource%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	distsource%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	distsource%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	distsource%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	distsource%codeparam%output_flag (integer) (7.9.1.1.3)
time (1055)	distsource%time (float) (7.9.1.1.2)

7.9.1.2.13 ecediag

datainfo (1056)	ecediag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	ecediag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	ecediag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	ecediag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	ecediag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	ecediag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	ecediag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	ecediag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	ecediag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	ecediag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	ecediag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	ecediag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	ecediag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	ecediag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	ecediag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	ecediag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	ecediag%datainfo%putinfo%rights (string) (7.9.1.1.4)
setup (1056)	ecediag%setup (ecesetup) (7.9.1.1.121)
frequency (1146)	ecediag%setup%frequency (vecflt_type) (7.9.1.1.14)
position (1146)	ecediag%setup%position (rzphi1Dexp) (7.9.1.1.216)
r (1241)	ecediag%setup%position%r (exp1D) (7.9.1.1.128)
value (1153)	ecediag%setup%position%r%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ecediag%setup%position%r%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ecediag%setup%position%r%relerror (vecflt_type) (7.9.1.1.14)
z (1241)	ecediag%setup%position%z (exp1D) (7.9.1.1.128)
value (1153)	ecediag%setup%position%z%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ecediag%setup%position%z%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ecediag%setup%position%z%relerror (vecflt_type) (7.9.1.1.14)
phi (1241)	ecediag%setup%position%phi (exp1D) (7.9.1.1.128)
value (1153)	ecediag%setup%position%phi%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ecediag%setup%position%phi%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ecediag%setup%position%phi%relerror (vecflt_type) (7.9.1.1.14)
measure (1056)	ecediag%measure (ecemeasure) (7.9.1.1.120)
te (1145)	ecediag%measure%te (exp1D) (7.9.1.1.128)
value (1153)	ecediag%measure%te%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ecediag%measure%te%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ecediag%measure%te%relerror (vecflt_type) (7.9.1.1.14)

time (1056)	ecediag%time (float) (7.9.1.1.2)

7.9.1.2.14 edge

datainfo (1057)	edge%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	edge%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	edge%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	edge%datainfo%source (string) (7.9.1.1.4)
comment (1115)	edge%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	edge%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	edge%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	edge%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	edge%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	edge%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	edge%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	edge%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	edge%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	edge%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	edge%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	edge%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	edge%datainfo%putinfo%rights (string) (7.9.1.1.4)
grid (1057)	edge%grid (grid_full) (7.9.1.1.141)
spaces (1166)	edge%grid%spaces (grid_spaces) (7.9.1.1.143)
nspace (1168)	edge%grid%spaces%nspace (integer) (7.9.1.1.3)
space_1 (1168)	edge%grid%spaces%space_1 (grid_space) (7.9.1.1.142)
type_coord (1167)	edge%grid%spaces%space_1%type_coord (vecint_type) (7.9.1.1.15)
node_value (1167)	edge%grid%spaces%space_1%node_value (matflt_type) (7.9.1.1.12)
alter_coord (1167)	edge%grid%spaces%space_1%alter_coord (alter_coord) (7.9.1.1.55)
type_coord (1080)	edge%grid%spaces%space_1%alter_coord%type_coord (vecint_type) (7.9.1.1.15)
node_value (1080)	edge%grid%spaces%space_1%alter_coord%node_value (matflt_type) (7.9.1.1.12)
nobject (1167)	edge%grid%spaces%space_1%nobject (vecint_type) (7.9.1.1.15)
nobject_bou (1167)	edge%grid%spaces%space_1%nobject_bou (vecint_type) (7.9.1.1.15)
neighborside (1167)	edge%grid%spaces%space_1%neighborside (integer) (7.9.1.1.3)
neighbors (1167)	edge%grid%spaces%space_1%neighbors (matint_type) (7.9.1.1.13)
OBJDEF (1167)	edge%grid%spaces%space_1%OBJDEF (vecint_type) (7.9.1.1.15)
properties (1167)	edge%grid%spaces%space_1%properties (properties) (7.9.1.1.182)
alias (1207)	edge%grid%spaces%space_1%properties%alias (vecint_type) (7.9.1.1.15)
type (1207)	edge%grid%spaces%space_1%properties%type (vecint_type) (7.9.1.1.15)
is_x (1207)	edge%grid%spaces%space_1%properties%is_x (vecint_type) (7.9.1.1.15)
node_connect (1207)	edge%grid%spaces%space_1%properties%node_connect (string) (7.9.1.1.4)
bezier (1207)	edge%grid%spaces%space_1%properties%bezier (bezier) (7.9.1.1.65)
u (1090)	edge%grid%spaces%space_1%properties%bezier%u (matflt_type) (7.9.1.1.12)
v (1090)	edge%grid%spaces%space_1%properties%bezier%v (matflt_type) (7.9.1.1.12)
w (1090)	edge%grid%spaces%space_1%properties%bezier%w (matflt_type) (7.9.1.1.12)
space_2 (1168)	edge%grid%spaces%space_2 (grid_space) (7.9.1.1.142)
type_coord (1167)	edge%grid%spaces%space_2%type_coord (vecint_type) (7.9.1.1.15)
node_value (1167)	edge%grid%spaces%space_2%node_value (matflt_type) (7.9.1.1.12)
alter_coord (1167)	edge%grid%spaces%space_2%alter_coord (alter_coord) (7.9.1.1.55)
type_coord (1080)	edge%grid%spaces%space_2%alter_coord%type_coord (vecint_type) (7.9.1.1.15)
node_value (1080)	edge%grid%spaces%space_2%alter_coord%node_value (matflt_type) (7.9.1.1.12)
nobject (1167)	edge%grid%spaces%space_2%nobject (vecint_type) (7.9.1.1.15)
nobject_bou (1167)	edge%grid%spaces%space_2%nobject_bou (vecint_type) (7.9.1.1.15)
neighborside (1167)	edge%grid%spaces%space_2%neighborside (integer) (7.9.1.1.3)
neighbors (1167)	edge%grid%spaces%space_2%neighbors (matint_type) (7.9.1.1.13)
OBJDEF (1167)	edge%grid%spaces%space_2%OBJDEF (vecint_type) (7.9.1.1.15)
properties (1167)	edge%grid%spaces%space_2%properties (properties) (7.9.1.1.182)
alias (1207)	edge%grid%spaces%space_2%properties%alias (vecint_type) (7.9.1.1.15)
type (1207)	edge%grid%spaces%space_2%properties%type (vecint_type) (7.9.1.1.15)
is_x (1207)	edge%grid%spaces%space_2%properties%is_x (vecint_type) (7.9.1.1.15)
node_connect (1207)	edge%grid%spaces%space_2%properties%node_connect (string) (7.9.1.1.4)
bezier (1207)	edge%grid%spaces%space_2%properties%bezier (bezier) (7.9.1.1.65)

v (1090)	edge%grid%spaces%space_5%properties%bezier%v (matflt_type) (7.9.1.1.12)
w (1090)	edge%grid%spaces%space_5%properties%bezier%w (matflt_type) (7.9.1.1.12)
metric (1166)	edge%grid%metric (vecflt_type) (7.9.1.1.14)
te (1057)	edge%te (matflt_type) (7.9.1.1.12)
ne (1057)	edge%ne (matflt_type) (7.9.1.1.12)
time (1057)	edge%time (float) (7.9.1.1.2)
codeparam (1057)	edge%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	edge%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	edge%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	edge%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	edge%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	edge%codeparam%output_flag (integer) (7.9.1.1.3)

7.9.1.2.15 equilibrium

datainfo (1058)	equilibrium%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	equilibrium%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	equilibrium%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	equilibrium%datainfo%source (string) (7.9.1.1.4)
comment (1115)	equilibrium%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	equilibrium%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	equilibrium%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	equilibrium%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	equilibrium%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	equilibrium%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	equilibrium%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	equilibrium%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	equilibrium%datainfo%putinfo%rights (string) (7.9.1.1.4)
eqconstraint (1058)	equilibrium%eqconstraint (eqconstraint) (7.9.1.1.123)
bpol (1148)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%bpol%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%bpol%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.1.1.14)
bvac_r (1148)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.1.1.125)
measured (1150)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.1.1.2)
source (1150)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.1.1.4)
time (1150)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.1.1.2)
exact (1150)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.1.1.3)
weight (1150)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.1.1.2)
sigma (1150)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.1.1.2)
calculated (1150)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.1.1.2)
chi2 (1150)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.1.1.2)
faraday (1148)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%faraday%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%faraday%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.1.1.14)
flux (1148)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.1.1.126)

measured (1151)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%flux%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%flux%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.1.1.14)
i_plasma (1148)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.1.1.125)
measured (1150)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.1.1.2)
source (1150)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.1.1.4)
time (1150)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.1.1.2)
exact (1150)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.1.1.3)
weight (1150)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.1.1.2)
sigma (1150)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.1.1.2)
calculated (1150)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.1.1.2)
chi2 (1150)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.1.1.2)
isoflux (1148)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.1.1.144)
position (1169)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.1.1.211)
r (1236)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.1.1.14)
source (1169)	equilibrium%eqconstraint%isoflux%source (string) (7.9.1.1.4)
weight (1169)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.1.1.14)
sigma (1169)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.1.1.14)
calculated (1169)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1169)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.1.1.14)
jsurf (1148)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%jsurf%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%jsurf%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.1.1.14)
magnet_iron (1148)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.1.1.150)
mr (1175)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.1.1.14)
mz (1175)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.1.1.14)
mse (1148)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%mse%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%mse%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.1.1.14)

calculated (1151)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.1.1.14)
ne (1148)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%ne%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%ne%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.1.1.14)
pfcurrent (1148)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.1.1.14)
pressure (1148)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.1.1.126)
measured (1151)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.1.1.14)
source (1151)	equilibrium%eqconstraint%pressure%source (string) (7.9.1.1.4)
time (1151)	equilibrium%eqconstraint%pressure%time (float) (7.9.1.1.2)
exact (1151)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.1.1.15)
weight (1151)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.1.1.14)
sigma (1151)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.1.1.14)
calculated (1151)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1151)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.1.1.14)
q (1148)	equilibrium%eqconstraint%q (q) (7.9.1.1.185)
qvalue (1210)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.1.1.14)
position (1210)	equilibrium%eqconstraint%q%position (rz1D) (7.9.1.1.211)
r (1236)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.1.1.14)
source (1210)	equilibrium%eqconstraint%q%source (string) (7.9.1.1.4)
exact (1210)	equilibrium%eqconstraint%q%exact (integer) (7.9.1.1.3)
weight (1210)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.1.1.14)
sigma (1210)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.1.1.14)
calculated (1210)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1210)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.1.1.14)
xpts (1148)	equilibrium%eqconstraint%xpts (xpts) (7.9.1.1.293)
position (1318)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.1.1.211)
r (1236)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.1.1.14)
source (1318)	equilibrium%eqconstraint%xpts%source (string) (7.9.1.1.4)
weight (1318)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.1.1.14)
sigma (1318)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.1.1.14)
calculated (1318)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.1.1.14)
chi2 (1318)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.1.1.14)
eqgeometry (1058)	equilibrium%eqgeometry (eqgeometry) (7.9.1.1.124)
source (1149)	equilibrium%eqgeometry%source (string) (7.9.1.1.4)
boundarytype (1149)	equilibrium%eqgeometry%boundarytype (integer) (7.9.1.1.3)
boundary (1149)	equilibrium%eqgeometry%boundary (rz1D_npoints) (7.9.1.1.212)
r (1237)	equilibrium%eqgeometry%boundary%r (vecflt_type) (7.9.1.1.14)
z (1237)	equilibrium%eqgeometry%boundary%z (vecflt_type) (7.9.1.1.14)
npoints (1237)	equilibrium%eqgeometry%boundary%npoints (integer) (7.9.1.1.3)
geom_axis (1149)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.1.1.2)
a_minor (1149)	equilibrium%eqgeometry%a_minor (float) (7.9.1.1.2)
elongation (1149)	equilibrium%eqgeometry%elongation (float) (7.9.1.1.2)

tria_upper (1149)	equilibrium%eqgeometry%tria_upper (float) (7.9.1.1.2)
tria_lower (1149)	equilibrium%eqgeometry%tria_lower (float) (7.9.1.1.2)
xpts (1149)	equilibrium%eqgeometry%xpts (rz1D) (7.9.1.1.211)
r (1236)	equilibrium%eqgeometry%xpts%r (vecflt_type) (7.9.1.1.14)
z (1236)	equilibrium%eqgeometry%xpts%z (vecflt_type) (7.9.1.1.14)
left_low_st (1149)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.1.1.2)
right_low_st (1149)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.1.1.2)
left_up_st (1149)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.1.1.2)
right_up_st (1149)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.1.1.2)
active_limit (1149)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%eqgeometry%active_limit%r (float) (7.9.1.1.2)
z (1235)	equilibrium%eqgeometry%active_limit%z (float) (7.9.1.1.2)
flush (1058)	equilibrium%flush (flush) (7.9.1.1.131)
datainfo (1156)	equilibrium%flush%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	equilibrium%flush%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	equilibrium%flush%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	equilibrium%flush%datainfo%source (string) (7.9.1.1.4)
comment (1115)	equilibrium%flush%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	equilibrium%flush%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	equilibrium%flush%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	equilibrium%flush%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.1.1.4)
position (1156)	equilibrium%flush%position (rz1D) (7.9.1.1.211)
r (1236)	equilibrium%flush%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	equilibrium%flush%position%z (vecflt_type) (7.9.1.1.14)
coef (1156)	equilibrium%flush%coef (matflt_type) (7.9.1.1.12)
codeparam (1156)	equilibrium%flush%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	equilibrium%flush%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	equilibrium%flush%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	equilibrium%flush%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	equilibrium%flush%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	equilibrium%flush%codeparam%output_flag (integer) (7.9.1.1.3)
global_param (1058)	equilibrium%global_param (global_param) (7.9.1.1.138)
beta_pol (1163)	equilibrium%global_param%beta_pol (float) (7.9.1.1.2)
beta_tor (1163)	equilibrium%global_param%beta_tor (float) (7.9.1.1.2)
beta_normal (1163)	equilibrium%global_param%beta_normal (float) (7.9.1.1.2)
i_plasma (1163)	equilibrium%global_param%i_plasma (float) (7.9.1.1.2)
li (1163)	equilibrium%global_param%li (float) (7.9.1.1.2)
volume (1163)	equilibrium%global_param%volume (float) (7.9.1.1.2)
area (1163)	equilibrium%global_param%area (float) (7.9.1.1.2)
psi_ax (1163)	equilibrium%global_param%psi_ax (float) (7.9.1.1.2)
psi_bound (1163)	equilibrium%global_param%psi_bound (float) (7.9.1.1.2)
mag_axis (1163)	equilibrium%global_param%mag_axis (mag_axis) (7.9.1.1.149)
position (1174)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.1.1.210)
r (1235)	equilibrium%global_param%mag_axis%position%r (float) (7.9.1.1.2)

z (1235)	equilibrium%global_param%mag_axis%position%z (float) (7.9.1.1.2)
bphi (1174)	equilibrium%global_param%mag_axis%bphi (float) (7.9.1.1.2)
q (1174)	equilibrium%global_param%mag_axis%q (float) (7.9.1.1.2)
q_95 (1163)	equilibrium%global_param%q_95 (float) (7.9.1.1.2)
q_min (1163)	equilibrium%global_param%q_min (float) (7.9.1.1.2)
toroid_field (1163)	equilibrium%global_param%toroid_field (b0r0) (7.9.1.1.62)
r0 (1087)	equilibrium%global_param%toroid_field%r0 (float) (7.9.1.1.2)
b0 (1087)	equilibrium%global_param%toroid_field%b0 (float) (7.9.1.1.2)
w_mhd (1163)	equilibrium%global_param%w_mhd (float) (7.9.1.1.2)
profiles_1d (1058)	equilibrium%profiles_1d (profiles_1d) (7.9.1.1.179)
psi (1204)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.1.1.14)
phi (1204)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.1.1.14)
pressure (1204)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.1.1.14)
F_dia (1204)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.1.1.14)
pprime (1204)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.1.1.14)
ffprime (1204)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.1.1.14)
jphi (1204)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.1.1.14)
jparallel (1204)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.1.1.14)
q (1204)	equilibrium%profiles_1d%q (vecflt_type) (7.9.1.1.14)
r_inboard (1204)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.1.1.14)
r_outboard (1204)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.1.1.14)
rho_tor (1204)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.1.1.14)
rho_vol (1204)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.1.1.14)
beta_pol (1204)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.1.1.14)
li (1204)	equilibrium%profiles_1d%li (vecflt_type) (7.9.1.1.14)
elongation (1204)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.1.1.14)
tria_upper (1204)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.1.1.14)
tria_lower (1204)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.1.1.14)
volume (1204)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.1.1.14)
vprime (1204)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.1.1.14)
area (1204)	equilibrium%profiles_1d%area (vecflt_type) (7.9.1.1.14)
aprime (1204)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.1.1.14)
surface (1204)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.1.1.14)
ftrap (1204)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.1.1.14)
gm1 (1204)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.1.1.14)
gm2 (1204)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.1.1.14)
gm3 (1204)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.1.1.14)
gm4 (1204)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.1.1.14)
gm5 (1204)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.1.1.14)
gm6 (1204)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.1.1.14)
gm7 (1204)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.1.1.14)
gm8 (1204)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.1.1.14)
gm9 (1204)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.1.1.14)
profiles_2d (1058)	equilibrium%profiles_2d (profiles_2d) (7.9.1.1.180)
grid_type (1205)	equilibrium%profiles_2d%grid_type (string) (7.9.1.1.4)
grid (1205)	equilibrium%profiles_2d%grid (grid) (7.9.1.1.140)
dim1 (1165)	equilibrium%profiles_2d%grid%dim1 (vecflt_type) (7.9.1.1.14)
dim2 (1165)	equilibrium%profiles_2d%grid%dim2 (vecflt_type) (7.9.1.1.14)
connect (1165)	equilibrium%profiles_2d%grid%connect (matint_type) (7.9.1.1.13)
psi_grid (1205)	equilibrium%profiles_2d%psi_grid (matflt_type) (7.9.1.1.12)
jphi_grid (1205)	equilibrium%profiles_2d%jphi_grid (matflt_type) (7.9.1.1.12)
jpar_grid (1205)	equilibrium%profiles_2d%jpar_grid (matflt_type) (7.9.1.1.12)
br (1205)	equilibrium%profiles_2d%br (matflt_type) (7.9.1.1.12)
bz (1205)	equilibrium%profiles_2d%bz (matflt_type) (7.9.1.1.12)
bphi (1205)	equilibrium%profiles_2d%bphi (matflt_type) (7.9.1.1.12)
position (1205)	equilibrium%profiles_2d%position (rz2D) (7.9.1.1.213)
r (1238)	equilibrium%profiles_2d%position%r (matflt_type) (7.9.1.1.12)
z (1238)	equilibrium%profiles_2d%position%z (matflt_type) (7.9.1.1.12)
coord_sys (1058)	equilibrium%coord_sys (coord_sys) (7.9.1.1.76)
grid_type (1101)	equilibrium%coord_sys%grid_type (string) (7.9.1.1.4)
grid (1101)	equilibrium%coord_sys%grid (reggrid) (7.9.1.1.208)

dim1 (1233)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.1.1.14)
dim2 (1233)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.1.1.14)
jacobian (1101)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.1.1.12)
g_11 (1101)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.1.1.12)
g_12 (1101)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.1.1.12)
g_13 (1101)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.1.1.12)
g_22 (1101)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.1.1.12)
g_23 (1101)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.1.1.12)
g_33 (1101)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.1.1.12)
position (1101)	equilibrium%coord_sys%position (rz2D) (7.9.1.1.213)
r (1238)	equilibrium%coord_sys%position%r (matflt_type) (7.9.1.1.12)
z (1238)	equilibrium%coord_sys%position%z (matflt_type) (7.9.1.1.12)
time (1058)	equilibrium%time (float) (7.9.1.1.2)
codeparam (1058)	equilibrium%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	equilibrium%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	equilibrium%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	equilibrium%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	equilibrium%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	equilibrium%codeparam%output_flag (integer) (7.9.1.1.3)

7.9.1.2.16 interfdiag

datainfo (1172)	lineintegraldiag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	lineintegraldiag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	lineintegraldiag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	lineintegraldiag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	lineintegraldiag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	lineintegraldiag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	lineintegraldiag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	lineintegraldiag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.1.1.4)
expression (1172)	lineintegraldiag%expression (string) (7.9.1.1.4)
setup_line (1172)	lineintegraldiag%setup_line (setup_line) (7.9.1.1.245)
pivot_point (1270)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.1.1.14)
horchordang1 (1270)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.1.1.14)
verchordang1 (1270)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.1.1.14)
width (1270)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.1.1.14)
second_point (1270)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.1.1.14)
horchordang2 (1270)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.1.1.14)
verchordang2 (1270)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.1.1.14)
third_point (1270)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.1.1.14)
nchordpoints (1270)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.1.1.3)
measure (1172)	lineintegraldiag%measure (exp1D) (7.9.1.1.128)
value (1153)	lineintegraldiag%measure%value (vecflt_type) (7.9.1.1.14)

abserror (1153)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.1.1.14)
time (1172)	lineintegraldiag%time (float) (7.9.1.1.2)

7.9.1.2.17 ironmodel

datainfo (1060)	ironmodel%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	ironmodel%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	ironmodel%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	ironmodel%datainfo%source (string) (7.9.1.1.4)
comment (1115)	ironmodel%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	ironmodel%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	ironmodel%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	ironmodel%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	ironmodel%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	ironmodel%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	ironmodel%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	ironmodel%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	ironmodel%datainfo%putinfo%rights (string) (7.9.1.1.4)
desc_iron (1060)	ironmodel%desc_iron (desc_iron) (7.9.1.1.92)
name (1117)	ironmodel%desc_iron%name (vecstring_type) (7.9.1.1.16)
id (1117)	ironmodel%desc_iron%id (vecstring_type) (7.9.1.1.16)
permeability (1117)	ironmodel%desc_iron%permeability (permeability) (7.9.1.1.165)
b (1190)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.1.1.12)
mur (1190)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.1.1.12)
geom_iron (1117)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.1.1.137)
npoints (1162)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.1.1.15)
rzcoordinate (1162)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.1.1.213)
r (1238)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.1.1.12)
z (1238)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.1.1.12)
magnetise (1060)	ironmodel%magnetise (magnetise) (7.9.1.1.151)
mr (1176)	ironmodel%magnetise%mr (exp1D) (7.9.1.1.128)
value (1153)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.1.1.14)
mz (1176)	ironmodel%magnetise%mz (exp1D) (7.9.1.1.128)
value (1153)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.1.1.14)
time (1060)	ironmodel%time (float) (7.9.1.1.2)

7.9.1.2.18 launchs

datainfo (1061)	launchs%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	launchs%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	launchs%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	launchs%datainfo%source (string) (7.9.1.1.4)
comment (1115)	launchs%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	launchs%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	launchs%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	launchs%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	launchs%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	launchs%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	launchs%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	launchs%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	launchs%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	launchs%datainfo%putinfo%putmethod (string) (7.9.1.1.4)

putaccess (1209)	launchs%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	launchs%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	launchs%datainfo%putinfo%rights (string) (7.9.1.1.4)
name (1061)	launchs%name (vecstring_type) (7.9.1.1.16)
type (1061)	launchs%type (vecstring_type) (7.9.1.1.16)
frequency (1061)	launchs%frequency (vecflt_type) (7.9.1.1.14)
mode (1061)	launchs%mode (vecint_type) (7.9.1.1.15)
position (1061)	launchs%position (rzphi1D) (7.9.1.1.215)
r (1240)	launchs%position%r (vecflt_type) (7.9.1.1.14)
z (1240)	launchs%position%z (vecflt_type) (7.9.1.1.14)
phi (1240)	launchs%position%phi (vecflt_type) (7.9.1.1.14)
spectrum (1061)	launchs%spectrum (spectrum) (7.9.1.1.256)
nn_phi (1281)	launchs%spectrum%nn_phi (vecint_type) (7.9.1.1.15)
nn_theta (1281)	launchs%spectrum%nn_theta (vecint_type) (7.9.1.1.15)
n_phi (1281)	launchs%spectrum%n_phi (matflt_type) (7.9.1.1.12)
n_theta (1281)	launchs%spectrum%n_theta (matflt_type) (7.9.1.1.12)
power (1281)	launchs%spectrum%power (array3dflt_type) (7.9.1.1.6)
beam (1061)	launchs%beam (rf_beam) (7.9.1.1.209)
spot (1234)	launchs%beam%spot (spot) (7.9.1.1.257)
waist (1282)	launchs%beam%spot%waist (matflt_type) (7.9.1.1.12)
angle (1282)	launchs%beam%spot%angle (vecflt_type) (7.9.1.1.14)
phaseellipse (1234)	launchs%beam%phaseellipse (phaseellipse) (7.9.1.1.173)
invcurvrad (1198)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.1.1.12)
angle (1198)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.1.1.14)
codeparam (1061)	launchs%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	launchs%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	launchs%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	launchs%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	launchs%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	launchs%codeparam%output_flag (integer) (7.9.1.1.3)
time (1061)	launchs%time (float) (7.9.1.1.2)

7.9.1.2.19 limiter

datainfo (1062)	limiter%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	limiter%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	limiter%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	limiter%datainfo%source (string) (7.9.1.1.4)
comment (1115)	limiter%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	limiter%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	limiter%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	limiter%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	limiter%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	limiter%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	limiter%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	limiter%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	limiter%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	limiter%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	limiter%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	limiter%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	limiter%datainfo%putinfo%rights (string) (7.9.1.1.4)
position (1062)	limiter%position (rz1D) (7.9.1.1.211)
r (1236)	limiter%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	limiter%position%z (vecflt_type) (7.9.1.1.14)

7.9.1.2.20 magdiag

datainfo (1063)	magdiag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	magdiag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	magdiag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	magdiag%datainfo%source (string) (7.9.1.1.4)

comment (1115)	magdiag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	magdiag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	magdiag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	magdiag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	magdiag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	magdiag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	magdiag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	magdiag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	magdiag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	magdiag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	magdiag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	magdiag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	magdiag%datainfo%putinfo%rights (string) (7.9.1.1.4)
ip (1063)	magdiag%ip (exp0D) (7.9.1.1.127)
value (1152)	magdiag%ip%value (float) (7.9.1.1.2)
abserror (1152)	magdiag%ip%abserror (float) (7.9.1.1.2)
relerror (1152)	magdiag%ip%relerror (float) (7.9.1.1.2)
diamagflux (1063)	magdiag%diamagflux (exp0D) (7.9.1.1.127)
value (1152)	magdiag%diamagflux%value (float) (7.9.1.1.2)
abserror (1152)	magdiag%diamagflux%abserror (float) (7.9.1.1.2)
relerror (1152)	magdiag%diamagflux%relerror (float) (7.9.1.1.2)
flux_loops (1063)	magdiag%flux_loops (flux_loops) (7.9.1.1.132)
setup_floops (1157)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.1.1.243)
name (1268)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.1.1.16)
id (1268)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.1.1.16)
position (1268)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.1.1.217)
r (1242)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.1.1.12)
z (1242)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.1.1.12)
phi (1242)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.1.1.12)
npoints (1268)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.1.1.15)
measure (1157)	magdiag%flux_loops%measure (exp1D) (7.9.1.1.128)
value (1153)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.1.1.14)
bpol_probes (1063)	magdiag%bpol_probes (bpol_probes) (7.9.1.1.71)
setup_bprobe (1096)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.1.1.242)
name (1267)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.1.1.16)
id (1267)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.1.1.16)
position (1267)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.1.1.211)
r (1236)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.1.1.14)
polangle (1267)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.1.1.14)
torangle (1267)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.1.1.14)
area (1267)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.1.1.14)
length (1267)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.1.1.14)
turns (1267)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.1.1.15)
measure (1096)	magdiag%bpol_probes%measure (exp1D) (7.9.1.1.128)
value (1153)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.1.1.14)
time (1063)	magdiag%time (float) (7.9.1.1.2)

7.9.1.2.21 mhd

datainfo (1064)	mhd%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	mhd%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	mhd%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	mhd%datainfo%source (string) (7.9.1.1.4)
comment (1115)	mhd%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	mhd%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	mhd%datainfo%whatref (whatref) (7.9.1.1.292)

user (1317)	mhd%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	mhd%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	mhd%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	mhd%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	mhd%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	mhd%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	mhd%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	mhd%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	mhd%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	mhd%datainfo%putinfo%rights (string) (7.9.1.1.4)
n (1064)	mhd%n (vecint_type) (7.9.1.1.15)
m (1064)	mhd%m (matint_type) (7.9.1.1.13)
psi (1064)	mhd%psi (vecflt_type) (7.9.1.1.14)
frequency (1064)	mhd%frequency (vecflt_type) (7.9.1.1.14)
growthrate (1064)	mhd%growthrate (vecflt_type) (7.9.1.1.14)
disp_perp (1064)	mhd%disp_perp (array3dflt_type) (7.9.1.1.6)
disp_par (1064)	mhd%disp_par (array3dflt_type) (7.9.1.1.6)
tau_alfven (1064)	mhd%tau_alfven (vecflt_type) (7.9.1.1.14)
tau_resistive (1064)	mhd%tau_resistive (vecflt_type) (7.9.1.1.14)
time (1064)	mhd%time (float) (7.9.1.1.2)
codeparam (1064)	mhd%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	mhd%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	mhd%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	mhd%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	mhd%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	mhd%codeparam%output_flag (integer) (7.9.1.1.3)

7.9.1.2.22 msediag

datainfo (1065)	msediag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	msediag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	msediag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	msediag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	msediag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	msediag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	msediag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	msediag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	msediag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	msediag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	msediag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	msediag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	msediag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	msediag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	msediag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	msediag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	msediag%datainfo%putinfo%rights (string) (7.9.1.1.4)
setup_mse (1065)	msediag%setup_mse (setup_mse) (7.9.1.1.246)
rzgamma (1271)	msediag%setup_mse%rzgamma (rzphidrdzdphi1D) (7.9.1.1.218)
r (1243)	msediag%setup_mse%rzgamma%r (vecflt_type) (7.9.1.1.14)
z (1243)	msediag%setup_mse%rzgamma%z (vecflt_type) (7.9.1.1.14)
phi (1243)	msediag%setup_mse%rzgamma%phi (vecflt_type) (7.9.1.1.14)
dr (1243)	msediag%setup_mse%rzgamma%dr (vecflt_type) (7.9.1.1.14)
dz (1243)	msediag%setup_mse%rzgamma%dz (vecflt_type) (7.9.1.1.14)
dphi (1243)	msediag%setup_mse%rzgamma%dphi (vecflt_type) (7.9.1.1.14)
geom_coef (1271)	msediag%setup_mse%geom_coef (matflt_type) (7.9.1.1.12)
measure (1065)	msediag%measure (exp1D) (7.9.1.1.128)
value (1153)	msediag%measure%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	msediag%measure%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	msediag%measure%relerror (vecflt_type) (7.9.1.1.14)
time (1065)	msediag%time (float) (7.9.1.1.2)

7.9.1.2.23 nbi

datainfo (1066)	nbi%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	nbi%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	nbi%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	nbi%datainfo%source (string) (7.9.1.1.4)
comment (1115)	nbi%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	nbi%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	nbi%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	nbi%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	nbi%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	nbi%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	nbi%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	nbi%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	nbi%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	nbi%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	nbi%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	nbi%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	nbi%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1066)	nbi%composition (composition) (7.9.1.1.74)
amn (1099)	nbi%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	nbi%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	nbi%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	nbi%composition%imp_flag (vecint_type) (7.9.1.1.15)
inj_spec (1066)	nbi%inj_spec (vecint_type) (7.9.1.1.15)
nunits_spec (1066)	nbi%nunits_spec (vecint_type) (7.9.1.1.15)
spec2unit (1066)	nbi%spec2unit (matint_type) (7.9.1.1.13)
unit2spec (1066)	nbi%unit2spec (vecint_type) (7.9.1.1.15)
pow_unit (1066)	nbi%pow_unit (exp1D) (7.9.1.1.128)
value (1153)	nbi%pow_unit%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	nbi%pow_unit%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	nbi%pow_unit%relerror (vecflt_type) (7.9.1.1.14)
inj_eng_unit (1066)	nbi%inj_eng_unit (exp1D) (7.9.1.1.128)
value (1153)	nbi%inj_eng_unit%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	nbi%inj_eng_unit%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	nbi%inj_eng_unit%relerror (vecflt_type) (7.9.1.1.14)
halfe_cfr (1066)	nbi%halfe_cfr (exp1D) (7.9.1.1.128)
value (1153)	nbi%halfe_cfr%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	nbi%halfe_cfr%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	nbi%halfe_cfr%relerror (vecflt_type) (7.9.1.1.14)
thirde_cfr (1066)	nbi%thirde_cfr (exp1D) (7.9.1.1.128)
value (1153)	nbi%thirde_cfr%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	nbi%thirde_cfr%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	nbi%thirde_cfr%relerror (vecflt_type) (7.9.1.1.14)
setup_inject (1066)	nbi%setup_inject (setup_inject) (7.9.1.1.244)
position (1269)	nbi%setup_inject%position (rzphi1D) (7.9.1.1.215)
r (1240)	nbi%setup_inject%position%r (vecflt_type) (7.9.1.1.14)
z (1240)	nbi%setup_inject%position%z (vecflt_type) (7.9.1.1.14)
phi (1240)	nbi%setup_inject%position%phi (vecflt_type) (7.9.1.1.14)
tang_rad (1269)	nbi%setup_inject%tang_rad (vecflt_type) (7.9.1.1.14)
angle (1269)	nbi%setup_inject%angle (vecflt_type) (7.9.1.1.14)
direction (1269)	nbi%setup_inject%direction (vecint_type) (7.9.1.1.15)
div_vert (1269)	nbi%setup_inject%div_vert (vecflt_type) (7.9.1.1.14)
div_horiz (1269)	nbi%setup_inject%div_horiz (vecflt_type) (7.9.1.1.14)
focal_len_hz (1269)	nbi%setup_inject%focal_len_hz (vecflt_type) (7.9.1.1.14)
focal_len_vc (1269)	nbi%setup_inject%focal_len_vc (vecflt_type) (7.9.1.1.14)
beamlets (1269)	nbi%setup_inject%beamlets (beamlets) (7.9.1.1.63)
nbeamlets (1088)	nbi%setup_inject%beamlets%nbeamlets (vecint_type) (7.9.1.1.15)
position (1088)	nbi%setup_inject%beamlets%position (rzphi2D) (7.9.1.1.217)
r (1242)	nbi%setup_inject%beamlets%position%r (matflt_type) (7.9.1.1.12)
z (1242)	nbi%setup_inject%beamlets%position%z (matflt_type) (7.9.1.1.12)
phi (1242)	nbi%setup_inject%beamlets%position%phi (matflt_type) (7.9.1.1.12)

tang_rad_blt (1088)	nbi%setup_inject%beamlets%tang_rad_blt (matflt_type) (7.9.1.1.12)
angle_blt (1088)	nbi%setup_inject%beamlets%angle_blt (matflt_type) (7.9.1.1.12)
pow_frc_blt (1088)	nbi%setup_inject%beamlets%pow_frc_blt (matflt_type) (7.9.1.1.12)
codeparam (1066)	nbi%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	nbi%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	nbi%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	nbi%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	nbi%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	nbi%codeparam%output_flag (integer) (7.9.1.1.3)
time (1066)	nbi%time (float) (7.9.1.1.2)

7.9.1.2.24 neoclassic

datainfo (1067)	neoclassic%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	neoclassic%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	neoclassic%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	neoclassic%datainfo%source (string) (7.9.1.1.4)
comment (1115)	neoclassic%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	neoclassic%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	neoclassic%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	neoclassic%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	neoclassic%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	neoclassic%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	neoclassic%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	neoclassic%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	neoclassic%datainfo%putinfo%rights (string) (7.9.1.1.4)
rho_tor_norm (1067)	neoclassic%rho_tor_norm (vecflt_type) (7.9.1.1.14)
rho_tor (1067)	neoclassic%rho_tor (vecflt_type) (7.9.1.1.14)
composition (1067)	neoclassic%composition (composition) (7.9.1.1.74)
amn (1099)	neoclassic%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	neoclassic%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	neoclassic%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	neoclassic%composition%imp_flag (vecint_type) (7.9.1.1.15)
ni_neo (1067)	neoclassic%ni_neo (transcoefion) (7.9.1.1.279)
diff_eff (1304)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.1.1.12)
vconv_eff (1304)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.1.1.12)
exchange (1304)	neoclassic%ni_neo%exchange (matflt_type) (7.9.1.1.12)
qgi (1304)	neoclassic%ni_neo%qgi (matflt_type) (7.9.1.1.12)
flux (1304)	neoclassic%ni_neo%flux (matflt_type) (7.9.1.1.12)
off_diagonal (1304)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.1.1.159)
d_ni (1184)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.1.1.6)
d_ti (1184)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.1.1.6)
d_ne (1184)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.1.1.12)
d_te (1184)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.1.1.12)
d_epar (1184)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.1.1.12)
d_mtor (1184)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.1.1.12)
flag (1304)	neoclassic%ni_neo%flag (integer) (7.9.1.1.3)
ne_neo (1067)	neoclassic%ne_neo (transcoefel) (7.9.1.1.277)
diff_eff (1302)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.1.1.14)
vconv_eff (1302)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.1.1.14)
flux (1302)	neoclassic%ne_neo%flux (vecflt_type) (7.9.1.1.14)
off_diagonal (1302)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.1.1.158)
d_ni (1183)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.1.1.12)
d_ti (1183)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.1.1.12)
d_ne (1183)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.1.1.14)
d_te (1183)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.1.1.14)
d_epar (1183)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.1.1.14)

d_mtor (1183)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.1.1.14)
flag (1302)	neoclassic%ne_neo%flag (integer) (7.9.1.1.3)
nz_neo (1067)	neoclassic%nz_neo (transcoefimp) (7.9.1.1.278)
diff_eff (1303)	neoclassic%nz_neo%diff_eff (array3dflt_type) (7.9.1.1.6)
vconv_eff (1303)	neoclassic%nz_neo%vconv_eff (array3dflt_type) (7.9.1.1.6)
exchange (1303)	neoclassic%nz_neo%exchange (array3dflt_type) (7.9.1.1.6)
flux (1303)	neoclassic%nz_neo%flux (array3dflt_type) (7.9.1.1.6)
flag (1303)	neoclassic%nz_neo%flag (integer) (7.9.1.1.3)
ti_neo (1067)	neoclassic%ti_neo (transcoefion) (7.9.1.1.279)
diff_eff (1304)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.1.1.12)
vconv_eff (1304)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.1.1.12)
exchange (1304)	neoclassic%ti_neo%exchange (matflt_type) (7.9.1.1.12)
qgi (1304)	neoclassic%ti_neo%qgi (matflt_type) (7.9.1.1.12)
flux (1304)	neoclassic%ti_neo%flux (matflt_type) (7.9.1.1.12)
off_diagonal (1304)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.1.1.159)
d_ni (1184)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.1.1.6)
d_ti (1184)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.1.1.6)
d_ne (1184)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.1.1.12)
d_te (1184)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.1.1.12)
d_epar (1184)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.1.1.12)
d_mtor (1184)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.1.1.12)
flag (1304)	neoclassic%ti_neo%flag (integer) (7.9.1.1.3)
te_neo (1067)	neoclassic%te_neo (transcoefel) (7.9.1.1.277)
diff_eff (1302)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.1.1.14)
vconv_eff (1302)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.1.1.14)
flux (1302)	neoclassic%te_neo%flux (vecflt_type) (7.9.1.1.14)
off_diagonal (1302)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.1.1.158)
d_ni (1183)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.1.1.12)
d_ti (1183)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.1.1.12)
d_ne (1183)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.1.1.14)
d_te (1183)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.1.1.14)
d_epar (1183)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.1.1.14)
d_mtor (1183)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.1.1.14)
flag (1302)	neoclassic%te_neo%flag (integer) (7.9.1.1.3)
tz_neo (1067)	neoclassic%tz_neo (transcoefimp) (7.9.1.1.278)
diff_eff (1303)	neoclassic%tz_neo%diff_eff (array3dflt_type) (7.9.1.1.6)
vconv_eff (1303)	neoclassic%tz_neo%vconv_eff (array3dflt_type) (7.9.1.1.6)
exchange (1303)	neoclassic%tz_neo%exchange (array3dflt_type) (7.9.1.1.6)
flux (1303)	neoclassic%tz_neo%flux (array3dflt_type) (7.9.1.1.6)
flag (1303)	neoclassic%tz_neo%flag (integer) (7.9.1.1.3)
mtor_neo (1067)	neoclassic%mtor_neo (transcoefel) (7.9.1.1.277)
diff_eff (1302)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.1.1.14)
vconv_eff (1302)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.1.1.14)
flux (1302)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.1.1.14)
off_diagonal (1302)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.1.1.158)
d_ni (1183)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.1.1.12)
d_ti (1183)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.1.1.12)
d_ne (1183)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.1.1.14)
d_te (1183)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.1.1.14)
d_epar (1183)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.1.1.14)
d_mtor (1183)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.1.1.14)
flag (1302)	neoclassic%mtor_neo%flag (integer) (7.9.1.1.3)
sigma (1067)	neoclassic%sigma (vecflt_type) (7.9.1.1.14)
jboot (1067)	neoclassic%jboot (vecflt_type) (7.9.1.1.14)
er (1067)	neoclassic%er (vecflt_type) (7.9.1.1.14)
vpol (1067)	neoclassic%vpol (matflt_type) (7.9.1.1.12)
fext (1067)	neoclassic%fext (array3dflt_type) (7.9.1.1.6)
jext (1067)	neoclassic%jext (vecflt_type) (7.9.1.1.14)
time (1067)	neoclassic%time (float) (7.9.1.1.2)
codeparam (1067)	neoclassic%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	neoclassic%codeparam%codename (string) (7.9.1.1.4)

codeversion (1097)	neoclassic%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	neoclassic%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	neoclassic%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	neoclassic%codeparam%output_flag (integer) (7.9.1.1.3)

7.9.1.2.25 orbit

datainfo (1068)	orbit%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	orbit%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	orbit%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	orbit%datainfo%source (string) (7.9.1.1.4)
comment (1115)	orbit%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	orbit%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	orbit%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	orbit%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	orbit%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	orbit%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	orbit%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	orbit%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	orbit%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	orbit%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	orbit%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	orbit%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	orbit%datainfo%putinfo%rights (string) (7.9.1.1.4)
orbitt_id (1068)	orbit%orbitt_id (orbitt_id) (7.9.1.1.163)
amn (1188)	orbit%orbitt_id%amn (float) (7.9.1.1.2)
zion (1188)	orbit%orbitt_id%zion (float) (7.9.1.1.2)
energy (1188)	orbit%orbitt_id%energy (vecflt_type) (7.9.1.1.14)
magn_mom (1188)	orbit%orbitt_id%magn_mom (vecflt_type) (7.9.1.1.14)
p_phi (1188)	orbit%orbitt_id%p_phi (vecflt_type) (7.9.1.1.14)
sigma (1188)	orbit%orbitt_id%sigma (vecint_type) (7.9.1.1.15)
orb_trace (1068)	orbit%orb_trace (orb_trace) (7.9.1.1.161)
time_orb (1186)	orbit%orb_trace%time_orb (matflt_type) (7.9.1.1.12)
ntorb (1186)	orbit%orb_trace%ntorb (vecint_type) (7.9.1.1.15)
r (1186)	orbit%orb_trace%r (matflt_type) (7.9.1.1.12)
z (1186)	orbit%orb_trace%z (matflt_type) (7.9.1.1.12)
psi (1186)	orbit%orb_trace%psi (matflt_type) (7.9.1.1.12)
theta_b (1186)	orbit%orb_trace%theta_b (matflt_type) (7.9.1.1.12)
v_parallel (1186)	orbit%orb_trace%v_parallel (matflt_type) (7.9.1.1.12)
v_perp (1186)	orbit%orb_trace%v_perp (matflt_type) (7.9.1.1.12)
orb_glob_dat (1068)	orbit%orb_glob_dat (orb_glob_dat) (7.9.1.1.160)
orbit_type (1185)	orbit%orb_glob_dat%orbit_type (vecint_type) (7.9.1.1.15)
omega_b (1185)	orbit%orb_glob_dat%omega_b (vecflt_type) (7.9.1.1.14)
omega_phi (1185)	orbit%orb_glob_dat%omega_phi (vecflt_type) (7.9.1.1.14)
omega_c_av (1185)	orbit%orb_glob_dat%omega_c_av (vecflt_type) (7.9.1.1.14)
special_pos (1185)	orbit%orb_glob_dat%special_pos (special_pos) (7.9.1.1.255)
midplane (1280)	orbit%orb_glob_dat%special_pos%midplane (midplane) (7.9.1.1.153)
outer (1178)	orbit%orb_glob_dat%special_pos%midplane%outer (orbit_pos) (7.9.1.1.162)
r (1187)	orbit%orb_glob_dat%special_pos%midplane%outer%r (vecflt_type) (7.9.1.1.14)
z (1187)	orbit%orb_glob_dat%special_pos%midplane%outer%z (vecflt_type) (7.9.1.1.14)
psi (1187)	orbit%orb_glob_dat%special_pos%midplane%outer%psi (vecflt_type) (7.9.1.1.14)
theta_b (1187)	orbit%orb_glob_dat%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.1.1.14)
inner (1178)	orbit%orb_glob_dat%special_pos%midplane%inner (orbit_pos) (7.9.1.1.162)
r (1187)	orbit%orb_glob_dat%special_pos%midplane%inner%r (vecflt_type) (7.9.1.1.14)
z (1187)	orbit%orb_glob_dat%special_pos%midplane%inner%z (vecflt_type) (7.9.1.1.14)
psi (1187)	orbit%orb_glob_dat%special_pos%midplane%inner%psi (vecflt_type) (7.9.1.1.14)
theta_b (1187)	orbit%orb_glob_dat%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.1.1.14)
turning_pts (1280)	orbit%orb_glob_dat%special_pos%turning_pts (turning_pts) (7.9.1.1.283)
upper (1308)	orbit%orb_glob_dat%special_pos%turning_pts%upper (orbit_pos) (7.9.1.1.162)
r (1187)	orbit%orb_glob_dat%special_pos%turning_pts%upper%r (vecflt_type) (7.9.1.1.14)
z (1187)	orbit%orb_glob_dat%special_pos%turning_pts%upper%z (vecflt_type) (7.9.1.1.14)

psi (1187)	orbit%orb_glob_dat%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.1.1.14)
theta_b (1187)	orbit%orb_glob_dat%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.1.1.14)
lower (1308)	orbit%orb_glob_dat%special_pos%turning_pts%lower (orbit_pos) (7.9.1.1.162)
r (1187)	orbit%orb_glob_dat%special_pos%turning_pts%lower%r (vecflt_type) (7.9.1.1.14)
z (1187)	orbit%orb_glob_dat%special_pos%turning_pts%lower%z (vecflt_type) (7.9.1.1.14)
psi (1187)	orbit%orb_glob_dat%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.1.1.14)
theta_b (1187)	orbit%orb_glob_dat%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.1.1.14)
codeparam (1068)	orbit%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	orbit%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	orbit%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	orbit%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	orbit%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	orbit%codeparam%output_flag (integer) (7.9.1.1.3)
time (1068)	orbit%time (float) (7.9.1.1.2)

7.9.1.2.26 pfsystems

datainfo (1069)	pfsystems%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	pfsystems%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	pfsystems%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	pfsystems%datainfo%source (string) (7.9.1.1.4)
comment (1115)	pfsystems%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	pfsystems%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	pfsystems%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	pfsystems%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	pfsystems%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	pfsystems%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	pfsystems%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	pfsystems%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	pfsystems%datainfo%putinfo%rights (string) (7.9.1.1.4)
pfcoils (1069)	pfsystems%pfcoils (pfcoils) (7.9.1.1.167)
desc_pfcoils (1192)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.1.1.93)
name (1118)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.1.1.16)
id (1118)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.1.1.16)
res (1118)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.1.1.14)
emax (1118)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.1.1.14)
nelement (1118)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.1.1.15)
pfelement (1118)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.1.1.168)
name (1193)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.1.1.16)
id (1193)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.1.1.16)
turnsign (1193)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.1.1.12)
area (1193)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.1.1.12)
pfgeometry (1193)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.1.1.169)
type (1194)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.1.1.13)
npoints (1194)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.1.1.13)
rzcoordinate (1194)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.1.1.214)
r (1239)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.1.1.6)
z (1239)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.1.1.6)
rzdrdz (1194)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.1.1.6)
coilcurrent (1192)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.1.1.128)
value (1153)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.1.1.14)
coilvoltage (1192)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.1.1.128)
value (1153)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.1.1.14)

abserror (1153)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.1.1.14)
pfpassive (1069)	pfsystems%pfpassive (pfpassive) (7.9.1.1.171)
area (1196)	pfsystems%pfpassive%area (vecflt_type) (7.9.1.1.14)
res (1196)	pfsystems%pfpassive%res (vecflt_type) (7.9.1.1.14)
pfpageometry (1196)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.1.1.170)
type (1195)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.1.1.15)
npoints (1195)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.1.1.15)
rzcoordinate (1195)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.1.1.213)
r (1238)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.1.1.12)
z (1238)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.1.1.12)
rzdrdz (1195)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.1.1.12)
pfcircuits (1069)	pfsystems%pfcircuits (pfcircuits) (7.9.1.1.166)
name (1191)	pfsystems%pfcircuits%name (vecstring_type) (7.9.1.1.16)
id (1191)	pfsystems%pfcircuits%id (vecstring_type) (7.9.1.1.16)
type (1191)	pfsystems%pfcircuits%type (vecstring_type) (7.9.1.1.16)
nnodes (1191)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.1.1.15)
connections (1191)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.1.1.7)
pfsupplies (1069)	pfsystems%pfsupplies (pfsupplies) (7.9.1.1.172)
desc_supply (1197)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.1.1.94)
name (1119)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.1.1.16)
id (1119)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.1.1.16)
type (1119)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.1.1.16)
delay (1119)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.1.1.14)
filter (1119)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.1.1.130)
num (1155)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.1.1.12)
den (1155)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.1.1.12)
imin (1119)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.1.1.14)
imax (1119)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.1.1.14)
res (1119)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.1.1.14)
umin (1119)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.1.1.14)
umax (1119)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.1.1.14)
emax (1119)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.1.1.14)
voltage (1197)	pfsystems%pfsupplies%voltage (exp1D) (7.9.1.1.128)
value (1153)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.1.1.14)
current (1197)	pfsystems%pfsupplies%current (exp1D) (7.9.1.1.128)
value (1153)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.1.1.14)
time (1069)	pfsystems%time (float) (7.9.1.1.2)

7.9.1.2.27 polardiag

datainfo (1172)	lineintegraldiag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	lineintegraldiag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	lineintegraldiag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	lineintegraldiag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	lineintegraldiag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	lineintegraldiag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	lineintegraldiag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	lineintegraldiag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)

rights (1209)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.1.1.4)
expression (1172)	lineintegraldiag%expression (string) (7.9.1.1.4)
setup_line (1172)	lineintegraldiag%setup_line (setup_line) (7.9.1.1.245)
pivot_point (1270)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.1.1.14)
horchordang1 (1270)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.1.1.14)
verchordang1 (1270)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.1.1.14)
width (1270)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.1.1.14)
second_point (1270)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.1.1.14)
horchordang2 (1270)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.1.1.14)
verchordang2 (1270)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.1.1.14)
third_point (1270)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.1.1.215)
r (1240)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.1.1.14)
z (1240)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.1.1.14)
phi (1240)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.1.1.14)
nchordpoints (1270)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.1.1.3)
measure (1172)	lineintegraldiag%measure (exp1D) (7.9.1.1.128)
value (1153)	lineintegraldiag%measure%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.1.1.14)
time (1172)	lineintegraldiag%time (float) (7.9.1.1.2)

7.9.1.2.28 reference

datainfo (1071)	reference%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	reference%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	reference%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	reference%datainfo%source (string) (7.9.1.1.4)
comment (1115)	reference%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	reference%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	reference%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	reference%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	reference%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	reference%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	reference%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	reference%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	reference%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	reference%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	reference%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	reference%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	reference%datainfo%putinfo%rights (string) (7.9.1.1.4)
non_timed (1071)	reference%non_timed (ref_nt) (7.9.1.1.188)
zerod_real (1213)	reference%non_timed%zerod_real (ref_nt_0dr) (7.9.1.1.191)
ref1 (1216)	reference%non_timed%zerod_real%ref1 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref1%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref1%description (string) (7.9.1.1.4)
ref2 (1216)	reference%non_timed%zerod_real%ref2 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref2%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref2%description (string) (7.9.1.1.4)
ref3 (1216)	reference%non_timed%zerod_real%ref3 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref3%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref3%description (string) (7.9.1.1.4)
ref4 (1216)	reference%non_timed%zerod_real%ref4 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref4%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref4%description (string) (7.9.1.1.4)
ref5 (1216)	reference%non_timed%zerod_real%ref5 (ref_nt_0dr_ref) (7.9.1.1.192)

value (1217)	reference%non_timed%zerod_real%ref5%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref5%description (string) (7.9.1.1.4)
ref6 (1216)	reference%non_timed%zerod_real%ref6 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref6%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref6%description (string) (7.9.1.1.4)
ref7 (1216)	reference%non_timed%zerod_real%ref7 (ref_nt_0dr_ref) (7.9.1.1.192)
value (1217)	reference%non_timed%zerod_real%ref7%value (float) (7.9.1.1.2)
description (1217)	reference%non_timed%zerod_real%ref7%description (string) (7.9.1.1.4)
zerod_int (1213)	reference%non_timed%zerod_int (ref_nt_0di) (7.9.1.1.189)
ref1 (1214)	reference%non_timed%zerod_int%ref1 (ref_nt_0di_ref) (7.9.1.1.190)
value (1215)	reference%non_timed%zerod_int%ref1%value (integer) (7.9.1.1.3)
description (1215)	reference%non_timed%zerod_int%ref1%description (string) (7.9.1.1.4)
ref2 (1214)	reference%non_timed%zerod_int%ref2 (ref_nt_0di_ref) (7.9.1.1.190)
value (1215)	reference%non_timed%zerod_int%ref2%value (integer) (7.9.1.1.3)
description (1215)	reference%non_timed%zerod_int%ref2%description (string) (7.9.1.1.4)
ref3 (1214)	reference%non_timed%zerod_int%ref3 (ref_nt_0di_ref) (7.9.1.1.190)
value (1215)	reference%non_timed%zerod_int%ref3%value (integer) (7.9.1.1.3)
description (1215)	reference%non_timed%zerod_int%ref3%description (string) (7.9.1.1.4)
ref4 (1214)	reference%non_timed%zerod_int%ref4 (ref_nt_0di_ref) (7.9.1.1.190)
value (1215)	reference%non_timed%zerod_int%ref4%value (integer) (7.9.1.1.3)
description (1215)	reference%non_timed%zerod_int%ref4%description (string) (7.9.1.1.4)
zerod_string (1213)	reference%non_timed%zerod_string (ref_nt_0ds) (7.9.1.1.193)
ref1 (1218)	reference%non_timed%zerod_string%ref1 (ref_nt_0ds_ref) (7.9.1.1.194)
value (1219)	reference%non_timed%zerod_string%ref1%value (string) (7.9.1.1.4)
description (1219)	reference%non_timed%zerod_string%ref1%description (string) (7.9.1.1.4)
ref2 (1218)	reference%non_timed%zerod_string%ref2 (ref_nt_0ds_ref) (7.9.1.1.194)
value (1219)	reference%non_timed%zerod_string%ref2%value (string) (7.9.1.1.4)
description (1219)	reference%non_timed%zerod_string%ref2%description (string) (7.9.1.1.4)
oned_real (1213)	reference%non_timed%oned_real (ref_nt_1dr) (7.9.1.1.197)
ref1 (1222)	reference%non_timed%oned_real%ref1 (ref_nt_1dr_ref) (7.9.1.1.198)
value (1223)	reference%non_timed%oned_real%ref1%value (vecflt_type) (7.9.1.1.14)
description (1223)	reference%non_timed%oned_real%ref1%description (string) (7.9.1.1.4)
ref2 (1222)	reference%non_timed%oned_real%ref2 (ref_nt_1dr_ref) (7.9.1.1.198)
value (1223)	reference%non_timed%oned_real%ref2%value (vecflt_type) (7.9.1.1.14)
description (1223)	reference%non_timed%oned_real%ref2%description (string) (7.9.1.1.4)
ref3 (1222)	reference%non_timed%oned_real%ref3 (ref_nt_1dr_ref) (7.9.1.1.198)
value (1223)	reference%non_timed%oned_real%ref3%value (vecflt_type) (7.9.1.1.14)
description (1223)	reference%non_timed%oned_real%ref3%description (string) (7.9.1.1.4)
ref4 (1222)	reference%non_timed%oned_real%ref4 (ref_nt_1dr_ref) (7.9.1.1.198)
value (1223)	reference%non_timed%oned_real%ref4%value (vecflt_type) (7.9.1.1.14)
description (1223)	reference%non_timed%oned_real%ref4%description (string) (7.9.1.1.4)
ref5 (1222)	reference%non_timed%oned_real%ref5 (ref_nt_1dr_ref) (7.9.1.1.198)
value (1223)	reference%non_timed%oned_real%ref5%value (vecflt_type) (7.9.1.1.14)
description (1223)	reference%non_timed%oned_real%ref5%description (string) (7.9.1.1.4)
oned_int (1213)	reference%non_timed%oned_int (ref_nt_1di) (7.9.1.1.195)
ref1 (1220)	reference%non_timed%oned_int%ref1 (ref_nt_1di_ref) (7.9.1.1.196)
value (1221)	reference%non_timed%oned_int%ref1%value (vecint_type) (7.9.1.1.15)
description (1221)	reference%non_timed%oned_int%ref1%description (string) (7.9.1.1.4)
ref2 (1220)	reference%non_timed%oned_int%ref2 (ref_nt_1di_ref) (7.9.1.1.196)
value (1221)	reference%non_timed%oned_int%ref2%value (vecint_type) (7.9.1.1.15)
description (1221)	reference%non_timed%oned_int%ref2%description (string) (7.9.1.1.4)
ref3 (1220)	reference%non_timed%oned_int%ref3 (ref_nt_1di_ref) (7.9.1.1.196)
value (1221)	reference%non_timed%oned_int%ref3%value (vecint_type) (7.9.1.1.15)
description (1221)	reference%non_timed%oned_int%ref3%description (string) (7.9.1.1.4)
ref4 (1220)	reference%non_timed%oned_int%ref4 (ref_nt_1di_ref) (7.9.1.1.196)
value (1221)	reference%non_timed%oned_int%ref4%value (vecint_type) (7.9.1.1.15)
description (1221)	reference%non_timed%oned_int%ref4%description (string) (7.9.1.1.4)
timed (1071)	reference%timed (ref_t) (7.9.1.1.199)
zerod_real (1224)	reference%timed%zerod_real (ref_t_0dr) (7.9.1.1.202)
ref1 (1227)	reference%timed%zerod_real%ref1 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref1%value (float) (7.9.1.1.2)

description (1228)	reference%timed%zerod_real%ref1%description (string) (7.9.1.1.4)
ref2 (1227)	reference%timed%zerod_real%ref2 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref2%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref2%description (string) (7.9.1.1.4)
ref3 (1227)	reference%timed%zerod_real%ref3 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref3%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref3%description (string) (7.9.1.1.4)
ref4 (1227)	reference%timed%zerod_real%ref4 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref4%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref4%description (string) (7.9.1.1.4)
ref5 (1227)	reference%timed%zerod_real%ref5 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref5%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref5%description (string) (7.9.1.1.4)
ref6 (1227)	reference%timed%zerod_real%ref6 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref6%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref6%description (string) (7.9.1.1.4)
ref7 (1227)	reference%timed%zerod_real%ref7 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref7%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref7%description (string) (7.9.1.1.4)
ref8 (1227)	reference%timed%zerod_real%ref8 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref8%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref8%description (string) (7.9.1.1.4)
ref9 (1227)	reference%timed%zerod_real%ref9 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref9%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref9%description (string) (7.9.1.1.4)
ref10 (1227)	reference%timed%zerod_real%ref10 (ref_t_0dr_ref) (7.9.1.1.203)
value (1228)	reference%timed%zerod_real%ref10%value (float) (7.9.1.1.2)
description (1228)	reference%timed%zerod_real%ref10%description (string) (7.9.1.1.4)
zerod_int (1224)	reference%timed%zerod_int (ref_t_0di) (7.9.1.1.200)
ref1 (1225)	reference%timed%zerod_int%ref1 (ref_t_0di_ref) (7.9.1.1.201)
value (1226)	reference%timed%zerod_int%ref1%value (integer) (7.9.1.1.3)
description (1226)	reference%timed%zerod_int%ref1%description (string) (7.9.1.1.4)
ref2 (1225)	reference%timed%zerod_int%ref2 (ref_t_0di_ref) (7.9.1.1.201)
value (1226)	reference%timed%zerod_int%ref2%value (integer) (7.9.1.1.3)
description (1226)	reference%timed%zerod_int%ref2%description (string) (7.9.1.1.4)
ref3 (1225)	reference%timed%zerod_int%ref3 (ref_t_0di_ref) (7.9.1.1.201)
value (1226)	reference%timed%zerod_int%ref3%value (integer) (7.9.1.1.3)
description (1226)	reference%timed%zerod_int%ref3%description (string) (7.9.1.1.4)
ref4 (1225)	reference%timed%zerod_int%ref4 (ref_t_0di_ref) (7.9.1.1.201)
value (1226)	reference%timed%zerod_int%ref4%value (integer) (7.9.1.1.3)
description (1226)	reference%timed%zerod_int%ref4%description (string) (7.9.1.1.4)
oned_real (1224)	reference%timed%oned_real (ref_t_1dr) (7.9.1.1.206)
ref1 (1231)	reference%timed%oned_real%ref1 (ref_t_1dr_ref) (7.9.1.1.207)
value (1232)	reference%timed%oned_real%ref1%value (vecflt_type) (7.9.1.1.14)
description (1232)	reference%timed%oned_real%ref1%description (string) (7.9.1.1.4)
ref2 (1231)	reference%timed%oned_real%ref2 (ref_t_1dr_ref) (7.9.1.1.207)
value (1232)	reference%timed%oned_real%ref2%value (vecflt_type) (7.9.1.1.14)
description (1232)	reference%timed%oned_real%ref2%description (string) (7.9.1.1.4)
ref3 (1231)	reference%timed%oned_real%ref3 (ref_t_1dr_ref) (7.9.1.1.207)
value (1232)	reference%timed%oned_real%ref3%value (vecflt_type) (7.9.1.1.14)
description (1232)	reference%timed%oned_real%ref3%description (string) (7.9.1.1.4)
ref4 (1231)	reference%timed%oned_real%ref4 (ref_t_1dr_ref) (7.9.1.1.207)
value (1232)	reference%timed%oned_real%ref4%value (vecflt_type) (7.9.1.1.14)
description (1232)	reference%timed%oned_real%ref4%description (string) (7.9.1.1.4)
ref5 (1231)	reference%timed%oned_real%ref5 (ref_t_1dr_ref) (7.9.1.1.207)
value (1232)	reference%timed%oned_real%ref5%value (vecflt_type) (7.9.1.1.14)
description (1232)	reference%timed%oned_real%ref5%description (string) (7.9.1.1.4)
oned_int (1224)	reference%timed%oned_int (ref_t_1di) (7.9.1.1.204)
ref1 (1229)	reference%timed%oned_int%ref1 (ref_t_1di_ref) (7.9.1.1.205)
value (1230)	reference%timed%oned_int%ref1%value (vecint_type) (7.9.1.1.15)
description (1230)	reference%timed%oned_int%ref1%description (string) (7.9.1.1.4)

ref2 (1229)	reference%timed%oned_int%ref2 (ref_t_1di_ref) (7.9.1.1.205)
value (1230)	reference%timed%oned_int%ref2%value (vecint_type) (7.9.1.1.15)
description (1230)	reference%timed%oned_int%ref2%description (string) (7.9.1.1.4)
ref3 (1229)	reference%timed%oned_int%ref3 (ref_t_1di_ref) (7.9.1.1.205)
value (1230)	reference%timed%oned_int%ref3%value (vecint_type) (7.9.1.1.15)
description (1230)	reference%timed%oned_int%ref3%description (string) (7.9.1.1.4)
ref4 (1229)	reference%timed%oned_int%ref4 (ref_t_1di_ref) (7.9.1.1.205)
value (1230)	reference%timed%oned_int%ref4%value (vecint_type) (7.9.1.1.15)
description (1230)	reference%timed%oned_int%ref4%description (string) (7.9.1.1.4)
time (1071)	reference%time (float) (7.9.1.1.2)

7.9.1.2.29 sawteeth

datainfo (1072)	sawteeth%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	sawteeth%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	sawteeth%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	sawteeth%datainfo%source (string) (7.9.1.1.4)
comment (1115)	sawteeth%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	sawteeth%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	sawteeth%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	sawteeth%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	sawteeth%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	sawteeth%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	sawteeth%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	sawteeth%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	sawteeth%datainfo%putinfo%rights (string) (7.9.1.1.4)
crash_trig (1072)	sawteeth%crash_trig (integer) (7.9.1.1.3)
composition (1072)	sawteeth%composition (composition) (7.9.1.1.74)
amn (1099)	sawteeth%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	sawteeth%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	sawteeth%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	sawteeth%composition%imp_flag (vecint_type) (7.9.1.1.15)
rho_tor_norm (1072)	sawteeth%rho_tor_norm (vecflt_type) (7.9.1.1.14)
rho_tor (1072)	sawteeth%rho_tor (vecflt_type) (7.9.1.1.14)
profiles1d (1072)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.1.1.220)
ne (1245)	sawteeth%profiles1d%ne (vecflt_type) (7.9.1.1.14)
ni (1245)	sawteeth%profiles1d%ni (matflt_type) (7.9.1.1.12)
te (1245)	sawteeth%profiles1d%te (vecflt_type) (7.9.1.1.14)
ti (1245)	sawteeth%profiles1d%ti (matflt_type) (7.9.1.1.12)
psi (1245)	sawteeth%profiles1d%psi (vecflt_type) (7.9.1.1.14)
phi (1245)	sawteeth%profiles1d%phi (vecflt_type) (7.9.1.1.14)
psistar (1245)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.1.1.14)
volume (1245)	sawteeth%profiles1d%volume (vecflt_type) (7.9.1.1.14)
q (1245)	sawteeth%profiles1d%q (vecflt_type) (7.9.1.1.14)
diags (1072)	sawteeth%diags (sawteeth_diags) (7.9.1.1.219)
shear1 (1244)	sawteeth%diags%shear1 (float) (7.9.1.1.2)
rhotorn_q1 (1244)	sawteeth%diags%rhotorn_q1 (float) (7.9.1.1.2)
rhotorn_inv (1244)	sawteeth%diags%rhotorn_inv (float) (7.9.1.1.2)
rhotorn_mix (1244)	sawteeth%diags%rhotorn_mix (float) (7.9.1.1.2)
codeparam (1072)	sawteeth%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	sawteeth%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	sawteeth%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	sawteeth%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	sawteeth%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	sawteeth%codeparam%output_flag (integer) (7.9.1.1.3)
time (1072)	sawteeth%time (float) (7.9.1.1.2)

7.9.1.2.30 scenario

datainfo (1073)	scenario%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	scenario%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	scenario%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	scenario%datainfo%source (string) (7.9.1.1.4)
comment (1115)	scenario%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	scenario%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	scenario%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	scenario%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	scenario%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	scenario%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	scenario%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	scenario%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	scenario%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	scenario%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	scenario%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	scenario%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	scenario%datainfo%putinfo%rights (string) (7.9.1.1.4)
centre (1073)	scenario%centre (scenario_centre) (7.9.1.1.221)
te0 (1246)	scenario%centre%te0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%te0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%te0%source (string) (7.9.1.1.4)
ti0 (1246)	scenario%centre%ti0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%ti0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%ti0%source (string) (7.9.1.1.4)
ne0 (1246)	scenario%centre%ne0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%ne0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%ne0%source (string) (7.9.1.1.4)
ni0 (1246)	scenario%centre%ni0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%ni0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%ni0%source (string) (7.9.1.1.4)
shift0 (1246)	scenario%centre%shift0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%shift0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%shift0%source (string) (7.9.1.1.4)
psi0 (1246)	scenario%centre%psi0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%psi0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%psi0%source (string) (7.9.1.1.4)
phi0 (1246)	scenario%centre%phi0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%phi0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%phi0%source (string) (7.9.1.1.4)
q0 (1246)	scenario%centre%q0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%q0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%q0%source (string) (7.9.1.1.4)
Rmag (1246)	scenario%centre%Rmag (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%Rmag%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%Rmag%source (string) (7.9.1.1.4)
Zmag (1246)	scenario%centre%Zmag (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%Zmag%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%Zmag%source (string) (7.9.1.1.4)
vtor_0 (1246)	scenario%centre%vtor_0 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%centre%vtor_0%value (float) (7.9.1.1.2)
source (1263)	scenario%centre%vtor_0%source (string) (7.9.1.1.4)
composition (1073)	scenario%composition (scenario_composition) (7.9.1.1.222)
amn (1247)	scenario%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1247)	scenario%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1247)	scenario%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1247)	scenario%composition%imp_flag (vecint_type) (7.9.1.1.15)
rot_imp_flag (1247)	scenario%composition%rot_imp_flag (vecint_type) (7.9.1.1.15)
pellet_amn (1247)	scenario%composition%pellet_amn (vecflt_type) (7.9.1.1.14)
pellet_zn (1247)	scenario%composition%pellet_zn (vecflt_type) (7.9.1.1.14)
nbi_amn (1247)	scenario%composition%nbi_amn (vecflt_type) (7.9.1.1.14)

nbi_zn (1247)	scenario%composition%nbi_zn (vecflt_type) (7.9.1.1.14)
configs (1073)	scenario%configs (scenario_configuration) (7.9.1.1.223)
config (1248)	scenario%configs%config (scenario_int) (7.9.1.1.230)
value (1255)	scenario%configs%config%value (integer) (7.9.1.1.3)
source (1255)	scenario%configs%config%source (string) (7.9.1.1.4)
lmode_sc (1248)	scenario%configs%lmode_sc (string) (7.9.1.1.4)
hmode_sc (1248)	scenario%configs%hmode_sc (string) (7.9.1.1.4)
core_sc (1248)	scenario%configs%core_sc (string) (7.9.1.1.4)
pedestal_sc (1248)	scenario%configs%pedestal_sc (string) (7.9.1.1.4)
helium_sc (1248)	scenario%configs%helium_sc (string) (7.9.1.1.4)
impurity_sc (1248)	scenario%configs%impurity_sc (string) (7.9.1.1.4)
l2h_sc (1248)	scenario%configs%l2h_sc (string) (7.9.1.1.4)
tor_rot_sc (1248)	scenario%configs%tor_rot_sc (string) (7.9.1.1.4)
wall_mat (1248)	scenario%configs%wall_mat (string) (7.9.1.1.4)
evap_mat (1248)	scenario%configs%evap_mat (string) (7.9.1.1.4)
lim_mat (1248)	scenario%configs%lim_mat (string) (7.9.1.1.4)
div_mat (1248)	scenario%configs%div_mat (string) (7.9.1.1.4)
coordinate (1248)	scenario%configs%coordinate (string) (7.9.1.1.4)
ecrh_freq (1248)	scenario%configs%ecrh_freq (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%ecrh_freq%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%ecrh_freq%source (string) (7.9.1.1.4)
ecrh_loc (1248)	scenario%configs%ecrh_loc (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%ecrh_loc%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%ecrh_loc%source (string) (7.9.1.1.4)
ecrh_mode (1248)	scenario%configs%ecrh_mode (scenario_int) (7.9.1.1.230)
value (1255)	scenario%configs%ecrh_mode%value (integer) (7.9.1.1.3)
source (1255)	scenario%configs%ecrh_mode%source (string) (7.9.1.1.4)
ecrh_tor_ang (1248)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%ecrh_tor_ang%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%ecrh_tor_ang%source (string) (7.9.1.1.4)
ecrh_pol_ang (1248)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%ecrh_pol_ang%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%ecrh_pol_ang%source (string) (7.9.1.1.4)
ecrh_harm (1248)	scenario%configs%ecrh_harm (scenario_int) (7.9.1.1.230)
value (1255)	scenario%configs%ecrh_harm%value (integer) (7.9.1.1.3)
source (1255)	scenario%configs%ecrh_harm%source (string) (7.9.1.1.4)
enbi (1248)	scenario%configs%enbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%enbi%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%enbi%source (string) (7.9.1.1.4)
r_nbi (1248)	scenario%configs%r_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%r_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%r_nbi%source (string) (7.9.1.1.4)
grad_b_drift (1248)	scenario%configs%grad_b_drift (scenario_int) (7.9.1.1.230)
value (1255)	scenario%configs%grad_b_drift%value (integer) (7.9.1.1.3)
source (1255)	scenario%configs%grad_b_drift%source (string) (7.9.1.1.4)
icrh_freq (1248)	scenario%configs%icrh_freq (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%icrh_freq%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%icrh_freq%source (string) (7.9.1.1.4)
icrh_scheme (1248)	scenario%configs%icrh_scheme (string) (7.9.1.1.4)
icrh_phase (1248)	scenario%configs%icrh_phase (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%icrh_phase%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%icrh_phase%source (string) (7.9.1.1.4)
LH_freq (1248)	scenario%configs%LH_freq (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%LH_freq%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%LH_freq%source (string) (7.9.1.1.4)
LH_npar (1248)	scenario%configs%LH_npar (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%LH_npar%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%LH_npar%source (string) (7.9.1.1.4)
pellet_ang (1248)	scenario%configs%pellet_ang (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%pellet_ang%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%pellet_ang%source (string) (7.9.1.1.4)

pellet_v (1248)	scenario%configs%pellet_v (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%pellet_v%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%pellet_v%source (string) (7.9.1.1.4)
pellet_nba (1248)	scenario%configs%pellet_nba (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%configs%pellet_nba%value (float) (7.9.1.1.2)
source (1263)	scenario%configs%pellet_nba%source (string) (7.9.1.1.4)
confinement (1073)	scenario%confinement (scenario_confinement) (7.9.1.1.224)
tau_e (1249)	scenario%confinement%tau_e (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_e%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_e%source (string) (7.9.1.1.4)
tau_l_sc (1249)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_l_sc%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_l_sc%source (string) (7.9.1.1.4)
tau_h_sc (1249)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_h_sc%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_h_sc%source (string) (7.9.1.1.4)
tau_he (1249)	scenario%confinement%tau_he (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_he%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_he%source (string) (7.9.1.1.4)
tau_e_ee (1249)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_e_ee%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_e_ee%source (string) (7.9.1.1.4)
tau_e_ii (1249)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_e_ii%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_e_ii%source (string) (7.9.1.1.4)
tau_e_ei (1249)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_e_ei%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_e_ei%source (string) (7.9.1.1.4)
tau_cur_diff (1249)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_cur_diff%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_cur_diff%source (string) (7.9.1.1.4)
tau_i_rol (1249)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%confinement%tau_i_rol%value (float) (7.9.1.1.2)
source (1263)	scenario%confinement%tau_i_rol%source (string) (7.9.1.1.4)
currents (1073)	scenario%currents (scenario_currents) (7.9.1.1.225)
RR (1250)	scenario%currents%RR (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%RR%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%RR%source (string) (7.9.1.1.4)
i_align (1250)	scenario%currents%i_align (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_align%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_align%source (string) (7.9.1.1.4)
i_boot (1250)	scenario%currents%i_boot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_boot%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_boot%source (string) (7.9.1.1.4)
i_cd_tot (1250)	scenario%currents%i_cd_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_cd_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_cd_tot%source (string) (7.9.1.1.4)
i_eccd (1250)	scenario%currents%i_eccd (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_eccd%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_eccd%source (string) (7.9.1.1.4)
i_fast_ion (1250)	scenario%currents%i_fast_ion (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_fast_ion%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_fast_ion%source (string) (7.9.1.1.4)
i_fwcd (1250)	scenario%currents%i_fwcd (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_fwcd%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_fwcd%source (string) (7.9.1.1.4)
i_lhcd (1250)	scenario%currents%i_lhcd (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_lhcd%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_lhcd%source (string) (7.9.1.1.4)
i_nbicd (1250)	scenario%currents%i_nbicd (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_nbicd%value (float) (7.9.1.1.2)

source (1263)	scenario%currents%i_nbicd%source (string) (7.9.1.1.4)
i_ni_tot (1250)	scenario%currents%i_ni_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_ni_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_ni_tot%source (string) (7.9.1.1.4)
i_ohm (1250)	scenario%currents%i_ohm (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_ohm%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_ohm%source (string) (7.9.1.1.4)
i_par (1250)	scenario%currents%i_par (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_par%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_par%source (string) (7.9.1.1.4)
i_runaway (1250)	scenario%currents%i_runaway (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%i_runaway%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%i_runaway%source (string) (7.9.1.1.4)
v_loop (1250)	scenario%currents%v_loop (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%v_loop%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%v_loop%source (string) (7.9.1.1.4)
v_meas (1250)	scenario%currents%v_meas (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%currents%v_meas%value (float) (7.9.1.1.2)
source (1263)	scenario%currents%v_meas%source (string) (7.9.1.1.4)
edge (1073)	scenario%edge (scenario_edge) (7.9.1.1.226)
te_edge (1251)	scenario%edge%te_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%te_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%te_edge%source (string) (7.9.1.1.4)
ti_edge (1251)	scenario%edge%ti_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%ti_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%ti_edge%source (string) (7.9.1.1.4)
ne_edge (1251)	scenario%edge%ne_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%ne_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%ne_edge%source (string) (7.9.1.1.4)
ni_edge (1251)	scenario%edge%ni_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%ni_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%ni_edge%source (string) (7.9.1.1.4)
psi_edge (1251)	scenario%edge%psi_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%psi_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%psi_edge%source (string) (7.9.1.1.4)
phi_edge (1251)	scenario%edge%phi_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%phi_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%phi_edge%source (string) (7.9.1.1.4)
rho_edge (1251)	scenario%edge%rho_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%rho_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%rho_edge%source (string) (7.9.1.1.4)
drho_edge_dt (1251)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%drho_edge_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%drho_edge_dt%source (string) (7.9.1.1.4)
q_edge (1251)	scenario%edge%q_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%q_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%q_edge%source (string) (7.9.1.1.4)
neutral_flux (1251)	scenario%edge%neutral_flux (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%neutral_flux%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%neutral_flux%source (string) (7.9.1.1.4)
phi_plasma (1251)	scenario%edge%phi_plasma (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%phi_plasma%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%phi_plasma%source (string) (7.9.1.1.4)
vtor_edge (1251)	scenario%edge%vtor_edge (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%edge%vtor_edge%value (float) (7.9.1.1.2)
source (1263)	scenario%edge%vtor_edge%source (string) (7.9.1.1.4)
energy (1073)	scenario%energy (scenario_energy) (7.9.1.1.227)
w_tot (1252)	scenario%energy%w_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%w_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%w_tot%source (string) (7.9.1.1.4)
w_b_pol (1252)	scenario%energy%w_b_pol (scenario_ref) (7.9.1.1.238)

value (1263)	scenario%energy%w_b_pol%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%w_b_pol%source (string) (7.9.1.1.4)
w_dia (1252)	scenario%energy%w_dia (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%w_dia%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%w_dia%source (string) (7.9.1.1.4)
dwdia_dt (1252)	scenario%energy%dwdia_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%dwdia_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%dwdia_dt%source (string) (7.9.1.1.4)
w_b_tor_pla (1252)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%w_b_tor_pla%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%w_b_tor_pla%source (string) (7.9.1.1.4)
w_th (1252)	scenario%energy%w_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%w_th%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%w_th%source (string) (7.9.1.1.4)
dwtot_dt (1252)	scenario%energy%dwtot_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%dwtot_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%dwtot_dt%source (string) (7.9.1.1.4)
dwbpol_dt (1252)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%dwbpol_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%dwbpol_dt%source (string) (7.9.1.1.4)
dwbtorpla_dt (1252)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%dwbtorpla_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%dwbtorpla_dt%source (string) (7.9.1.1.4)
dwth_dt (1252)	scenario%energy%dwth_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%dwth_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%dwth_dt%source (string) (7.9.1.1.4)
esup_icrhtot (1252)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_icrhtot%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_icrhtot%source (string) (7.9.1.1.4)
esup_icrhper (1252)	scenario%energy%esup_icrhper (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_icrhper%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_icrhper%source (string) (7.9.1.1.4)
esup_nbitot (1252)	scenario%energy%esup_nbitot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_nbitot%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_nbitot%source (string) (7.9.1.1.4)
esup_nbiperp (1252)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_nbiperp%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_nbiperp%source (string) (7.9.1.1.4)
esup_lhcd (1252)	scenario%energy%esup_lhcd (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_lhcd%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_lhcd%source (string) (7.9.1.1.4)
esup_alpha (1252)	scenario%energy%esup_alpha (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%energy%esup_alpha%value (float) (7.9.1.1.2)
source (1263)	scenario%energy%esup_alpha%source (string) (7.9.1.1.4)
eqgeometry (1073)	scenario%eqgeometry (eqgeometry) (7.9.1.1.124)
source (1149)	scenario%eqgeometry%source (string) (7.9.1.1.4)
boundarytype (1149)	scenario%eqgeometry%boundarytype (integer) (7.9.1.1.3)
boundary (1149)	scenario%eqgeometry%boundary (rz1D_npoints) (7.9.1.1.212)
r (1237)	scenario%eqgeometry%boundary%r (vecflt_type) (7.9.1.1.14)
z (1237)	scenario%eqgeometry%boundary%z (vecflt_type) (7.9.1.1.14)
npoints (1237)	scenario%eqgeometry%boundary%npoints (integer) (7.9.1.1.3)
geom_axis (1149)	scenario%eqgeometry%geom_axis (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%geom_axis%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%geom_axis%z (float) (7.9.1.1.2)
a_minor (1149)	scenario%eqgeometry%a_minor (float) (7.9.1.1.2)
elongation (1149)	scenario%eqgeometry%elongation (float) (7.9.1.1.2)
tria_upper (1149)	scenario%eqgeometry%tria_upper (float) (7.9.1.1.2)
tria_lower (1149)	scenario%eqgeometry%tria_lower (float) (7.9.1.1.2)
xpts (1149)	scenario%eqgeometry%xpts (rz1D) (7.9.1.1.211)
r (1236)	scenario%eqgeometry%xpts%r (vecflt_type) (7.9.1.1.14)
z (1236)	scenario%eqgeometry%xpts%z (vecflt_type) (7.9.1.1.14)

left_low_st (1149)	scenario%eqgeometry%left_low_st (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%left_low_st%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%left_low_st%z (float) (7.9.1.1.2)
right_low_st (1149)	scenario%eqgeometry%right_low_st (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%right_low_st%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%right_low_st%z (float) (7.9.1.1.2)
left_up_st (1149)	scenario%eqgeometry%left_up_st (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%left_up_st%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%left_up_st%z (float) (7.9.1.1.2)
right_up_st (1149)	scenario%eqgeometry%right_up_st (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%right_up_st%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%right_up_st%z (float) (7.9.1.1.2)
active_limit (1149)	scenario%eqgeometry%active_limit (rz0D) (7.9.1.1.210)
r (1235)	scenario%eqgeometry%active_limit%r (float) (7.9.1.1.2)
z (1235)	scenario%eqgeometry%active_limit%z (float) (7.9.1.1.2)
global_param (1073)	scenario%global_param (scenario_global) (7.9.1.1.228)
ip (1253)	scenario%global_param%ip (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%ip%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%ip%source (string) (7.9.1.1.4)
dip_dt (1253)	scenario%global_param%dip_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%dip_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%dip_dt%source (string) (7.9.1.1.4)
beta_pol (1253)	scenario%global_param%beta_pol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_pol%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_pol%source (string) (7.9.1.1.4)
beta_tor (1253)	scenario%global_param%beta_tor (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_tor%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_tor%source (string) (7.9.1.1.4)
beta_normal (1253)	scenario%global_param%beta_normal (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_normal%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_normal%source (string) (7.9.1.1.4)
li (1253)	scenario%global_param%li (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%li%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%li%source (string) (7.9.1.1.4)
volume (1253)	scenario%global_param%volume (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%volume%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%volume%source (string) (7.9.1.1.4)
area_pol (1253)	scenario%global_param%area_pol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%area_pol%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%area_pol%source (string) (7.9.1.1.4)
area_ext (1253)	scenario%global_param%area_ext (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%area_ext%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%area_ext%source (string) (7.9.1.1.4)
len_sepa (1253)	scenario%global_param%len_sepa (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%len_sepa%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%len_sepa%source (string) (7.9.1.1.4)
beta_pol_th (1253)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_pol_th%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_pol_th%source (string) (7.9.1.1.4)
beta_tor_th (1253)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_tor_th%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_tor_th%source (string) (7.9.1.1.4)
beta_n_th (1253)	scenario%global_param%beta_n_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%beta_n_th%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%beta_n_th%source (string) (7.9.1.1.4)
disruption (1253)	scenario%global_param%disruption (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%disruption%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%disruption%source (string) (7.9.1.1.4)
mode_h (1253)	scenario%global_param%mode_h (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%mode_h%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%mode_h%source (string) (7.9.1.1.4)

s_alpha (1253)	scenario%global_param%s_alpha (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%global_param%s_alpha%value (float) (7.9.1.1.2)
source (1263)	scenario%global_param%s_alpha%source (string) (7.9.1.1.4)
heat_power (1073)	scenario%heat_power (scenario_heat_power) (7.9.1.1.229)
plh (1254)	scenario%heat_power%plh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%plh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%plh%source (string) (7.9.1.1.4)
pohmic (1254)	scenario%heat_power%pohmic (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pohmic%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pohmic%source (string) (7.9.1.1.4)
picrh (1254)	scenario%heat_power%picrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%picrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%picrh%source (string) (7.9.1.1.4)
pecrh (1254)	scenario%heat_power%pecrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pecrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pecrh%source (string) (7.9.1.1.4)
pnbi (1254)	scenario%heat_power%pnbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pnbi%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pnbi%source (string) (7.9.1.1.4)
pnbi_co_cur (1254)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.1.1.4)
pnbi_counter (1254)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pnbi_counter%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pnbi_counter%source (string) (7.9.1.1.4)
plh_th (1254)	scenario%heat_power%plh_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%plh_th%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%plh_th%source (string) (7.9.1.1.4)
picrh_th (1254)	scenario%heat_power%picrh_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%picrh_th%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%picrh_th%source (string) (7.9.1.1.4)
pecrh_th (1254)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pecrh_th%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pecrh_th%source (string) (7.9.1.1.4)
pnbi_th (1254)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pnbi_th%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pnbi_th%source (string) (7.9.1.1.4)
ploss_icrh (1254)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%ploss_icrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%ploss_icrh%source (string) (7.9.1.1.4)
ploss_nbi (1254)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%ploss_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%ploss_nbi%source (string) (7.9.1.1.4)
pbrem (1254)	scenario%heat_power%pbrem (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pbrem%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pbrem%source (string) (7.9.1.1.4)
pcyclo (1254)	scenario%heat_power%pcyclo (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pcyclo%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pcyclo%source (string) (7.9.1.1.4)
prad (1254)	scenario%heat_power%prad (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%prad%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%prad%source (string) (7.9.1.1.4)
pdd_fus (1254)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pdd_fus%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pdd_fus%source (string) (7.9.1.1.4)
pei (1254)	scenario%heat_power%pei (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pei%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pei%source (string) (7.9.1.1.4)
pel_tot (1254)	scenario%heat_power%pel_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pel_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pel_tot%source (string) (7.9.1.1.4)

pel_fus (1254)	scenario%heat_power%pel_fus (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pel_fus%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pel_fus%source (string) (7.9.1.1.4)
pel_icrh (1254)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pel_icrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pel_icrh%source (string) (7.9.1.1.4)
pel_nbi (1254)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pel_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pel_nbi%source (string) (7.9.1.1.4)
pfus_dt (1254)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pfus_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pfus_dt%source (string) (7.9.1.1.4)
ploss_fus (1254)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%ploss_fus%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%ploss_fus%source (string) (7.9.1.1.4)
pfus_nbi (1254)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pfus_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pfus_nbi%source (string) (7.9.1.1.4)
pfus_th (1254)	scenario%heat_power%pfus_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pfus_th%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pfus_th%source (string) (7.9.1.1.4)
padd_tot (1254)	scenario%heat_power%padd_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%padd_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%padd_tot%source (string) (7.9.1.1.4)
pion_tot (1254)	scenario%heat_power%pion_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pion_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pion_tot%source (string) (7.9.1.1.4)
pion_fus (1254)	scenario%heat_power%pion_fus (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pion_fus%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pion_fus%source (string) (7.9.1.1.4)
pion_icrh (1254)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pion_icrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pion_icrh%source (string) (7.9.1.1.4)
pion_nbi (1254)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pion_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pion_nbi%source (string) (7.9.1.1.4)
pioniz (1254)	scenario%heat_power%pioniz (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%pioniz%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%pioniz%source (string) (7.9.1.1.4)
ploss (1254)	scenario%heat_power%ploss (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%ploss%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%ploss%source (string) (7.9.1.1.4)
p_wth (1254)	scenario%heat_power%p_wth (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%p_wth%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%p_wth%source (string) (7.9.1.1.4)
p_w (1254)	scenario%heat_power%p_w (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%p_w%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%p_w%source (string) (7.9.1.1.4)
p_l2h_thr (1254)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%p_l2h_thr%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%p_l2h_thr%source (string) (7.9.1.1.4)
p_l2h_sc (1254)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%p_l2h_sc%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%p_l2h_sc%source (string) (7.9.1.1.4)
p_nbi_icrh (1254)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.1.1.2)
source (1263)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.1.1.4)
itb (1073)	scenario%itb (scenario_itb) (7.9.1.1.231)
q_min (1256)	scenario%itb%q_min (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%q_min%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%q_min%source (string) (7.9.1.1.4)

te_itb (1256)	scenario%itb%te_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%te_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%te_itb%source (string) (7.9.1.1.4)
ti_itb (1256)	scenario%itb%ti_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%ti_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%ti_itb%source (string) (7.9.1.1.4)
ne_itb (1256)	scenario%itb%ne_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%ne_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%ne_itb%source (string) (7.9.1.1.4)
ni_itb (1256)	scenario%itb%ni_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%ni_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%ni_itb%source (string) (7.9.1.1.4)
psi_itb (1256)	scenario%itb%psi_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%psi_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%psi_itb%source (string) (7.9.1.1.4)
phi_itb (1256)	scenario%itb%phi_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%phi_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%phi_itb%source (string) (7.9.1.1.4)
rho_itb (1256)	scenario%itb%rho_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%rho_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%rho_itb%source (string) (7.9.1.1.4)
h_itb (1256)	scenario%itb%h_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%h_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%h_itb%source (string) (7.9.1.1.4)
width_itb (1256)	scenario%itb%width_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%width_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%width_itb%source (string) (7.9.1.1.4)
vtor_itb (1256)	scenario%itb%vtor_itb (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%itb%vtor_itb%value (float) (7.9.1.1.2)
source (1263)	scenario%itb%vtor_itb%source (string) (7.9.1.1.4)
itb_type (1256)	scenario%itb%itb_type (scenario_int) (7.9.1.1.230)
value (1255)	scenario%itb%itb_type%value (integer) (7.9.1.1.3)
source (1255)	scenario%itb%itb_type%source (string) (7.9.1.1.4)
lim_div_wall (1073)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.1.1.232)
te_lim_div (1257)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.1.1.4)
ti_lim_div (1257)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.1.1.4)
ne_lim_div (1257)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.1.1.4)
ni_lim_div (1257)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.1.1.4)
p_peak_div (1257)	scenario%lim_div_wall%p_peak_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%p_peak_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%p_peak_div%source (string) (7.9.1.1.4)
surf_temp (1257)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%surf_temp%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%surf_temp%source (string) (7.9.1.1.4)
p_lim_div (1257)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.1.1.4)
p_rad_div (1257)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.1.1.4)
wall_temp (1257)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%wall_temp%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%wall_temp%source (string) (7.9.1.1.4)

wall_state (1257)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%wall_state%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%wall_state%source (string) (7.9.1.1.4)
detach_state (1257)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%lim_div_wall%detach_state%value (float) (7.9.1.1.2)
source (1263)	scenario%lim_div_wall%detach_state%source (string) (7.9.1.1.4)
pump_flux (1257)	scenario%lim_div_wall%pump_flux (vecflt_type) (7.9.1.1.14)
line_ave (1073)	scenario%line_ave (scenario_line_ave) (7.9.1.1.233)
ne_line (1258)	scenario%line_ave%ne_line (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%line_ave%ne_line%value (float) (7.9.1.1.2)
source (1263)	scenario%line_ave%ne_line%source (string) (7.9.1.1.4)
zeff_line (1258)	scenario%line_ave%zeff_line (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%line_ave%zeff_line%value (float) (7.9.1.1.2)
source (1263)	scenario%line_ave%zeff_line%source (string) (7.9.1.1.4)
ne_zeff_line (1258)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%line_ave%ne_zeff_line%value (float) (7.9.1.1.2)
source (1263)	scenario%line_ave%ne_zeff_line%source (string) (7.9.1.1.4)
dne_line_dt (1258)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%line_ave%dne_line_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%line_ave%dne_line_dt%source (string) (7.9.1.1.4)
neutron (1073)	scenario%neutron (scenario_neutron) (7.9.1.1.234)
ndd_tot (1259)	scenario%neutron%ndd_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndd_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndd_tot%source (string) (7.9.1.1.4)
ndd_th (1259)	scenario%neutron%ndd_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndd_th%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndd_th%source (string) (7.9.1.1.4)
ndd_nbi_th (1259)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndd_nbi_th%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndd_nbi_th%source (string) (7.9.1.1.4)
ndd_nbi_nbi (1259)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.1.1.4)
ndt_tot (1259)	scenario%neutron%ndt_tot (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndt_tot%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndt_tot%source (string) (7.9.1.1.4)
ndt_th (1259)	scenario%neutron%ndt_th (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%neutron%ndt_th%value (float) (7.9.1.1.2)
source (1263)	scenario%neutron%ndt_th%source (string) (7.9.1.1.4)
ninety_five (1073)	scenario%ninety_five (scenario_ninety_five) (7.9.1.1.235)
q_95 (1260)	scenario%ninety_five%q_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%q_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%q_95%source (string) (7.9.1.1.4)
elong_95 (1260)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%elong_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%elong_95%source (string) (7.9.1.1.4)
tria_95 (1260)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%tria_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%tria_95%source (string) (7.9.1.1.4)
tria_up_95 (1260)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%tria_up_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%tria_up_95%source (string) (7.9.1.1.4)
tria_lo_95 (1260)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%tria_lo_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%tria_lo_95%source (string) (7.9.1.1.4)
te_95 (1260)	scenario%ninety_five%te_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%te_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%te_95%source (string) (7.9.1.1.4)
ti_95 (1260)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%ti_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%ti_95%source (string) (7.9.1.1.4)

ne_95 (1260)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%ne_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%ne_95%source (string) (7.9.1.1.4)
ni_95 (1260)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%ni_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%ni_95%source (string) (7.9.1.1.4)
phi_95 (1260)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%phi_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%phi_95%source (string) (7.9.1.1.4)
rho_95 (1260)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%rho_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%rho_95%source (string) (7.9.1.1.4)
vtor_95 (1260)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%ninety_five%vtor_95%value (float) (7.9.1.1.2)
source (1263)	scenario%ninety_five%vtor_95%source (string) (7.9.1.1.4)
pedestal (1073)	scenario%pedestal (scenario_pedestal) (7.9.1.1.236)
te_ped (1261)	scenario%pedestal%te_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%te_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%te_ped%source (string) (7.9.1.1.4)
ti_ped (1261)	scenario%pedestal%ti_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%ti_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%ti_ped%source (string) (7.9.1.1.4)
ne_ped (1261)	scenario%pedestal%ne_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%ne_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%ne_ped%source (string) (7.9.1.1.4)
ni_ped (1261)	scenario%pedestal%ni_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%ni_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%ni_ped%source (string) (7.9.1.1.4)
psi_ped (1261)	scenario%pedestal%psi_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%psi_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%psi_ped%source (string) (7.9.1.1.4)
phi_ped (1261)	scenario%pedestal%phi_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%phi_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%phi_ped%source (string) (7.9.1.1.4)
rho_ped (1261)	scenario%pedestal%rho_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%rho_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%rho_ped%source (string) (7.9.1.1.4)
q_ped (1261)	scenario%pedestal%q_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%q_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%q_ped%source (string) (7.9.1.1.4)
pressure_ped (1261)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%pressure_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%pressure_ped%source (string) (7.9.1.1.4)
vtor_ped (1261)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%pedestal%vtor_ped%value (float) (7.9.1.1.2)
source (1263)	scenario%pedestal%vtor_ped%source (string) (7.9.1.1.4)
references (1073)	scenario%references (scenario_references) (7.9.1.1.239)
plh (1264)	scenario%references%plh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%plh%value (float) (7.9.1.1.2)
source (1263)	scenario%references%plh%source (string) (7.9.1.1.4)
picrh (1264)	scenario%references%picrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%picrh%value (float) (7.9.1.1.2)
source (1263)	scenario%references%picrh%source (string) (7.9.1.1.4)
pecrh (1264)	scenario%references%pecrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%pecrh%value (float) (7.9.1.1.2)
source (1263)	scenario%references%pecrh%source (string) (7.9.1.1.4)
pnbi (1264)	scenario%references%pnbi (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%pnbi%value (float) (7.9.1.1.2)
source (1263)	scenario%references%pnbi%source (string) (7.9.1.1.4)
ip (1264)	scenario%references%ip (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%ip%value (float) (7.9.1.1.2)

source (1263)	scenario%references%ip%source (string) (7.9.1.1.4)
bvac_r (1264)	scenario%references%bvac_r (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%bvac_r%value (float) (7.9.1.1.2)
source (1263)	scenario%references%bvac_r%source (string) (7.9.1.1.4)
zeffl (1264)	scenario%references%zeffl (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%zeffl%value (float) (7.9.1.1.2)
source (1263)	scenario%references%zeffl%source (string) (7.9.1.1.4)
nbar (1264)	scenario%references%nbar (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%nbar%value (float) (7.9.1.1.2)
source (1263)	scenario%references%nbar%source (string) (7.9.1.1.4)
xecrh (1264)	scenario%references%xecrh (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%xecrh%value (float) (7.9.1.1.2)
source (1263)	scenario%references%xecrh%source (string) (7.9.1.1.4)
pol_flux (1264)	scenario%references%pol_flux (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%pol_flux%value (float) (7.9.1.1.2)
source (1263)	scenario%references%pol_flux%source (string) (7.9.1.1.4)
enhancement (1264)	scenario%references%enhancement (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%enhancement%value (float) (7.9.1.1.2)
source (1263)	scenario%references%enhancement%source (string) (7.9.1.1.4)
isotopic (1264)	scenario%references%isotopic (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%isotopic%value (float) (7.9.1.1.2)
source (1263)	scenario%references%isotopic%source (string) (7.9.1.1.4)
nbi_td_ratio (1264)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%references%nbi_td_ratio%value (float) (7.9.1.1.2)
source (1263)	scenario%references%nbi_td_ratio%source (string) (7.9.1.1.4)
reactor (1073)	scenario%reactor (scenario_reactor) (7.9.1.1.237)
pnetwork (1262)	scenario%reactor%pnetwork (float) (7.9.1.1.2)
sol (1073)	scenario%sol (scenario_sol) (7.9.1.1.240)
l_te_sol (1265)	scenario%sol%l_te_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_te_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_te_sol%source (string) (7.9.1.1.4)
l_ti_sol (1265)	scenario%sol%l_ti_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_ti_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_ti_sol%source (string) (7.9.1.1.4)
l_ne_sol (1265)	scenario%sol%l_ne_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_ne_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_ne_sol%source (string) (7.9.1.1.4)
l_ni_sol (1265)	scenario%sol%l_ni_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_ni_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_ni_sol%source (string) (7.9.1.1.4)
l_qe_sol (1265)	scenario%sol%l_qe_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_qe_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_qe_sol%source (string) (7.9.1.1.4)
l_qi_sol (1265)	scenario%sol%l_qi_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%l_qi_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%l_qi_sol%source (string) (7.9.1.1.4)
p_rad_sol (1265)	scenario%sol%p_rad_sol (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%sol%p_rad_sol%value (float) (7.9.1.1.2)
source (1263)	scenario%sol%p_rad_sol%source (string) (7.9.1.1.4)
gaz_puff (1265)	scenario%sol%gaz_puff (vecflt_type) (7.9.1.1.14)
vol_ave (1073)	scenario%vol_ave (scenario_vol_ave) (7.9.1.1.241)
te_ave (1266)	scenario%vol_ave%te_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%te_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%te_ave%source (string) (7.9.1.1.4)
ti_ave (1266)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%ti_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%ti_ave%source (string) (7.9.1.1.4)
ne_ave (1266)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%ne_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%ne_ave%source (string) (7.9.1.1.4)
dne_ave_dt (1266)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.1.1.238)

value (1263)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.1.1.4)
ni_ave (1266)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%ni_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%ni_ave%source (string) (7.9.1.1.4)
zeff_ave (1266)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%zeff_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%zeff_ave%source (string) (7.9.1.1.4)
ti_o_te_ave (1266)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.1.1.4)
meff_ave (1266)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%meff_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%meff_ave%source (string) (7.9.1.1.4)
pellet_flux (1266)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%pellet_flux%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%pellet_flux%source (string) (7.9.1.1.4)
nions_ave (1266)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.1.1.14)
omega_ave (1266)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.1.1.238)
value (1263)	scenario%vol_ave%omega_ave%value (float) (7.9.1.1.2)
source (1263)	scenario%vol_ave%omega_ave%source (string) (7.9.1.1.4)
codeparam (1073)	scenario%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	scenario%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	scenario%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	scenario%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	scenario%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	scenario%codeparam%output_flag (integer) (7.9.1.1.3)
time (1073)	scenario%time (float) (7.9.1.1.2)

7.9.1.2.31 summary

datainfo (1074)	summary%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	summary%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	summary%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	summary%datainfo%source (string) (7.9.1.1.4)
comment (1115)	summary%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	summary%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	summary%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	summary%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	summary%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	summary%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	summary%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	summary%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	summary%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	summary%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	summary%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	summary%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	summary%datainfo%putinfo%rights (string) (7.9.1.1.4)
ip (1074)	summary%ip (reduced) (7.9.1.1.187)
value (1212)	summary%ip%value (float) (7.9.1.1.2)
source (1212)	summary%ip%source (string) (7.9.1.1.4)
time (1212)	summary%ip%time (float) (7.9.1.1.2)
bvac_r (1074)	summary%bvac_r (reduced) (7.9.1.1.187)
value (1212)	summary%bvac_r%value (float) (7.9.1.1.2)
source (1212)	summary%bvac_r%source (string) (7.9.1.1.4)
time (1212)	summary%bvac_r%time (float) (7.9.1.1.2)
geom_axis_r (1074)	summary%geom_axis_r (reduced) (7.9.1.1.187)
value (1212)	summary%geom_axis_r%value (float) (7.9.1.1.2)
source (1212)	summary%geom_axis_r%source (string) (7.9.1.1.4)
time (1212)	summary%geom_axis_r%time (float) (7.9.1.1.2)
a_minor (1074)	summary%a_minor (reduced) (7.9.1.1.187)

value (1212)	summary%a_minor%value (float) (7.9.1.1.2)
source (1212)	summary%a_minor%source (string) (7.9.1.1.4)
time (1212)	summary%a_minor%time (float) (7.9.1.1.2)
elongation (1074)	summary%elongation (reduced) (7.9.1.1.187)
value (1212)	summary%elongation%value (float) (7.9.1.1.2)
source (1212)	summary%elongation%source (string) (7.9.1.1.4)
time (1212)	summary%elongation%time (float) (7.9.1.1.2)
tria_lower (1074)	summary%tria_lower (reduced) (7.9.1.1.187)
value (1212)	summary%tria_lower%value (float) (7.9.1.1.2)
source (1212)	summary%tria_lower%source (string) (7.9.1.1.4)
time (1212)	summary%tria_lower%time (float) (7.9.1.1.2)
tria_upper (1074)	summary%tria_upper (reduced) (7.9.1.1.187)
value (1212)	summary%tria_upper%value (float) (7.9.1.1.2)
source (1212)	summary%tria_upper%source (string) (7.9.1.1.4)
time (1212)	summary%tria_upper%time (float) (7.9.1.1.2)
tev (1074)	summary%tev (reduced) (7.9.1.1.187)
value (1212)	summary%tev%value (float) (7.9.1.1.2)
source (1212)	summary%tev%source (string) (7.9.1.1.4)
time (1212)	summary%tev%time (float) (7.9.1.1.2)
tiv (1074)	summary%tiv (reduced) (7.9.1.1.187)
value (1212)	summary%tiv%value (float) (7.9.1.1.2)
source (1212)	summary%tiv%source (string) (7.9.1.1.4)
time (1212)	summary%tiv%time (float) (7.9.1.1.2)
nev (1074)	summary%nev (reduced) (7.9.1.1.187)
value (1212)	summary%nev%value (float) (7.9.1.1.2)
source (1212)	summary%nev%source (string) (7.9.1.1.4)
time (1212)	summary%nev%time (float) (7.9.1.1.2)
zeffv (1074)	summary%zeffv (reduced) (7.9.1.1.187)
value (1212)	summary%zeffv%value (float) (7.9.1.1.2)
source (1212)	summary%zeffv%source (string) (7.9.1.1.4)
time (1212)	summary%zeffv%time (float) (7.9.1.1.2)
beta_pol (1074)	summary%beta_pol (reduced) (7.9.1.1.187)
value (1212)	summary%beta_pol%value (float) (7.9.1.1.2)
source (1212)	summary%beta_pol%source (string) (7.9.1.1.4)
time (1212)	summary%beta_pol%time (float) (7.9.1.1.2)
beta_tor (1074)	summary%beta_tor (reduced) (7.9.1.1.187)
value (1212)	summary%beta_tor%value (float) (7.9.1.1.2)
source (1212)	summary%beta_tor%source (string) (7.9.1.1.4)
time (1212)	summary%beta_tor%time (float) (7.9.1.1.2)
beta_normal (1074)	summary%beta_normal (reduced) (7.9.1.1.187)
value (1212)	summary%beta_normal%value (float) (7.9.1.1.2)
source (1212)	summary%beta_normal%source (string) (7.9.1.1.4)
time (1212)	summary%beta_normal%time (float) (7.9.1.1.2)
li (1074)	summary%li (reduced) (7.9.1.1.187)
value (1212)	summary%li%value (float) (7.9.1.1.2)
source (1212)	summary%li%source (string) (7.9.1.1.4)
time (1212)	summary%li%time (float) (7.9.1.1.2)
volume (1074)	summary%volume (reduced) (7.9.1.1.187)
value (1212)	summary%volume%value (float) (7.9.1.1.2)
source (1212)	summary%volume%source (string) (7.9.1.1.4)
time (1212)	summary%volume%time (float) (7.9.1.1.2)
area (1074)	summary%area (reduced) (7.9.1.1.187)
value (1212)	summary%area%value (float) (7.9.1.1.2)
source (1212)	summary%area%source (string) (7.9.1.1.4)
time (1212)	summary%area%time (float) (7.9.1.1.2)
main_ion1_z (1074)	summary%main_ion1_z (reduced) (7.9.1.1.187)
value (1212)	summary%main_ion1_z%value (float) (7.9.1.1.2)
source (1212)	summary%main_ion1_z%source (string) (7.9.1.1.4)
time (1212)	summary%main_ion1_z%time (float) (7.9.1.1.2)
main_ion1_a (1074)	summary%main_ion1_a (reduced) (7.9.1.1.187)
value (1212)	summary%main_ion1_a%value (float) (7.9.1.1.2)

source (1212)	summary%main_ion1_a%source (string) (7.9.1.1.4)
time (1212)	summary%main_ion1_a%time (float) (7.9.1.1.2)
main_ion2_z (1074)	summary%main_ion2_z (reduced) (7.9.1.1.187)
value (1212)	summary%main_ion2_z%value (float) (7.9.1.1.2)
source (1212)	summary%main_ion2_z%source (string) (7.9.1.1.4)
time (1212)	summary%main_ion2_z%time (float) (7.9.1.1.2)
main_ion2_a (1074)	summary%main_ion2_a (reduced) (7.9.1.1.187)
value (1212)	summary%main_ion2_a%value (float) (7.9.1.1.2)
source (1212)	summary%main_ion2_a%source (string) (7.9.1.1.4)
time (1212)	summary%main_ion2_a%time (float) (7.9.1.1.2)
impur1_z (1074)	summary%impur1_z (reduced) (7.9.1.1.187)
value (1212)	summary%impur1_z%value (float) (7.9.1.1.2)
source (1212)	summary%impur1_z%source (string) (7.9.1.1.4)
time (1212)	summary%impur1_z%time (float) (7.9.1.1.2)
impur1_a (1074)	summary%impur1_a (reduced) (7.9.1.1.187)
value (1212)	summary%impur1_a%value (float) (7.9.1.1.2)
source (1212)	summary%impur1_a%source (string) (7.9.1.1.4)
time (1212)	summary%impur1_a%time (float) (7.9.1.1.2)
time (1074)	summary%time (float) (7.9.1.1.2)

7.9.1.2.32 topinfo

dataprovider (1075)	topinfo%dataprovider (string) (7.9.1.1.4)
description (1075)	topinfo%description (string) (7.9.1.1.4)
firstputdate (1075)	topinfo%firstputdate (string) (7.9.1.1.4)
lastupdate (1075)	topinfo%lastupdate (string) (7.9.1.1.4)
source (1075)	topinfo%source (string) (7.9.1.1.4)
comment (1075)	topinfo%comment (string) (7.9.1.1.4)
dataversion (1075)	topinfo%dataversion (string) (7.9.1.1.4)
workflow (1075)	topinfo%workflow (string) (7.9.1.1.4)
entry (1075)	topinfo%entry (entry_def) (7.9.1.1.122)
user (1147)	topinfo%entry%user (string) (7.9.1.1.4)
machine (1147)	topinfo%entry%machine (string) (7.9.1.1.4)
shot (1147)	topinfo%entry%shot (integer) (7.9.1.1.3)
run (1147)	topinfo%entry%run (integer) (7.9.1.1.3)
parent_entry (1075)	topinfo%parent_entry (entry_def) (7.9.1.1.122)
user (1147)	topinfo%parent_entry%user (string) (7.9.1.1.4)
machine (1147)	topinfo%parent_entry%machine (string) (7.9.1.1.4)
shot (1147)	topinfo%parent_entry%shot (integer) (7.9.1.1.3)
run (1147)	topinfo%parent_entry%run (integer) (7.9.1.1.3)
mdinfo (1075)	topinfo%mdinfo (mdinfo) (7.9.1.1.152)
shot_min (1177)	topinfo%mdinfo%shot_min (integer) (7.9.1.1.3)
shot_max (1177)	topinfo%mdinfo%shot_max (integer) (7.9.1.1.3)
md_entry (1177)	topinfo%mdinfo%md_entry (entry_def) (7.9.1.1.122)
user (1147)	topinfo%mdinfo%md_entry%user (string) (7.9.1.1.4)
machine (1147)	topinfo%mdinfo%md_entry%machine (string) (7.9.1.1.4)
shot (1147)	topinfo%mdinfo%md_entry%shot (integer) (7.9.1.1.3)
run (1147)	topinfo%mdinfo%md_entry%run (integer) (7.9.1.1.3)

7.9.1.2.33 toroidfield

datainfo (1076)	toroidfield%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	toroidfield%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	toroidfield%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	toroidfield%datainfo%source (string) (7.9.1.1.4)
comment (1115)	toroidfield%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	toroidfield%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	toroidfield%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	toroidfield%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	toroidfield%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	toroidfield%datainfo%whatref%shot (integer) (7.9.1.1.3)

run (1317)	toroidfield%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	toroidfield%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	toroidfield%datainfo%putinfo%rights (string) (7.9.1.1.4)
nturns (1076)	toroidfield%nturns (integer) (7.9.1.1.3)
ncoils (1076)	toroidfield%ncoils (integer) (7.9.1.1.3)
current (1076)	toroidfield%current (exp0D) (7.9.1.1.127)
value (1152)	toroidfield%current%value (float) (7.9.1.1.2)
abserror (1152)	toroidfield%current%abserror (float) (7.9.1.1.2)
relerror (1152)	toroidfield%current%relerror (float) (7.9.1.1.2)
bvac_r (1076)	toroidfield%bvac_r (exp0D) (7.9.1.1.127)
value (1152)	toroidfield%bvac_r%value (float) (7.9.1.1.2)
abserror (1152)	toroidfield%bvac_r%abserror (float) (7.9.1.1.2)
relerror (1152)	toroidfield%bvac_r%relerror (float) (7.9.1.1.2)
r0 (1076)	toroidfield%r0 (float) (7.9.1.1.2)
time (1076)	toroidfield%time (float) (7.9.1.1.2)

7.9.1.2.34 tsdiag

datainfo (1077)	tsdiag%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	tsdiag%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	tsdiag%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	tsdiag%datainfo%source (string) (7.9.1.1.4)
comment (1115)	tsdiag%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	tsdiag%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	tsdiag%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	tsdiag%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	tsdiag%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	tsdiag%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	tsdiag%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	tsdiag%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	tsdiag%datainfo%putinfo%rights (string) (7.9.1.1.4)
setup (1077)	tsdiag%setup (tssetup) (7.9.1.1.282)
position (1307)	tsdiag%setup%position (rz1D) (7.9.1.1.211)
r (1236)	tsdiag%setup%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	tsdiag%setup%position%z (vecflt_type) (7.9.1.1.14)
measure (1077)	tsdiag%measure (tsmeasure) (7.9.1.1.281)
te (1306)	tsdiag%measure%te (exp1D) (7.9.1.1.128)
value (1153)	tsdiag%measure%te%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	tsdiag%measure%te%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	tsdiag%measure%te%relerror (vecflt_type) (7.9.1.1.14)
ne (1306)	tsdiag%measure%ne (exp1D) (7.9.1.1.128)
value (1153)	tsdiag%measure%ne%value (vecflt_type) (7.9.1.1.14)
abserror (1153)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.1.1.14)
relerror (1153)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.1.1.14)
time (1077)	tsdiag%time (float) (7.9.1.1.2)

7.9.1.2.35 vessel

datainfo (1078)	vessel%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	vessel%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	vessel%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	vessel%datainfo%source (string) (7.9.1.1.4)
comment (1115)	vessel%datainfo%comment (string) (7.9.1.1.4)

isref (1115)	vessel%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	vessel%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	vessel%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	vessel%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	vessel%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	vessel%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	vessel%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	vessel%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	vessel%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	vessel%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	vessel%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	vessel%datainfo%putinfo%rights (string) (7.9.1.1.4)
position (1078)	vessel%position (rz1D) (7.9.1.1.211)
r (1236)	vessel%position%r (vecflt_type) (7.9.1.1.14)
z (1236)	vessel%position%z (vecflt_type) (7.9.1.1.14)

7.9.1.2.36 waves

datainfo (1079)	waves%datainfo (datainfo) (7.9.1.1.90)
dataprovider (1115)	waves%datainfo%dataprovider (string) (7.9.1.1.4)
putdate (1115)	waves%datainfo%putdate (string) (7.9.1.1.4)
source (1115)	waves%datainfo%source (string) (7.9.1.1.4)
comment (1115)	waves%datainfo%comment (string) (7.9.1.1.4)
isref (1115)	waves%datainfo%isref (integer) (7.9.1.1.3)
whatref (1115)	waves%datainfo%whatref (whatref) (7.9.1.1.292)
user (1317)	waves%datainfo%whatref%user (string) (7.9.1.1.4)
machine (1317)	waves%datainfo%whatref%machine (string) (7.9.1.1.4)
shot (1317)	waves%datainfo%whatref%shot (integer) (7.9.1.1.3)
run (1317)	waves%datainfo%whatref%run (integer) (7.9.1.1.3)
occurrence (1317)	waves%datainfo%whatref%occurrence (integer) (7.9.1.1.3)
putinfo (1115)	waves%datainfo%putinfo (putinfo) (7.9.1.1.184)
putmethod (1209)	waves%datainfo%putinfo%putmethod (string) (7.9.1.1.4)
putaccess (1209)	waves%datainfo%putinfo%putaccess (string) (7.9.1.1.4)
putlocation (1209)	waves%datainfo%putinfo%putlocation (string) (7.9.1.1.4)
rights (1209)	waves%datainfo%putinfo%rights (string) (7.9.1.1.4)
composition (1079)	waves%composition (composition) (7.9.1.1.74)
amn (1099)	waves%composition%amn (vecflt_type) (7.9.1.1.14)
zn (1099)	waves%composition%zn (vecflt_type) (7.9.1.1.14)
zion (1099)	waves%composition%zion (vecflt_type) (7.9.1.1.14)
imp_flag (1099)	waves%composition%imp_flag (vecint_type) (7.9.1.1.15)
global_param (1079)	waves%global_param (waves_global_param) (7.9.1.1.286)
frequency (1311)	waves%global_param%frequency (vecflt_type) (7.9.1.1.14)
name (1311)	waves%global_param%name (vecstring_type) (7.9.1.1.16)
type (1311)	waves%global_param%type (vecstring_type) (7.9.1.1.16)
nntor (1311)	waves%global_param%nntor (vecint_type) (7.9.1.1.15)
ntor (1311)	waves%global_param%ntor (matint_type) (7.9.1.1.13)
f_assumption (1311)	waves%global_param%f_assumption (matint_type) (7.9.1.1.13)
power_tot (1311)	waves%global_param%power_tot (vecflt_type) (7.9.1.1.14)
p_frac_ntor (1311)	waves%global_param%p_frac_ntor (matflt_type) (7.9.1.1.12)
pow_i (1311)	waves%global_param%pow_i (matflt_type) (7.9.1.1.12)
pow_e (1311)	waves%global_param%pow_e (vecflt_type) (7.9.1.1.14)
pow_ntor_i (1311)	waves%global_param%pow_ntor_i (array3dflt_type) (7.9.1.1.6)
pow_ntor_e (1311)	waves%global_param%pow_ntor_e (matflt_type) (7.9.1.1.12)
cur_tor (1311)	waves%global_param%cur_tor (vecflt_type) (7.9.1.1.14)
cur_tor_ntor (1311)	waves%global_param%cur_tor_ntor (matflt_type) (7.9.1.1.12)
code_type (1311)	waves%global_param%code_type (vecint_type) (7.9.1.1.15)
freq_point (1311)	waves%global_param%freq_point (vecint_type) (7.9.1.1.15)
toroid_field (1311)	waves%global_param%toroid_field (b0r0) (7.9.1.1.62)
r0 (1087)	waves%global_param%toroid_field%r0 (float) (7.9.1.1.2)
b0 (1087)	waves%global_param%toroid_field%b0 (float) (7.9.1.1.2)
grid (1079)	waves%grid (waves_grid) (7.9.1.1.287)

rho_tor_norm (1312)	waves%grid%rho_tor_norm (matflt_type) (7.9.1.1.12)
rho_tor (1312)	waves%grid%rho_tor (matflt_type) (7.9.1.1.12)
psi (1312)	waves%grid%psi (matflt_type) (7.9.1.1.12)
theta (1312)	waves%grid%theta (matflt_type) (7.9.1.1.12)
npsi (1312)	waves%grid%npsi (vecint_type) (7.9.1.1.15)
ntheta (1312)	waves%grid%ntheta (vecint_type) (7.9.1.1.15)
rz_position (1312)	waves%grid%rz_position (rz3D) (7.9.1.1.214)
r (1239)	waves%grid%rz_position%r (array3dflt_type) (7.9.1.1.6)
z (1239)	waves%grid%rz_position%z (array3dflt_type) (7.9.1.1.6)
theta_info (1312)	waves%grid%theta_info (theta_info) (7.9.1.1.275)
angl_type (1300)	waves%grid%theta_info%angl_type (vecint_type) (7.9.1.1.15)
th2th_pol (1300)	waves%grid%theta_info%th2th_pol (matflt_type) (7.9.1.1.12)
profiles_1d (1079)	waves%profiles_1d (waves_profiles_1d) (7.9.1.1.288)
powd_tot (1313)	waves%profiles_1d%powd_tot (matflt_type) (7.9.1.1.12)
powd_e (1313)	waves%profiles_1d%powd_e (matflt_type) (7.9.1.1.12)
powd_i (1313)	waves%profiles_1d%powd_i (array3dflt_type) (7.9.1.1.6)
powd_ntor (1313)	waves%profiles_1d%powd_ntor (array3dflt_type) (7.9.1.1.6)
powd_ntor_e (1313)	waves%profiles_1d%powd_ntor_e (array3dflt_type) (7.9.1.1.6)
powd_ntor_i (1313)	waves%profiles_1d%powd_ntor_i (array4dflt_type) (7.9.1.1.8)
curd_tor (1313)	waves%profiles_1d%curd_tor (matflt_type) (7.9.1.1.12)
curd_torntor (1313)	waves%profiles_1d%curd_torntor (array3dflt_type) (7.9.1.1.6)
pow_tot (1313)	waves%profiles_1d%pow_tot (matflt_type) (7.9.1.1.12)
pow_e (1313)	waves%profiles_1d%pow_e (matflt_type) (7.9.1.1.12)
pow_i (1313)	waves%profiles_1d%pow_i (array3dflt_type) (7.9.1.1.6)
pow_ntor (1313)	waves%profiles_1d%pow_ntor (array3dflt_type) (7.9.1.1.6)
pow_ntor_e (1313)	waves%profiles_1d%pow_ntor_e (array3dflt_type) (7.9.1.1.6)
pow_ntor_i (1313)	waves%profiles_1d%pow_ntor_i (array4dflt_type) (7.9.1.1.8)
curd_par (1313)	waves%profiles_1d%curd_par (matflt_type) (7.9.1.1.12)
curd_parntor (1313)	waves%profiles_1d%curd_parntor (array3dflt_type) (7.9.1.1.6)
cur_tor (1313)	waves%profiles_1d%cur_tor (matflt_type) (7.9.1.1.12)
cur_tor_ntor (1313)	waves%profiles_1d%cur_tor_ntor (array3dflt_type) (7.9.1.1.6)
profiles_2d (1079)	waves%profiles_2d (waves_profiles_2d) (7.9.1.1.289)
powd_tot (1314)	waves%profiles_2d%powd_tot (array3dflt_type) (7.9.1.1.6)
powd_e (1314)	waves%profiles_2d%powd_e (array3dflt_type) (7.9.1.1.6)
powd_i (1314)	waves%profiles_2d%powd_i (array4dflt_type) (7.9.1.1.8)
powd_ntor (1314)	waves%profiles_2d%powd_ntor (array4dflt_type) (7.9.1.1.8)
powd_ntor_e (1314)	waves%profiles_2d%powd_ntor_e (array4dflt_type) (7.9.1.1.8)
powd_ntor_i (1314)	waves%profiles_2d%powd_ntor_i (array5dflt_type) (7.9.1.1.9)
powd_iharm (1314)	waves%profiles_2d%powd_iharm (array5dflt_type) (7.9.1.1.9)
beamtracing (1079)	waves%beamtracing (beamtracing) (7.9.1.1.64)
nbeams (1089)	waves%beamtracing%nbeams (vecint_type) (7.9.1.1.15)
npoints (1089)	waves%beamtracing%npoints (matint_type) (7.9.1.1.13)
power (1089)	waves%beamtracing%power (matflt_type) (7.9.1.1.12)
dnpar (1089)	waves%beamtracing%dnpar (array3dflt_type) (7.9.1.1.6)
length (1089)	waves%beamtracing%length (array3dflt_type) (7.9.1.1.6)
position (1089)	waves%beamtracing%position (waves_rtposition) (7.9.1.1.290)
r (1315)	waves%beamtracing%position%r (array3dflt_type) (7.9.1.1.6)
z (1315)	waves%beamtracing%position%z (array3dflt_type) (7.9.1.1.6)
psi (1315)	waves%beamtracing%position%psi (array3dflt_type) (7.9.1.1.6)
theta (1315)	waves%beamtracing%position%theta (array3dflt_type) (7.9.1.1.6)
phi (1315)	waves%beamtracing%position%phi (array3dflt_type) (7.9.1.1.6)
wavevector (1089)	waves%beamtracing%wavevector (waves_rtwavevector) (7.9.1.1.291)
kr (1316)	waves%beamtracing%wavevector%kr (array3dflt_type) (7.9.1.1.6)
kz (1316)	waves%beamtracing%wavevector%kz (array3dflt_type) (7.9.1.1.6)
npar (1316)	waves%beamtracing%wavevector%npar (array3dflt_type) (7.9.1.1.6)
nperp (1316)	waves%beamtracing%wavevector%nperp (array3dflt_type) (7.9.1.1.6)
ntor (1316)	waves%beamtracing%wavevector%ntor (array3dflt_type) (7.9.1.1.6)
var_ntor (1316)	waves%beamtracing%wavevector%var_ntor (vecint_type) (7.9.1.1.15)
polarization (1089)	waves%beamtracing%polarization (polarization) (7.9.1.1.176)
epol_p (1201)	waves%beamtracing%polarization%epol_p (array3dflt_type) (7.9.1.1.6)
epol_m (1201)	waves%beamtracing%polarization%epol_m (array3dflt_type) (7.9.1.1.6)

epol_par (1201)	waves%beamtracing%polarization%epol_par (array3dflt_type) (7.9.1.1.6)
powerflow (1089)	waves%beamtracing%powerflow (powerflow) (7.9.1.1.177)
phi_perp (1202)	waves%beamtracing%powerflow%phi_perp (array3dflt_type) (7.9.1.1.6)
phi_par (1202)	waves%beamtracing%powerflow%phi_par (array3dflt_type) (7.9.1.1.6)
power_e (1202)	waves%beamtracing%powerflow%power_e (array3dflt_type) (7.9.1.1.6)
power_i (1202)	waves%beamtracing%powerflow%power_i (array4dflt_type) (7.9.1.1.8)
fullwave (1079)	waves%fullwave (fullwave) (7.9.1.1.136)
pol_decomp (1161)	waves%fullwave%pol_decomp (pol_decomp) (7.9.1.1.175)
nmpol (1200)	waves%fullwave%pol_decomp%nmpol (vecint_type) (7.9.1.1.15)
mpol (1200)	waves%fullwave%pol_decomp%mpol (matint_type) (7.9.1.1.13)
e_plus (1200)	waves%fullwave%pol_decomp%e_plus (array4dflt_type) (7.9.1.1.8)
e_plus_ph (1200)	waves%fullwave%pol_decomp%e_plus_ph (array4dflt_type) (7.9.1.1.8)
e_minus (1200)	waves%fullwave%pol_decomp%e_minus (array4dflt_type) (7.9.1.1.8)
e_minus_ph (1200)	waves%fullwave%pol_decomp%e_minus_ph (array4dflt_type) (7.9.1.1.8)
e_norm (1200)	waves%fullwave%pol_decomp%e_norm (array4dflt_type) (7.9.1.1.8)
e_norm_ph (1200)	waves%fullwave%pol_decomp%e_norm_ph (array4dflt_type) (7.9.1.1.8)
e_binorm (1200)	waves%fullwave%pol_decomp%e_binorm (array4dflt_type) (7.9.1.1.8)
e_binorm_ph (1200)	waves%fullwave%pol_decomp%e_binorm_ph (array4dflt_type) (7.9.1.1.8)
e_para (1200)	waves%fullwave%pol_decomp%e_para (array4dflt_type) (7.9.1.1.8)
e_para_ph (1200)	waves%fullwave%pol_decomp%e_para_ph (array4dflt_type) (7.9.1.1.8)
b_norm (1200)	waves%fullwave%pol_decomp%b_norm (array4dflt_type) (7.9.1.1.8)
b_norm_ph (1200)	waves%fullwave%pol_decomp%b_norm_ph (array4dflt_type) (7.9.1.1.8)
b_binorm (1200)	waves%fullwave%pol_decomp%b_binorm (array4dflt_type) (7.9.1.1.8)
b_binorm_ph (1200)	waves%fullwave%pol_decomp%b_binorm_ph (array4dflt_type) (7.9.1.1.8)
b_para (1200)	waves%fullwave%pol_decomp%b_para (array4dflt_type) (7.9.1.1.8)
b_para_ph (1200)	waves%fullwave%pol_decomp%b_para_ph (array4dflt_type) (7.9.1.1.8)
local (1161)	waves%fullwave%local (local) (7.9.1.1.148)
e_plus (1173)	waves%fullwave%local%e_plus (array4dflt_type) (7.9.1.1.8)
e_plus_ph (1173)	waves%fullwave%local%e_plus_ph (array4dflt_type) (7.9.1.1.8)
e_minus (1173)	waves%fullwave%local%e_minus (array4dflt_type) (7.9.1.1.8)
e_minus_ph (1173)	waves%fullwave%local%e_minus_ph (array4dflt_type) (7.9.1.1.8)
e_norm (1173)	waves%fullwave%local%e_norm (array4dflt_type) (7.9.1.1.8)
enorm_ph (1173)	waves%fullwave%local%enorm_ph (array4dflt_type) (7.9.1.1.8)
e_binorm (1173)	waves%fullwave%local%e_binorm (array4dflt_type) (7.9.1.1.8)
e_binorm_ph (1173)	waves%fullwave%local%e_binorm_ph (array4dflt_type) (7.9.1.1.8)
e_para (1173)	waves%fullwave%local%e_para (array4dflt_type) (7.9.1.1.8)
e_para_ph (1173)	waves%fullwave%local%e_para_ph (array4dflt_type) (7.9.1.1.8)
b_norm (1173)	waves%fullwave%local%b_norm (array4dflt_type) (7.9.1.1.8)
b_norm_ph (1173)	waves%fullwave%local%b_norm_ph (array4dflt_type) (7.9.1.1.8)
b_binorm (1173)	waves%fullwave%local%b_binorm (array4dflt_type) (7.9.1.1.8)
b_binorm_ph (1173)	waves%fullwave%local%b_binorm_ph (array4dflt_type) (7.9.1.1.8)
b_para (1173)	waves%fullwave%local%b_para (array4dflt_type) (7.9.1.1.8)
b_para_ph (1173)	waves%fullwave%local%b_para_ph (array4dflt_type) (7.9.1.1.8)
codeparam (1079)	waves%codeparam (codeparam) (7.9.1.1.72)
codename (1097)	waves%codeparam%codename (string) (7.9.1.1.4)
codeversion (1097)	waves%codeparam%codeversion (string) (7.9.1.1.4)
parameters (1097)	waves%codeparam%parameters (string) (7.9.1.1.4)
output_diag (1097)	waves%codeparam%output_diag (string) (7.9.1.1.4)
output_flag (1097)	waves%codeparam%output_flag (integer) (7.9.1.1.3)
time (1079)	waves%time (float) (7.9.1.1.2)

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7.9.2 4.08b

7.9.2.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

[556] https://www.efda-itm.eu/ITM/html/cpoinstances__4.08a.html

7.9.2.1.1 Primitive Types

Clear definitions required.

7.9.2.1.2 float

7.9.2.1.3 integer

7.9.2.1.4 string

7.9.2.1.5 Array Types

Clear definitions required.

7.9.2.1.6 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.2.1.7 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.2.1.8 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.2.1.9 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2.

7.9.2.1.10 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.2.1.11 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.2.1.12 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.2.1.13 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.2.1.14 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.2.1.15 vecint_type

Example: [1,2,3]

7.9.2.1.16 vecstring_type

Example: [”aaa”,”bb”,”cccc”]

7.9.2.1.17 Structure Types

7.9.2.1.18 CPO Structures

7.9.2.1.19 amns

Atomic physics data CPO. Each occurrence contains the atomic data for a given element (nuclear charge)

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
version	string (7.9.2.1.4)	Version of the data.
source	string (7.9.2.1.4)	Source of the data.
zn	integer (7.9.2.1.3)	Nuclear charge [units of elementary charge];
zion	vecint_type (7.9.2.1.15)	Ion charge [units of elementary charge]. If negative value, means it is a bundle of charge state which cannot be described as single value. Vector of integers (nz)
amn	float (7.9.2.1.2)	Mass of atom [amu]
state_label	vecstring_type (7.9.2.1.16)	label for charge state (e.g. D0, D1+, ...); Vector(nz)
result_label	vecstring_type (7.9.2.1.16)	description of each result; Vector(nprocs)
result_unit	vecstring_type (7.9.2.1.16)	units of result; Vector(nprocs)
result_trans	vecint_type (7.9.2.1.15)	0 : none; 1 : 10**; 2 : exp; Vector(nprocs)
bundled	integer (7.9.2.1.3)	0 : none.
proc_label	vecstring_type (7.9.2.1.16)	Label for process (e.g. EI, RC; could also include error estimates); Vector(nprocs)
tables	tables (7.9.2.1.295)	NO DOCS

7.9.2.1.20 antennas

RF antenna list. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
antenna_ec	antenna_ec (7.9.2.1.57)	Electron Cyclotron antennas
antenna_ic	antenna_ic (7.9.2.1.58)	Ion Cyclotron antennas
antenna_lh	antenna_lh (7.9.2.1.59)	Lower Hybrid antennas
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.21 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
delta_psi	vecflt_type (7.9.2.1.14)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.2.1.14)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.2.1.12)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.2.1.6)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.2.1.14)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.2.1.12)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.2.1.6)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.2.1.12)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.22 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into "bundles". Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.2.1.15)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.2.1.93)	Description of the impurities (list of ion species and possibly different charge states)
z	array3dflt_type (7.9.2.1.6)	Impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
zsq	array3dflt_type (7.9.2.1.6)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
nz	array3dflt_type (7.9.2.1.6)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source_term	sourceimp (7.9.2.1.274)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.2.1.70)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.2.1.88)	Transport coefficients for each charge state
flux	fluximp (7.9.2.1.136)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	array3dflt_type (7.9.2.1.6)	Integral of the time derivative term of the transport equation. Time-dependent. Array3D (nrho,nimp,max_nzimp)
atomic_data	vecstring_type (7.9.2.1.16)	Reference for the atomic data used for each impurity. Array of strings (nimp)
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.2.1.73)	Code parameters

7.9.2.1.23 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition_neutrals (7.9.2.1.77)	Description of neutrals species
profiles	profiles_neutrals (7.9.2.1.201)	Profiles derived from the fields solved in the transport equations, or from experiment.
coefficients	coefficients_neutrals (7.9.2.1.74)	Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.24 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.2.1.14)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.2.1.297)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
psi	psi (7.9.2.1.203)	Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
te	corefield (7.9.2.1.79)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.2.1.80)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.2.1.79)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.2.1.80)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.2.1.80)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.2.1.198)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.2.1.141)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.25 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
toroid_field	b0r0 (7.9.2.1.63)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of j in this CPO.
j	vecflt_type (7.9.2.1.14)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.2.1.14)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.2.1.271)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_el (7.9.2.1.269)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz	source_imp (7.9.2.1.270)	Particle source for impurity density transport equation [m^-3.s^-1]. Time-dependent.
qi	source_ion (7.9.2.1.271)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_el (7.9.2.1.269)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz	source_imp (7.9.2.1.270)	Heat source for impurity heat transport equations [W.m^-3]. Time-dependent.
ui	source_ion (7.9.2.1.271)	Velocity source for toroidal velocity transport equation [kg.m^-1.s^-2]. Vector(nrho). Time-dependent.
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.26 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
sigma	vecflt_type (7.9.2.1.14)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.2.1.177)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.2.1.175)	Transport coefficients for electron density equation. Time-dependent.
nz_transp	transcoefimp (7.9.2.1.299)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.2.1.300)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.2.1.298)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp	transcoefimp (7.9.2.1.299)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.2.1.301)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.27 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
setup	cxsetup (7.9.2.1.91)	diagnostic setup information
measure	cxmeasure (7.9.2.1.90)	Measured values
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.28 distribution

Distribution function for electron and ion species. Normally output from a Fokker-Planck calculation; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
calc_spec	vecint_type (7.9.2.1.15)	Pointer to the species for which the distribution function(s) is/are calculated and whose characteristics are given in composition (for ions). Value 0 means electrons. Vector of integers (ndist_spec)
nucl_reac	dist_nucl_reac (7.9.2.1.103)	Information on nuclear reactions involving the calculated species.
global_param	dist_glob (7.9.2.1.99)	Global parameters (in most cases volume integrated and surface averaged quanatities).
profiles_1d	dist_profiles (7.9.2.1.113)	Profiles (volume integrated and flux surface averaged)
dist_func	dist_func (7.9.2.1.98)	Distribution functions
input_src	dist_input_src (7.9.2.1.102)	Input sources of particles and power for the distribution species (to aid diagnosing the code output).
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.29 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
src_spec	vecint_type (7.9.2.1.15)	Pointer to the source species whose characteristics are given in composition. Vector(nsrc_spec)
global_param	distsource_global_param (7.9.2.1.119)	Global parameters (volume integrated).
profiles_1d	distsource_profiles_1d (7.9.2.1.120)	1D radial profiles
source_4d	source_4d (7.9.2.1.268)	Source of particles in phase space.
source_tp	source_tp (7.9.2.1.272)	Source given as a set of test particles. Note that the test particles are given at the source location and not at the gyrocentre. Note that max_n_particles should be the maximum both over species and time (since the number of test particles can change with time)
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; scalar

7.9.2.1.30 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
setup	ecesetup (7.9.2.1.123)	diagnostic setup information
measure	ecemeasure (7.9.2.1.122)	Measured values
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.31 edge

An example of CPO that uses a GRID complex element. For testing purposes only for the moment. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
grid	grid_full (7.9.2.1.150)	Grid definition
desc_impur	desc_impur (7.9.2.1.93)	Description of the impurities (list of ion species and possibly different charge states)
fluid	grid_fluid (7.9.2.1.145)	Fluid quantities
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.2.1.73)	Code parameters

7.9.2.1.32 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
eqconstraint	eqconstraint (7.9.2.1.125)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.2.1.126)	Geometry of the plasma boundary
flush	flush (7.9.2.1.133)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.2.1.140)	0d output parameters
profiles_1d	profiles_1d (7.9.2.1.199)	output profiles as a function of the poloidal flux
profiles_2d	profiles_2d (7.9.2.1.200)	output profiles in the poloidal plane
coord_sys	coord_sys (7.9.2.1.78)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.2.1.73)	Code parameters

7.9.2.1.33 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
expression	string (7.9.2.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.2.1.266)	Geometric description of the lines of sight
measure	exp1D (7.9.2.1.130)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.34 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
desc_iron	desc_iron (7.9.2.1.94)	Description of the iron segments
magnetise	magnetise (7.9.2.1.168)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.35 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
name	vecstring_type (7.9.2.1.16)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.2.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.2.1.14)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.2.1.15)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.2.1.235)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.2.1.277)	Spectral properties of the wave.
beam	rf_beam (7.9.2.1.229)	Beam characteristics
codeparam	codeparam (7.9.2.1.73)	Code parameters

member	type	description
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.36 limiter

Description of the immobile limiting surface for defining the Last Closed Flux Surface. CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
position	rz1D (7.9.2.1.231)	Position (R,Z coordinates) of the limiter [m]; Vector(npoints)

7.9.2.1.37 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
ip	exp0D (7.9.2.1.129)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.2.1.129)	Diamagnetic flux [Wb]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.2.1.134)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.2.1.72)	Poloidal field probes
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.38 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
n	vecint_type (7.9.2.1.15)	Toroidal mode number; Time-dependent; Vector (nn)
frequency	vecflt_type (7.9.2.1.14)	Frequency of the mode [Hz]; Time-dependent; Vector (nn)
growthrate	vecflt_type (7.9.2.1.14)	Linear growthrate of the mode [Hz]; Time-dependent; Vector (nn)
plasma	mhd_plasma (7.9.2.1.170)	MHD modes in the confined plasma
vaccum	mhd_vaccum (7.9.2.1.171)	External modes
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.2.1.73)	Code parameters

7.9.2.1.39 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
setup_mse	setup_mse (7.9.2.1.267)	diagnostic setup information
measure	exp1D (7.9.2.1.130)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.40 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
inj_spec	inj_spec (7.9.2.1.158)	Injected species
pow_unit	exp1D (7.9.2.1.130)	Power delivered by an NBI unit [W]; Time-dependent; Vector(nunits)
inj_eng_unit	exp1D (7.9.2.1.130)	Full injection energy of a unit [ev]; Time-dependent; Vector(nunits)
halfe_cfr	exp1D (7.9.2.1.130)	Beam current fraction (of total) for half energy component; Time-dependent; Vector(nunits)
thirde_cfr	exp1D (7.9.2.1.130)	Beam current fraction (of total) for the one third energy component. Time-dependent; Vector(nunits)

member	type	description
setup_inject	setup_inject (7.9.2.1.265)	Detailed information on an injection unit.
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.41 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
ni_neo	transcoefion (7.9.2.1.300)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.2.1.298)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo	transcoefimp (7.9.2.1.299)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.2.1.300)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.2.1.298)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo	transcoefimp (7.9.2.1.299)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.2.1.298)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.2.1.14)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.2.1.14)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.2.1.14)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.2.1.12)	Neoclassical poloidal rotation of for each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.2.1.6)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.2.1.14)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.2.1.73)	Code parameters

7.9.2.1.42 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
orbitt_id	orbitt_id (7.9.2.1.183)	Parameters identifying an orbit
orb_trace	orb_trace (7.9.2.1.181)	Position of particle in 5D space (3D in real and 2D in velocity).
orb_glob_dat	orb_glob_dat (7.9.2.1.180)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.43 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
pfcoils	pfcoils (7.9.2.1.187)	Active poloidal field coils
pfpassive	pfpassive (7.9.2.1.191)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.2.1.186)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.2.1.192)	PF power supplies
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.44 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
expression	string (7.9.2.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.2.1.266)	Geometric description of the lines of sight
measure	exp1D (7.9.2.1.130)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.45 reference

Set of generic reference signals (for input e.g. to a controller); Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
non_timed	ref_nt (7.9.2.1.208)	Time-independent references (parameters)
timed	ref_t (7.9.2.1.219)	Time-dependent references
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.46 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
crash_trig	integer (7.9.2.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.2.1.241)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.2.1.240)	NO DOCS
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.47 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
centre	scenario_centre (7.9.2.1.242)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.2.1.243)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.2.1.244)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.2.1.245)	characteristic confinement times
currents	scenario_currents (7.9.2.1.246)	data related to current sources and current diffusion
edge	scenario_edge (7.9.2.1.247)	edge value (@ LCMS)
energy	scenario_energy (7.9.2.1.248)	plasma energy content
eqgeometry	eqgeometry (7.9.2.1.126)	Geometry of the plasma boundary
global_param	scenario_global (7.9.2.1.249)	Global scalar values
heat_power	scenario_heat_power (7.9.2.1.250)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.2.1.252)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.2.1.253)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.2.1.254)	line averaged value

member	type	description
neutron	scenario_neutron (7.9.2.1.255)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.2.1.256)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.2.1.257)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.2.1.260)	References
reactor	scenario_reactor (7.9.2.1.258)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.2.1.261)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.2.1.262)	volume averaged value
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.48 summary

Set of reduced data summarising the main simulation parameters for the data base catalogue. CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
ip	reduced (7.9.2.1.207)	Plasma current [A]
bvac_r	reduced (7.9.2.1.207)	Vacuum field times radius in the toroidal field magnet [T.m];
geom_axis_r	reduced (7.9.2.1.207)	Major radius of the geometric axis [m]
a_minor	reduced (7.9.2.1.207)	Minor radius of the plasma boundary [m]
elongation	reduced (7.9.2.1.207)	Elongation of the plasma boundary [m]
tria_lower	reduced (7.9.2.1.207)	Lower triangularity of the plasma boundary [m]
tria_upper	reduced (7.9.2.1.207)	Upper triangularity of the plasma boundary [m]
tev	reduced (7.9.2.1.207)	volume averaged electron temperature [eV]
tiv	reduced (7.9.2.1.207)	volume averaged ion temperature [eV]
nev	reduced (7.9.2.1.207)	volume averaged electron density [m^-3]
zeffv	reduced (7.9.2.1.207)	volume averaged effective charge
beta_pol	reduced (7.9.2.1.207)	poloidal beta
beta_tor	reduced (7.9.2.1.207)	toroidal beta
beta_normal	reduced (7.9.2.1.207)	normalised beta
li	reduced (7.9.2.1.207)	internal inductance
volume	reduced (7.9.2.1.207)	total plasma volume [m^3]
area	reduced (7.9.2.1.207)	area poloidal cross section [m^2]
main_ion1_z	reduced (7.9.2.1.207)	Atomic number of the main ion #1 [a.m.u.]
main_ion1_a	reduced (7.9.2.1.207)	Atomic mass of the main ion #1 [a.m.u.]
main_ion2_z	reduced (7.9.2.1.207)	Atomic number of the main ion #2 [a.m.u.]
main_ion2_a	reduced (7.9.2.1.207)	Atomic mass of the main ion #2 [a.m.u.]
impur1_z	reduced (7.9.2.1.207)	Atomic number of the impurity #1 [a.m.u.]
impur1_a	reduced (7.9.2.1.207)	Atomic mass of the impurity #1 [a.m.u.]
time	float (7.9.2.1.2)	Time at which the 0D variables of the summary are taken [s]. Scalar

7.9.2.1.49 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.2.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.2.1.4)	Pulse/Entry description
firstputdate	string (7.9.2.1.4)	Date of the original data submission
lastupdate	string (7.9.2.1.4)	Date of the last data addition in the tree
source	string (7.9.2.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.2.1.4)	Any additional comment
dataversion	string (7.9.2.1.4)	Version of the data structure
workflow	string (7.9.2.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.2.1.124)	Definition of this database entry

member	type	description
parent_entry	entry_def (7.9.2.1.124)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.2.1.169)	Information related to machine description for this entry

7.9.2.1.50 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
nturns	integer (7.9.2.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.2.1.3)	Number of packets of coils
current	exp0D (7.9.2.1.129)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.2.1.129)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.2.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.2.1.2)	Time [s]; Time-dependent. Scalar.

7.9.2.1.51 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
setup	tssetup (7.9.2.1.303)	diagnostic setup information
measure	tsmeasure (7.9.2.1.302)	Measured values
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.52 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.2.1.304)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.2.1.308)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.2.1.309)	Dependent variable radial profile.
var2d	turbvar2d (7.9.2.1.310)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.2.1.311)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.2.1.307)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.2.1.305)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.2.1.73)	Code parameters
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar.

7.9.2.1.53 vessel

Mechanical structure of the vacuum vessel. CPO.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
position	rz1D (7.9.2.1.231)	Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints)

7.9.2.1.54 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.2.1.75)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.2.1.73)	Code parameters

member	type	description
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.55 Utility Structures

7.9.2.1.56 alter_coord

Alternative coordinate system possibly used to describe the space (e.g. rho_tor versus rho_tor_norm). NB : when specifying straight lines to build cells, these are intended to refer to the primary (main) system and may not be straight on the alternative system.

member	type	description
type_coord	vecint_type (7.9.2.1.15)	Type of coordinates describing the space. Vector of integers (ncoord)
node_value	matflt_type (7.9.2.1.12)	Numerical value of the node coordinates. Matrix (nnode,ncoord)

Type of: grid_space:alter_coord (1487)

7.9.2.1.57 antenna_ec

Electron Cyclotron antennas

member	type	description
name	vecstring_type (7.9.2.1.16)	Antenna name, Vector of strings (nantenna_ec)
frequency	vecflt_type (7.9.2.1.14)	Frequency [Hz], Vector (nantenna_ec)
power	exp1D (7.9.2.1.130)	Power [W], Vector (nantenna_ec). Time-dependent
mode	vecint_type (7.9.2.1.15)	Incoming wave mode (+ or -1 for O/X mode), Vector of integers (nantenna_ec). Time-dependent
position	rzphi1D (7.9.2.1.235)	Reference global position of the last mirror. Vectors (nantenna_ec). Time-dependent
launchangles	launchangles (7.9.2.1.161)	Launching angles of the beam
beam	rf_beam (7.9.2.1.229)	Beam characteristics

Type of: antennas:antenna_ec (1355)

7.9.2.1.58 antenna_ic

Ion Cyclotron antennas

member	type	description
name	vecstring_type (7.9.2.1.16)	Antenna name; Vector of strings (nantenna_ic)
frequency	exp1D (7.9.2.1.130)	Frequency [Hz]; Time-dependent; Vector (nantenna_ic)
power	exp1D (7.9.2.1.130)	Power [W]; Time-dependent; Vector (nantenna_ic)
setup	antennaic_setup (7.9.2.1.60)	Detailed description of IC antennas

Type of: antennas:antenna_ic (1355)

7.9.2.1.59 antenna_lh

Lower Hybrid antennas

member	type	description
name	vecstring_type (7.9.2.1.16)	Antenna name, Vector of strings (nantenna_lh)
frequency	vecflt_type (7.9.2.1.14)	Frequency [Hz], Vector (nantenna_lh)
power	exp1D (7.9.2.1.130)	Power [W], Vector (nantenna_lh). Time-dependent
n_par	vecflt_type (7.9.2.1.14)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Vectors (nantenna_lh). Time-dependent
position	rzphi1Dexp (7.9.2.1.236)	Reference global antenna position. Vectors (nantenna_lh). Time-dependent
setup	antennalh_setup (7.9.2.1.61)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.2.1.194)	Plasma edge characteristics in front of the antenna.
beam	rf_beam (7.9.2.1.229)	Beam characteristics

Type of: antennas:antenna_lh (1355)

7.9.2.1.60 antennaic_setup

Detailed description of ICRH antennas

member	type	description
straps	straps (7.9.2.1.283)	Properties of each IC antenna strap

Type of: antenna_ic:setup (1392)

7.9.2.1.61 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.2.1.174)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (1393)

7.9.2.1.62 atomlist

List of the atoms that enter the composition of the neutral species

member	type	description
amn	vecflt_type (7.9.2.1.14)	Atomic mass number; Vector (natm)
zn	vecflt_type (7.9.2.1.14)	Nuclear charge; Vector (natm)

Type of: composition_neutrals:atomlist (1411)

7.9.2.1.63 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.2.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.2.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: coresource:toroid_field (1360) I global_param:toroid_field (1474) I waves_global_param:toroid_field (1649)

7.9.2.1.64 beamlets

Detailed information on beamlets.

member	type	description
nbeamlets	vecint_type (7.9.2.1.15)	Number of beamlets of a unit; Vector(nunits)
position	rzphi2D (7.9.2.1.237)	Position of beamlets. Matrices(nunits, max_nbeamlets)
tang_rad_blt	matflt_type (7.9.2.1.12)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Matrix(nunits, max_nbeamlets)
angle_blt	matflt_type (7.9.2.1.12)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Matrix(nunits, max_nbeamlets)
pow_frc_blt	matflt_type (7.9.2.1.12)	Fraction of power of a unit injected by a beamlet; Matrix(nunits, max_nbeamlets)

Type of: setup_inject:beamlets (1599)

7.9.2.1.65 beamtracing

Beam-tracing or ray-tracing solver

member	type	description
npoints	vecint_type (7.9.2.1.15)	Number of points along each ray/beam. Vector of integers (nbeams)
power	vecflt_type (7.9.2.1.14)	Initial power in each ray/beam [W], Vector (nbeams). Time-dependent
dnpar	matflt_type (7.9.2.1.12)	Spectral width in refractive index associated with each ray/beam, Matrix of double precision real (nbeams, max_npoints). Time-dependent
length	matflt_type (7.9.2.1.12)	Ray/beam curvilinear length [m], Matrix of double precision real (nbeams, max_npoints). Time-dependent
position	waves_rtposition (7.9.2.1.320)	Ray/beam position
wavevector	waves_rtwavevector (7.9.2.1.321)	Ray/beam wave vector.
polarization	polarization (7.9.2.1.196)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.2.1.197)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (1409)

7.9.2.1.66 bezier

Components of the Bezier vectors associated to a node. I WONDER IF THIS IS GENERAL ENOUGH ... WHAT DO WE DO IF A DIFFERENT TYPE OF FINITE ELEMENT IS USED ?

member	type	description
u	matflt_type (7.9.2.1.12)	First Bezier vector components. Matrix(nnode,2)
v	matflt_type (7.9.2.1.12)	Second Bezier vector components. Matrix(nnode,2)
w	matflt_type (7.9.2.1.12)	Third Bezier vector components. Matrix(nnode,2)

Type of: properties:bezier (1536)

7.9.2.1.67 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.2.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.2.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.2.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: psi:boundary (1537)

7.9.2.1.68 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	array3dflt_type (7.9.2.1.6)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array3D(3,nneut,max_ntype)
type	matint_type (7.9.2.1.13)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nneut,max_ntype)
rho_tor	matint_type (7.9.2.1.13)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nneut,max_ntype).

Type of: corefieldneutral:boundary (1415) I corefieldneutrale:boundary (1416) I corefieldneutralv:boundary (1417)

7.9.2.1.69 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.2.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.2.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.2.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (1413)

7.9.2.1.70 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	array3dflt_type (7.9.2.1.6)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 3D (3,nimp,max_nzimp)
source	vecstring_type (7.9.2.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nimp)
type	matint_type (7.9.2.1.13)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nimp,max_nzimp)
rho	matflt_type (7.9.2.1.12)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nimp,max_nzimp)
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: coreimpur:boundary (1357)

7.9.2.1.71 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.2.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.2.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.2.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.2.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (1414)

7.9.2.1.72 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.2.1.263)	diagnostic setup information
measure	exp1D (7.9.2.1.130)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (1372)

7.9.2.1.73 codeparam

Code parameters

member	type	description
codename	string (7.9.2.1.4)	Name of the code
codeversion	string (7.9.2.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.2.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.2.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.2.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: antennas:codeparam (1355) I boundary:codeparam (1401) I boundaryimp:codeparam (1404) I coherentwave:codeparam (1409) I coredelta:codeparam (1356) I corefield:codeparam (1413) I corefieldion:codeparam (1414) I coreimpur:codeparam (1357) I coreneutrals:codeparam (1358) I coreprof:codeparam (1359) I coresource:codeparam (1360) I coretransp:codeparam (1361) I distribution:codeparam (1363) I distsource:codeparam (1364) I edge:codeparam (1366) I equilibrium:codeparam (1367) I flush:codeparam (1467) I launchs:codeparam (1370) I mhd:codeparam (1373) I nbi:codeparam (1375) I neoclassic:codeparam (1376) I orbit:codeparam (1377) I psi:codeparam (1537) I sawteeth:codeparam (1381) I scenario:codeparam (1382) I turbulence:codeparam (1387) I waves:codeparam (1389)

7.9.2.1.74 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+

member	type	description
recycling	recycling_neutrals (7.9.2.1.206)	Recycling coefficients
sputtering	sputtering_neutrals (7.9.2.1.279)	Sputtering coefficients

Type of: coreneutrals:coefficients (1358)

7.9.2.1.75 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
composition	composition (7.9.2.1.76)	Plasma composition (description of ion species).
global_param	waves_global_param (7.9.2.1.315)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.2.1.316)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.2.1.317)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.2.1.318)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.2.1.319)	2D profiles in poloidal cross-section
beamtracing	beamtracing (7.9.2.1.65)	Beam-tracing or ray-tracing solver
fullwave	fullwave (7.9.2.1.138)	Solution by full wave code
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: waves:coherentwave (1389)

7.9.2.1.76 composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.2.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.2.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.2.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.2.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)

Type of: coherentwave:composition (1409) I coredelta:composition (1356) I coreprof:composition (1359) I coresource:composition (1360) I coretransp:composition (1361) I distribution:composition (1363) I distsource:composition (1364) I neoclassic:composition (1376) I sawteeth:composition (1381) I turbulence:composition (1387)

7.9.2.1.77 composition_neutrals

Description of neutrals species

member	type	description
atomlist	atomlist (7.9.2.1.62)	List of the atoms that enter the composition of the neutral species
neutrallist	neutrallist (7.9.2.1.176)	Definition of neutral species
typelist	typelist (7.9.2.1.313)	Definition of types for each neutral species

Type of: coreneutrals:composition (1358)

7.9.2.1.78 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.2.1.4)	Type of coordinate system
grid	reggrid (7.9.2.1.228)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.2.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.2.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.2.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.2.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.2.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.2.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.2.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.2.1.233)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (1367) I mhd_plasma:coord_sys (1504) I mhd_vaccum:coord_sys (1505)

7.9.2.1.79 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.2.1.14)	Signal value; Time-dependent; Vector (nrho)
derivative	vecflt_type (7.9.2.1.14)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.2.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.2.1.69)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.2.1.273)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.2.1.87)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.2.1.135)	Fluxes of the quantity, two definitions. Time-dependent.
time_deriv	vecflt_type (7.9.2.1.14)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: coreprof:ne (1359) I coreprof:te (1359)

7.9.2.1.80 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.2.1.12)	Signal value; Time-dependent; Matrix (nrho,nion)
derivative	matflt_type (7.9.2.1.12)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.2.1.15)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.2.1.71)	Boundary condition for the transport equation
source_term	sourceion (7.9.2.1.275)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.2.1.89)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.2.1.137)	Fluxes of the quantity, two definitions. Time-dependent.
time_deriv	matflt_type (7.9.2.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: coreprof:ni (1359) I coreprof:ti (1359) I coreprof:vtor (1359)

7.9.2.1.81 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	array3dflt_type (7.9.2.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.2.1.6)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.2.1.68)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:n0 (1535)

7.9.2.1.82 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	array3dflt_type (7.9.2.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.2.1.6)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.2.1.68)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:t0 (1535)

7.9.2.1.83 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	array3dflt_type (7.9.2.1.6)	Signal value; Array3D(nrho,nneut,max_ntype)Time-dependent;
boundary	boundary_neutrals (7.9.2.1.68)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (1418) I corefieldneutralv0:radial (1418) I corefieldneutralv0:toroidal (1418)

7.9.2.1.84 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.2.1.83)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.2.1.83)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.2.1.83)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: profiles_neutrals:v0 (1535)

7.9.2.1.85 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.2.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (1532) I profiles1d:dpsidt (1532) I profiles1d:dpsidt_phi (1532) I profiles1d:dvprimedt (1532) I profiles1d:e_b (1532) I profiles1d:eparallel (1532) I profiles1d:jni (1532) I profiles1d:joh (1532) I profiles1d:jtot (1532) I profiles1d:pe (1532) I profiles1d:pr_parallel (1532) I profiles1d:pr_perp (1532) I profiles1d:pr_th (1532) I profiles1d:q (1532) I profiles1d:qoh (1532) I profiles1d:shear (1532) I profiles1d:sigmapar (1532) I profiles1d:vloop (1532) I profiles1d:zeff (1532) I psi:sigma_par (1537)

7.9.2.1.86 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.2.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (1532) I profiles1d:ns (1532) I profiles1d:pi (1532) I profiles1d:wtor (1532)

7.9.2.1.87 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.2.1.14)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.2.1.14)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (1413)

7.9.2.1.88 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	array3dflt_type (7.9.2.1.6)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array3D(nrho,nimp,max_nzimp)
vconv	array3dflt_type (7.9.2.1.6)	Convection coefficient [m.s^-1]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:transp_coef (1357)

7.9.2.1.89 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.2.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.2.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (1414)

7.9.2.1.90 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.2.1.130)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.2.1.130)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.2.1.130)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (1362)

7.9.2.1.91 cxsetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.2.1.236)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (1362)

7.9.2.1.92 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.2.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.2.1.4)	Date at which the data has been put in the DB
source	string (7.9.2.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.2.1.4)	Any additional comment
isref	integer (7.9.2.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.2.1.322)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.2.1.204)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (1354) I antennas:datainfo (1355) I coredelta:datainfo (1356) I coreimpur:datainfo (1357) I coreneutrals:datainfo (1358) I coreprof:datainfo (1359) I coresource:datainfo (1360) I coretransp:datainfo (1361) I cxdiag:datainfo (1362) I distribution:datainfo (1363) I distsource:datainfo (1364) I ecediag:datainfo (1365) I edge:datainfo (1366) I equilibrium:datainfo (1367) I flush:datainfo (1467) I ironmodel:datainfo (1369) I launchs:datainfo (1370) I limiter:datainfo (1371) I lineintegraldiag:datainfo (1498) I magdiag:datainfo (1372) I mhd:datainfo (1373) I msediag:datainfo (1374) I nbi:datainfo (1375) I neoclassic:datainfo (1376) I orbit:datainfo (1377) I pf-systems:datainfo (1378) I reference:datainfo (1380) I sawteeth:datainfo (1381) I scenario:datainfo (1382) I summary:datainfo (1383) I toroidfield:datainfo (1385) I tsdiag:datainfo (1386) I turbulence:datainfo (1387) I vessel:datainfo (1388) I waves:datainfo (1389)

7.9.2.1.93 desc_impur

Description of the impurities (list of ion species and possibly different charge states)

member	type	description
amn	vecflt_type (7.9.2.1.14)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.2.1.15)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.2.1.15)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.2.1.15)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.2.1.13)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.2.1.13)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)

Type of: coreimpur:desc_impur (1357) I edge:desc_impur (1366)

7.9.2.1.94 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.2.1.16)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.2.1.185)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.2.1.139)	Geometry of the iron segments

Type of: ironmodel:desc_iron (1369)

7.9.2.1.95 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.2.1.16)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.2.1.14)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.2.1.14)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
nelement	vecint_type (7.9.2.1.15)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.2.1.188)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (1521)

7.9.2.1.96 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.2.1.16)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.2.1.16)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.2.1.14)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.2.1.132)	Laplace proper filter
imin	vecflt_type (7.9.2.1.14)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.2.1.14)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.2.1.14)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.2.1.14)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.2.1.14)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.2.1.14)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (1526)

7.9.2.1.97 dist_ff

Orbit averaged (or Bounce averaged) zero order distribution function.

member	type	description
grid_type	vecint_type (7.9.2.1.15)	Type of grid. Vector (ndist_spec).
grid	dist_grid (7.9.2.1.101)	Grid on which the distribution function is calculated.
value	array4dflt_type (7.9.2.1.8)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; array 4d(ndist_spec, max_ndim1, max_ndim2, max_ndim3).

Type of: dist_func:f0 (1432) I dist_func:fullf (1432)

7.9.2.1.98 dist_func

Distribution functions

member	type	description
sol_type	vecint_type (7.9.2.1.15)	Solution type: 1 - full-f; 2 - delta-f. For the latter case delta-f is given by the test particles and the unperturbed distribution by the f0 branch; Vector(ndist_spec)
test_part	dist_test_part (7.9.2.1.117)	Distribution given as a set of test particles.
f0	dist_ff (7.9.2.1.97)	Orbit averaged (or Bounce averaged) zero order distribution function.
fullf	dist_ff (7.9.2.1.97)	Orbit averaged (or Bounce averaged) full-f distribution function.

Type of: distribution:dist_func (1363)

7.9.2.1.99 dist_glob

Global parameters (in most cases volume integrated and surface averaged quanatities).

member	type	description
enrg	vecflt_type (7.9.2.1.14)	Energy content of of a distribution species [J]; Time-dependent; Vector(ndist_spec)
enrg_para	vecflt_type (7.9.2.1.14)	Parallel energy content of of a distribution species [J] Time-dependent; Vector(ndist_spec)
pow_coll_i	matflt_type (7.9.2.1.12)	Collisional power to ions [W]; Time-dependent; Matrix(ndist_spec, nion)
pow_coll_e	vecflt_type (7.9.2.1.14)	Collisional power to the electrons [W]; Time-dependent; Vector(ndist_spec)
therm_src	dist_src_snk_tot (7.9.2.1.115)	Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_glob_dist_losses (7.9.2.1.100)	Losses of the distribution species (orbit losses and neutralisation losses).
cur_dr_tor	vecflt_type (7.9.2.1.14)	Toroidal current of non-thermal particles (excluding electron back current for fast ions) [A]; Time-dependent; Vector(ndist_spec).
trq_i	matflt_type (7.9.2.1.12)	Collisional torque to background ions [N.m]; Time dependent; Matrix (ndist_spec, nion)
trq_e	vecflt_type (7.9.2.1.14)	Collisional torque to electrons [N.m]; Time dependent; Vector(ndist_spec)
trq_j_rxb	vecflt_type (7.9.2.1.14)	Torque due to radial currents of non-thermal particles [N.m]; Time-dependent; Vector(ndist_spec).
nucl_reac_th	dist_nucl_reac_th (7.9.2.1.105)	Nuclear reactions between the calculated species and other species assumed to have thermal distributions.
nucl_reac_sf	dist_nucl_reac_sf (7.9.2.1.104)	Nuclear reactions of the calculated species with itself (thermal + non-thermal).

Type of: distribution:global_param (1363)

7.9.2.1.100 dist_glob_dist_losses

Losses of the distribution species (orbit losses and neutralisation losses).

member	type	description
orb_loss	dist_src_snk_tot (7.9.2.1.115)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_tot (7.9.2.1.115)	Losses due to neutralisation of distribution ions (charge exchange etc.)

Type of: dist_glob:losses (1433)

7.9.2.1.101 dist_grid

Grid on which the distribution function is calculated.

member	type	description
dim1	matflt_type (7.9.2.1.12)	First dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim1).

member	type	description
ndim1	vecint_type (7.9.2.1.15)	Size of the first dimension in phase space, for each species; Vector (ndist_spec).
dim2	matflt_type (7.9.2.1.12)	Second dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim2).
ndim2	vecint_type (7.9.2.1.15)	Size of the second dimension in phase space, for each species; Vector (ndist_spec).
dim3	matflt_type (7.9.2.1.12)	Third dimension in phase space; Time-dependent; Matrix (ndist_spec, max_ndim3).
ndim3	vecint_type (7.9.2.1.15)	Size of the third dimension in phase space, for each species; Vector (ndist_spec).
jacobian	array4dflt_type (7.9.2.1.8)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array4d(ndist_spec, max_ndim1, max_ndim2, max_ndim3).

Type of: dist_ff:grid (1431)

7.9.2.1.102 dist_input_src

Input sources of particles and power for the distribution species (to aid diagnosing the code output).

member	type	description
particle_src	dist_particle_src (7.9.2.1.106)	Particle source
wave_src	dist_wave_src (7.9.2.1.118)	Auxiliary wave absorbed by the distribution species

Type of: distribution:input_src (1363)

7.9.2.1.103 dist_nucl_reac

Information on nuclear reactions involving the calculated species.

member	type	description
nreacs	vecint_type (7.9.2.1.15)	Number of possible nuclear reactions (with background species and for different branches); Vector(ndist_spec)
point_reac	matint_type (7.9.2.1.13)	Pointer to a species in composition who can undergo a nuclear reaction with the calculated species; Matrix(ndist_spec, max_nreac)
id_reac	matint_type (7.9.2.1.13)	Identification of the reaction between the calculated species and a background species (including which branch if applicable); Time-dependent; integer matrix(ndist_spec, max_nreac). Table defining the index of reactions to be provided.

Type of: distribution:nucl_reac (1363)

7.9.2.1.104 dist_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.2.1.14)	Reaction rate [1/s]; Time-dependent; Vector (ndist_spec)
power	vecflt_type (7.9.2.1.14)	Fusion reaction power[W]; Time-dependent; Vector (ndist_spec)

Type of: dist_glob:nucl_reac_sf (1433)

7.9.2.1.105 dist_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	matflt_type (7.9.2.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (ndist_spec, max_nreac)
power	matflt_type (7.9.2.1.12)	Fusion reaction power[W]; Time-dependent; Matrix(ndist_spec, max_nreac)

Type of: dist_glob:nucl_reac_th (1433)

7.9.2.1.106 dist_particle_src

Particle source

member	type	description
total	dist_src_snk_tot (7.9.2.1.115)	Total source of particles and power (NBI, fusion products, pellets etc.)

member	type	description
volume_intgr	dist_src_snk_vol (7.9.2.1.116)	Volume integrated source of particles and power (NBI, fusion products, pellets etc.)
flux_surf_av	dist_src_snk_surf (7.9.2.1.114)	Flux surface averaged source of particles and power (NBI, fusion products, pellets etc.)

Type of: dist_input_src:particle_src (1436)

7.9.2.1.107 dist_prof_surf_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_surf (7.9.2.1.114)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_surf (7.9.2.1.114)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:lossesd (1447)

7.9.2.1.108 dist_prof_surf_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	matflt_type (7.9.2.1.12)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (ndist_spec, max_npsi)
power	matflt_type (7.9.2.1.12)	Fusion reaction power [W.m^-3]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_profiles:nucl_rd_sf (1447)

7.9.2.1.109 dist_prof_surf_nucl_reac_th

Nuclear reactions between the cacluated species and oher species assumed to have thermal distributions.

member	type	description
rated	array3dflt_type (7.9.2.1.6)	Reaction rate [s^-1.m^-3]; Time dependent; Array3d(ndist_spec, nreac_max, max_npsi)
powerd	array3dflt_type (7.9.2.1.6)	Nuclear reaction power density [W.m^-3]; Time dependent; Array3d(ndist_spec, nreac_max, max_npsi)

Type of: dist_profiles:nucl_rd_th (1447)

7.9.2.1.110 dist_prof_vol_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_vol (7.9.2.1.116)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_vol (7.9.2.1.116)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:losses (1447)

7.9.2.1.111 dist_prof_vol_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	matflt_type (7.9.2.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (ndist_spec, max_npsi)
power	matflt_type (7.9.2.1.12)	Fusion reaction power[W]; Time-dependent; Matrxi (ndist_spec, max_npsi)

Type of: dist_profiles:nucl_reac_sf (1447)

7.9.2.1.112 dist_prof_vol_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	array3dflt_type (7.9.2.1.6)	Reaction rate [1/s]; Time-dependent; Array3D (ndist_spec, max_nreac, max_npsi)
power	array3dflt_type (7.9.2.1.6)	Fusion reaction power[W]; Time-dependent; Array3D(ndist_spec, max_nreac, max_npsi)

Type of: dist_profiles:nucl_reac_th (1447)

7.9.2.1.113 dist_profiles

Profiles (volume integrated and flux surface averaged)

member	type	description
npsi	vecint_type (7.9.2.1.15)	Number of points of the radial grid for each species. Vector(ndist_spec)
rho_tor_norm	matflt_type (7.9.2.1.12)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; matrix (ndist_spec, max_npsi)
rho_tor	matflt_type (7.9.2.1.12)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; matrix (ndist_spec, max_npsi)
psi	matflt_type (7.9.2.1.12)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; matrix (ndist_spec, max_npsi)
enrgd_tot	matflt_type (7.9.2.1.12)	Flux surface averaged energy density of a distribution species [J/m^3]; Time-dependent; Matrix(ndist_spec, max_npsi)
enrgd_para	matflt_type (7.9.2.1.12)	Flux surface averaged parallel energy density of a distribution species [J/m^3] Time-dependent; Matrix(ndist_spec, max_npsi).
powd_coll_i	array3dflt_type (7.9.2.1.6)	Flux surface averaged collisional power to ions [W.m^-3]; Time-dependent; Array3d(ndist_spec, nion, max_npsi)
powd_coll_e	matflt_type (7.9.2.1.12)	Flux surface averaged collisional power to the electrons [W.m^-3]; Time-dependent; Matrix(ndist_spec, max_npsi)
therm_srcd	dist_src_snk_surf (7.9.2.1.114)	Flux surface averaged source of particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
lossesd	dist_prof_surf_dist_losses (7.9.2.1.107)	Particle loss densities due to charge exchange events with neutrals or orbits intersecting material surfaces.
curd_fp	matflt_type (7.9.2.1.12)	Flux surface averaged toroidal current density of non-thermal (fast) particles of the distribution species (excluding electron back current for fast ions) [A.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi).
curd_dr	vecflt_type (7.9.2.1.14)	Total toroidal driven current density (including electron back current in the presence of fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi)
trqd_i	array3dflt_type (7.9.2.1.6)	Flux surface averaged collisional toroidal torque to background ions [N.m^-2]; Time dependent; Array3d (ndist_spec, nion, max_npsi)
trqd_e	matflt_type (7.9.2.1.12)	Flux surface averaged collisional toroidal torque density to electrons [N.m^-2]; Time dependent; Matrix(ndist_spec, max_npsi)
trqd_jrxb	matflt_type (7.9.2.1.12)	Toroidal torque density due to radial currents of non-thermal particles of the distribution species [N.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi)
nucl_rd_th	dist_prof_surf_nucl_reac_th (7.9.2.1.109)	Nuclear reaction rate densities for reactions between the cacluated species and other species assumed to have thermal distributions.
nucl_rd_sf	dist_prof_surf_nucl_reac_sf (7.9.2.1.108)	Nuclear reaction rate densities for reactions of the calculated species with itself (thermal + non-thermal).
enrg_tot	matflt_type (7.9.2.1.12)	Energy content of of a distribution species [J] inside a flux surface; Time-dependent; Matrix(ndist_spec, max_npsi)
enrg_para	matflt_type (7.9.2.1.12)	Parallel energy content of a distribution species [J] inside a flux surface; Time-dependent; Matrix(ndist_spec, max_npsi)
pow_coll_i	array3dflt_type (7.9.2.1.6)	Collisional power to ions inside a flux surface [W]; Time-dependent; Array3d(ndist_spec, nion, max_npsi)
pow_coll_e	matflt_type (7.9.2.1.12)	Collisional power to the electrons inside a flux surface [W]; Time-dependent; Matrix(ndist_spec, max_npsi)
therm_src	dist_src_snk_vol (7.9.2.1.116)	Source particles and power inside a flux surface due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_prof_vol_dist_losses (7.9.2.1.110)	Particle loss inside flux surface due to charge exchange events.
cur_fp	matflt_type (7.9.2.1.12)	Toroidal current of non-thermal (fast) particles driven inside a flux surface (does not include electron back current for fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi)
cur_dr	matflt_type (7.9.2.1.12)	Total toroidal current driven inside a flux surface (including electron back current in the presence of fast ions) [A]; Time-dependent; Matrix(ndist_spec, max_npsi).
trq_i	array3dflt_type (7.9.2.1.6)	Collisional toroidal torque to background ions inside a flux surface [N.m]; Time dependent; Array3d (ndist_spec, nion, max_npsi)
trq_e	matflt_type (7.9.2.1.12)	Collisional toroidal torque to electrons inside a flux surface [N.m]; Time dependent; Matrix(ndist_spec, max_npsi)
trq_j_rxb	matflt_type (7.9.2.1.12)	Toroidal torque due to radial currents of non-thermal particles of the distribution species [N.m]; Time-dependent; Matrix(ndist_spec, max_npsi)

member	type	description
nucl_reac_th	dist_prof_vol_nucl_reac_th (7.9.2.1.112)	Nuclear reactions inside a flux surface involving the distribution species and other species assumed to be thermal.
nucl_reac_sf	dist_prof_vol_nucl_reac_sf (7.9.2.1.111)	Nuclear reactions inside a flux surface of the calculated species with itself (thermal + non-thermal).

Type of: distribution:profiles_1d (1363)

7.9.2.1.114 dist_src_snk_surf

Losses due to orbits intersecting a material surface.

member	type	description
particlesd	matflt_type (7.9.2.1.12)	Source/sink particles [s^-1 m^-3]; Time-dependedent; Matrix(ndist_spec, max_npsi)
powerd	matflt_type (7.9.2.1.12)	Power density associated with the source/sink of particles [W.m^-3]; Time-dependent; Matrix(ndist_spec, max_npsi)
torqued	matflt_type (7.9.2.1.12)	Torque density due to the source/sink of particles [N.m^-2]; Time-dependent; Matrix(ndist_spec, max_npsi)

Type of: dist_particle_src:flux_surf_av (1440) I dist_prof_surf_dist_losses:neutr_loss (1441) I dist_prof_surf_dist_losses:orb_loss (1441) I dist_profiles:therm_srcd (1447)

7.9.2.1.115 dist_src_snk_tot

Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).

member	type	description
particles	vecflt_type (7.9.2.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector(ndist_spec)
power	vecflt_type (7.9.2.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector(ndist_spec)
torque	vecflt_type (7.9.2.1.14)	Torque due to the source/sink of particles [N.m]; Time-dependent; Vector (ndist_spec).

Type of: dist_glob:therm_src (1433) I dist_glob_dist_losses:neutr_loss (1434) I dist_glob_dist_losses:orb_loss (1434) I dist_particle_src:total (1440)

7.9.2.1.116 dist_src_snk_vol

Losses due to orbits intersecting a material surface.

member	type	description
particles	matflt_type (7.9.2.1.12)	Source/sink particles [1/s]; Time-dependedent; Matrix(ndist_spec, max_npsi)
power	matflt_type (7.9.2.1.12)	Power associated with the source/sink of particles [W]; Time-dependent; Matrix(ndist_spec, max_npsi)
torque	matflt_type (7.9.2.1.12)	Torque due to the source/sink of particles [N.m]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_particle_src:volume_intgr (1440) I dist_prof_vol_dist_losses:neutr_loss (1444) I dist_prof_vol_dist_losses:orb_loss (1444) I dist_profiles:therm_src (1447)

7.9.2.1.117 dist_test_part

Distribution given as a set of test particles.

member	type	description
nvar	vecflt_type (7.9.2.1.14)	Number of variables associated with a test particle; Vector (ndist_spec)
var_id	matint_type (7.9.2.1.13)	Identification of a variable; Matrix (ndist_spec, 5)
var1	matflt_type (7.9.2.1.12)	Phase space variables one characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var2	matflt_type (7.9.2.1.12)	Phase space variables two characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var3	matflt_type (7.9.2.1.12)	Phase space variables three characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var4	matflt_type (7.9.2.1.12)	Phase space variables four characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)

member	type	description
var5	matflt_type (7.9.2.1.12)	Phase space variables five characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
var6	matflt_type (7.9.2.1.12)	Phase space variables six characterising a test particle; Time-dependent; Matrix (ndist_spec, ntpart)
weight	matflt_type (7.9.2.1.12)	Weight of a test particle; Time-dependent; Matrix (ndist_spec, ntpart)

Type of: dist_func:test_part (1432)

7.9.2.1.118 dist_wave_src

Auxiliary wave absorbed by the distribution species

member	type	description
type	vecstring_type (7.9.2.1.16)	Wave type (LH, EC, IC, ...), can be a combination of these if several wave types are absorbed by this species. Vector of strings (ndist_spec)
wave_power	vecflt_type (7.9.2.1.14)	Auxiliary wave power absorbed by the distribution species [W]; Time-dependent; Vector (ndist_spec).
wave_powerd	matflt_type (7.9.2.1.12)	Auxiliary flux surface averaged wave power density absorbed by the distribution species [W/m^3]; Time-dependent; Matrix (ndist_spec, max_npsi)

Type of: dist_input_src:wave_src (1436)

7.9.2.1.119 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	vecflt_type (7.9.2.1.14)	Total power source [W]; Time-dependent. Vector(nsrc_spec)
src_rate	vecflt_type (7.9.2.1.14)	Particle source rate [1/s]; Time-dependent; Vector(nsrc_spec)

Type of: distsource:global_param (1364)

7.9.2.1.120 distsource_profiles_1d

1D radial profiles

member	type	description
npsi	vecint_type (7.9.2.1.15)	Number of points of the radial grid for each species. Vector(nsrc_spec)
rho_tor_norm	matflt_type (7.9.2.1.12)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; matrix(nsrc_spec, max_npsi)
rho_tor	matflt_type (7.9.2.1.12)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; matrix(nsrc_spec, max_npsi)
psi	matflt_type (7.9.2.1.12)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; matrix(nsrc_spec, max_npsi)
pow_den	matflt_type (7.9.2.1.12)	Flux surface averaged power density [W/m^3]; Time-dependent; Matrix(nsrc_spec, max_npsi)
src_rate	matflt_type (7.9.2.1.12)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Matrix(nsrc_spec, max_npsi)

Type of: distsource:profiles_1d (1364)

7.9.2.1.121 distsource_rect_grid

Details of rectangular grids.

member	type	description
ndim1	vecint_type (7.9.2.1.15)	Number of grid points in the first dimension in phase space; vector (nsrc_spec)
ndim2	vecint_type (7.9.2.1.15)	Number of grid points in the second dimension in phase space; vector (nsrc_spec)
ndim3	vecint_type (7.9.2.1.15)	Number of grid points in the third dimension in phase space; vector (nsrc_spec)
ndim4	vecint_type (7.9.2.1.15)	Number of grid points in the fourth dimension in phase space; vector (nsrc_spec)
dim1	matflt_type (7.9.2.1.12)	Grid in the first dimension in phase space; Time-dependent; matrix(nsrc_spec, max_ndim1)
dim2	matflt_type (7.9.2.1.12)	Grid in the second dimension in phase space; Time-dependent; matrix(nsrc_spec, max_ndim2)
dim3	matflt_type (7.9.2.1.12)	Grid in the third dimension in phase space; Time-dependent; Matrix (nsrc_spec, max_ndim3)

member	type	description
dim4	matflt_type (7.9.2.1.12)	Grid in the fourth dimension in phase space; Time-dependent; Matrix (nsrc_spec, max_ndim4)
jacobian	array5dflt_type (7.9.2.1.9)	Jacobian of the transformation of the phase space grid variables; Time-dependent; array5d (nsrc_spec, max_ndim1, max_ndim2, max_ndim3, max_ndim4)

Type of: source_4d:rect_grid (1602)

7.9.2.1.122 ecemeasure

Measured values

member	type	description
te	exp1D (7.9.2.1.130)	Electron temperature [eV]. Vector (nchannels)

Type of: ecediag:measure (1365)

7.9.2.1.123 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.2.1.14)	Frequency of the ECE channels. Vector (nchannels)
position	rzphi1Dexp (7.9.2.1.236)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: ecediag:setup (1365)

7.9.2.1.124 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.2.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.2.1.4)	Name of the device
shot	integer (7.9.2.1.3)	Shot number
run	integer (7.9.2.1.3)	Run number

Type of: mdinfo:md_entry (1503)

7.9.2.1.125 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.2.1.128)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.2.1.127)	Vacuum field times radius in the toroidal field magnet [T.m];
faraday	eqmes1D (7.9.2.1.128)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.2.1.128)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.2.1.127)	Plasma current [A];
isoflux	isoflux (7.9.2.1.159)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.2.1.128)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.2.1.167)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.2.1.128)	MSE angles [rad]
ne	eqmes1D (7.9.2.1.128)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.2.1.128)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.2.1.128)	Total pressure [Pa]
q	q (7.9.2.1.205)	Safety factor
xpts	xpts (7.9.2.1.323)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (1367)

7.9.2.1.126 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.2.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.2.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary	rz1D_npoints (7.9.2.1.232)	RZ description of the plasma boundary; Time-dependent;
geom_axis	rz0D (7.9.2.1.230)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.2.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.2.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.2.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.2.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts	rz1D (7.9.2.1.231)	Position of the Xpoints, first is the active xpoint if diverted [m]; Time-dependent; Vector (npoint)
left_low_st	rz0D (7.9.2.1.230)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.2.1.230)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.2.1.230)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.2.1.230)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.2.1.230)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (1367) I scenario:eqgeometry (1382)

7.9.2.1.127 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.2.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.2.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.2.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.2.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.2.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.2.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.2.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.2.1.2)	chiˆ2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (1459) I eqconstraint:i_plasma (1459)

7.9.2.1.128 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.2.1.14)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.2.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.2.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.2.1.15)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.2.1.14)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.2.1.14)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.2.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.2.1.14)	chiˆ2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (1459) I eqconstraint:faraday (1459) I eqconstraint:flux (1459) I eqconstraint:jsurf (1459) I eqconstraint:mse (1459) I eqconstraint:ne (1459) I eqconstraint:pfcurrent (1459) I eqconstraint:pressure

(1459) I magnet_iron:mr (1501) I magnet_iron:mz (1501)

7.9.2.1.129 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.2.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.2.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.2.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: magdiag:diamagflux (1372) I magdiag:ip (1372) I toroidfield:bvac_r (1385) I toroidfield:current (1385)

7.9.2.1.130 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.2.1.14)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.2.1.14)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.2.1.14)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: antenna_ec:power (1391) I antenna_ic:frequency (1392) I antenna_ic:power (1392) I antenna_lh:power (1393) I bpol_probes:measure (1406) I cxmeasure:ti (1424) I cxmeasure:vpol (1424) I cxmeasure:vtor (1424) I ecemeasure:te (1456) I flux_loops:measure (1468) I lineintegraldiag:measure (1498) I magnetise:mr (1502) I magnetise:mz (1502) I msediag:measure (1374) I nbi:halfe_cfr (1375) I nbi:inj_eng_unit (1375) I nbi:pow_unit (1375) I nbi:thirde_cfr (1375) I pfcoils:coilcurrent (1521) I pfcoils:coilvoltage (1521) I pfsupplies:current (1526) I pfsupplies:voltage (1526) I rzphi1Dexp:phi (1570) I rzphi1Dexp:r (1570) I rzphi1Dexp:z (1570) I tsmeasure:ne (1636) I tsmeasure:te (1636)

7.9.2.1.131 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.2.1.12)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.2.1.12)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.2.1.12)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: modules:amplitude (1508) I modules:phase (1508) I straps:phase (1617)

7.9.2.1.132 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.2.1.12)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.2.1.12)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (1430)

7.9.2.1.133 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
position	rz1D (7.9.2.1.231)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.2.1.12)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)

member	type	description
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: equilibrium:flush (1367)

7.9.2.1.134 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.2.1.264)	diagnostic setup information
measure	exp1D (7.9.2.1.130)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (1372)

7.9.2.1.135 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.2.1.14)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.2.1.14)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (1413)

7.9.2.1.136 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	array3dflt_type (7.9.2.1.6)	Flux of the field calculated from the transport coefficients. Time-dependent; Array3D (nrho,nion,max_nzimp)
flux_interp	array3dflt_type (7.9.2.1.6)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array3D (nrho,nion,max_nzimp)

Type of: coreimpur:flux (1357)

7.9.2.1.137 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.2.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.2.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (1414)

7.9.2.1.138 fullwave

Solution by full wave code

member	type	description
pol_decomp	pol_decomp (7.9.2.1.195)	Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.
local	local (7.9.2.1.165)	Local description of the wave fields. Uses the grid in grid_2d.

Type of: coherentwave:fullwave (1409)

7.9.2.1.139 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.2.1.15)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.2.1.233)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (1428)

7.9.2.1.140 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.2.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.2.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.2.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.2.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.2.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.2.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.2.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.2.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.2.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.2.1.166)	Magnetic axis values
q_95	float (7.9.2.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.2.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.2.1.63)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.2.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.2.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (1367)

7.9.2.1.141 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.2.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.2.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.2.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.2.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.2.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.2.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.2.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.2.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.2.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (1359)

7.9.2.1.142 grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.2.1.14)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.2.1.14)	Second dimension values; Time-dependent; Vector (ndim2)

member	type	description
connect	matint_type (7.9.2.1.13)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: profiles_2d:grid (1534)

7.9.2.1.143 grid_field_el

Physical field defined on a complex grid, for electron quantities

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
value	vecflt_type (7.9.2.1.14)	Value of the physical quantity given on each super-object (tensorial product of all objects in spaces defined by gridlink). Vector (nvalue). Time-dependent. NB the maximum nvalue is equal to product_on_spaces(nobject(gridlink(ispace)))).

Type of: grid_fluid:potential (1479) I grid_ne:main_field (1485) I grid_te:main_field (1488)

7.9.2.1.144 grid_field_ion

Physical field defined on a complex grid, for ion quantities

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
value	matflt_type (7.9.2.1.12)	Value of the physical quantity given on each super-object (tensorial product of all objects in spaces defined by gridlink), for each ion/impurity species. Matrix (nvalue, nimp). Time-dependent. NB the maximum nvalue is equal to product_on_spaces(nobject(gridlink(ispace)))).

Type of: grid_ni:main_field (1486) I grid_ti:main_field (1489)

7.9.2.1.145 grid_fluid

Fluid quantities

member	type	description
ne	grid_ne (7.9.2.1.151)	Electron density [m^-3]
te	grid_te (7.9.2.1.154)	Electron temperature [eV]
te_perp	grid_te (7.9.2.1.154)	Electron perpendicular temperature [eV]
ve_dia	grid_ne (7.9.2.1.151)	Electron diamagnetic velocity [m/s]
ve_par	grid_ne (7.9.2.1.151)	Electron parallel velocity [m/s]
ve_rad	grid_ne (7.9.2.1.151)	Electron radial velocity [m/s]
ni	grid_ni (7.9.2.1.152)	Ion density [m^-3]
ti	grid_ti (7.9.2.1.155)	Ion temperature [eV]
ti_perp	grid_ti (7.9.2.1.155)	Ion perpendicular temperature [eV]
vi_dia	grid_ni (7.9.2.1.152)	Ion diamagnetic velocity [m/s]
vi_par	grid_ni (7.9.2.1.152)	Ion parallel velocity [m/s]
vi_rad	grid_ni (7.9.2.1.152)	Ion radial velocity [m/s]
potential	grid_field_el (7.9.2.1.143)	Electric potential [V]

Type of: edge:fluid (1366)

7.9.2.1.146 grid_fluxes_heat_el

Fluxes

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
heat_par	vecflt_type (7.9.2.1.14)	Parallel heat flux. Time-dependent. Vector(nvalue)
heat_dia	vecflt_type (7.9.2.1.14)	Diamagnetic heat flux. Time-dependent. Vector (nvalue)
heat_rad	vecflt_type (7.9.2.1.14)	Radial heat flux. Time-dependent. Vector(nvalue)

Type of: grid_te:fluxes (1488)

7.9.2.1.147 grid_fluxes_heat_ion

Fluxes, heat and energy, ion

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
heat_par	matflt_type (7.9.2.1.12)	Parallel heat flux. Matrix(nvalue,nimp)
heat_dia	matflt_type (7.9.2.1.12)	Diamagnetic heat flux. Matrix(nvalue,nimp)
heat_rad	matflt_type (7.9.2.1.12)	Radial heat flux. Matrix(nvalue,nimp)

Type of: grid_ti:fluxes (1489)

7.9.2.1.148 grid_fluxes_part_el

Fluxes

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
flux_par	vecflt_type (7.9.2.1.14)	Parallel flux. Time-dependent. Vector(nvalue)
flux_dia	vecflt_type (7.9.2.1.14)	Diamagnetic flux. Time-dependent. Vector (nvalue)
flux_rad	vecflt_type (7.9.2.1.14)	Radial flux. Time-dependent. Vector(nvalue)

Type of: grid_ne:fluxes (1485)

7.9.2.1.149 grid_fluxes_part_ion

Fluxes, heat and energy, ion

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
flux_par	matflt_type (7.9.2.1.12)	Parallel flux. Time-dependent. Matrix(nvalue,nimp)
flux_dia	matflt_type (7.9.2.1.12)	Diamagnetic flux. Time-dependent. Matrix(nvalue,nimp)
flux_rad	matflt_type (7.9.2.1.12)	Radial flux. Time-dependent. Matrix(nvalue,nimp)

Type of: grid_ni:fluxes (1486)

7.9.2.1.150 grid_full

Generic definition of a complex grid

member	type	description
spaces(:)	grid_space (7.9.2.1.153)	Definition of the grid spaces. Structure array(nspace).
metric	vecflt_type (7.9.2.1.14)	Grid metric. INSERT HERE CLARIFIED DEFINITION Vector. DIMENSIONALITY ?

Type of: edge:grid (1366)

7.9.2.1.151 grid_ne

Electron density

member	type	description
main_field	grid_field_el (7.9.2.1.143)	Main physical quantity
fluxes	grid_fluxes_part_el (7.9.2.1.148)	Fluxes
transp_coef	grid_transp_coef_el (7.9.2.1.156)	Transport coefficients

Type of: grid_fluid:ne (1479) I grid_fluid:ve_dia (1479) I grid_fluid:ve_par (1479) I grid_fluid:ve_rad (1479)

7.9.2.1.152 grid_ni

Ion density

member	type	description
main_field	grid_field_ion (7.9.2.1.144)	Main physical quantity
fluxes	grid_fluxes_part_ion (7.9.2.1.149)	Fluxes
transp_coef	grid_transp_coef_ion (7.9.2.1.157)	Transport coefficients

Type of: grid_fluid:ni (1479) I grid_fluid:vi_dia (1479) I grid_fluid:vi_par (1479) I grid_fluid:vi_rad (1479)

7.9.2.1.153 grid_space

Description of a space in the grid

member	type	description
type_coord	vecint_type (7.9.2.1.15)	Type of coordinates describing the space. Vector of integers (ncoord)
node_value	matflt_type (7.9.2.1.12)	Numerical value of the node coordinates. Matrix (nnode,ncoord)
alter_coord	alter_coord (7.9.2.1.56)	Alternative coordinate system possibly used to describe the space (e.g. rho_tor versus rho_tor_norm). NB : when specifying straight lines to build cells, these are intended to refer to the primary (main) system and may not be straight on the alternative system.
nobject	vecint_type (7.9.2.1.15)	Number of object defined in the space, for each dimension. Vector of integers (ncoord)
nobject_bou	vecint_type (7.9.2.1.15)	Maximum number of boundaries ("faces") of an object, for each dimension. Vector of integers (ncoord)
neighborside	vecint_type (7.9.2.1.15)	Maximum number of neighbors lying on a "face" of objects for each dimension. Vector of integers (ncoord)
objdef	array3dint_type (7.9.2.1.7)	Object definition for each dimensionality (last index). Each object is defined recursively by listing its boundaries, which are objects of lower (dim-1) dimensionality. The first index refers to the objects listed, the second one points to the objects of lower dimensionality, the third one refers to the dimensionality of the list. Unused slots of the matrix should be set as UNDEFINED. Array3D of integers (max_nobject(icoord), max_nobjectbou_(icoord), ncoord). Max being here over icoord.
neighbors	array3dint_type (7.9.2.1.7)	Neighbors of a given object, specified only for the highest dimensionality. Unused slots of the matrix should be set as UNDEFINED. Array3D of integers (max_nobject,max_nobject_bou, ncoord). Max being here over icoord.
properties	properties (7.9.2.1.202)	Space properties

Type of: grid_full:spaces (1484)

7.9.2.1.154 grid_te

Electron temperature [eV], heat fluxes

member	type	description
main_field	grid_field_el (7.9.2.1.143)	Main physical quantity
fluxes	grid_fluxes_heat_el (7.9.2.1.146)	Fluxes
transp_coef	grid_transp_coef_el (7.9.2.1.156)	Transport coefficients

Type of: grid_fluid:te (1479) I grid_fluid:te_perp (1479)

7.9.2.1.155 grid_ti

Ion temperature [eV], heat fluxes

member	type	description
main_field	grid_field_ion (7.9.2.1.144)	Main physical quantity
fluxes	grid_fluxes_heat_ion (7.9.2.1.147)	Fluxes
transp_coef	grid_transp_coef_ion (7.9.2.1.157)	Transport coefficients

Type of: grid_fluid:ti (1479) I grid_fluid:ti_perp (1479)

7.9.2.1.156 grid_transp_coef_el

Transport coefficients for electron quantities

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
diff_dia	vecflt_type (7.9.2.1.14)	Diamagnetic diffusivity [m^2/s]. Time-dependent. Vector(nvalue).
diff_rad	vecflt_type (7.9.2.1.14)	Radial diffusivity [m^2/s]. Time-dependent. Vector(nvalue).

Type of: grid_ne:transp_coef (1485) I grid_te:transp_coef (1488)

7.9.2.1.157 grid_transp_coef_ion

Transport coefficients for ion quantities

member	type	description
gridlink	vecint_type (7.9.2.1.15)	For each space, dimension of the objects that is used to form the grid for this physical quantity. Vector of integers (nspace).
pointer	matint_type (7.9.2.1.13)	For each value, points to the object index in each space. Matrix of integers (nspace, nvalue)
diff_dia	matflt_type (7.9.2.1.12)	Diamagnetic diffusivity [m^2/s]. Time-dependent. Matrix(nvalue, nimp).
diff_rad	matflt_type (7.9.2.1.12)	Radial diffusivity [m^2/s]. Time-dependent. Matrix(nvalue, nimp).

Type of: grid_ni:transp_coef (1486) I grid_ti:transp_coef (1489)

7.9.2.1.158 inj_spec

Injected species

member	type	description
amn	vecflt_type (7.9.2.1.14)	Atomic mass number; Vector (nunits)
zn	vecflt_type (7.9.2.1.14)	Nuclear charge; Vector (nunits)
zion	vecflt_type (7.9.2.1.14)	Ion charge; Vector (nunits)

Type of: nbi:inj_spec (1375)

7.9.2.1.159 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.2.1.231)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.2.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.2.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.2.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.2.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.2.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (1459)

7.9.2.1.160 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.2.1.14)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (1537)

7.9.2.1.161 launchangles

Launching angles of the beam

member	type	description
alpha	vecflt_type (7.9.2.1.14)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad], Vector (nantenna_ec). Time-dependent
beta	vecflt_type (7.9.2.1.14)	Toroidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad], Vector (nantenna_ec). Time-dependent

Type of: antenna_ec:launchangles (1391)

7.9.2.1.162 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.2.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.2.1.12)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.2.1.14)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (1611)

7.9.2.1.163 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.2.1.15)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.2.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.2.1.12)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.2.1.12)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.2.1.6)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (1611)

7.9.2.1.164 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.2.1.92)	Generic information on a data item
expression	string (7.9.2.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.2.1.266)	Geometric description of the lines of sight
measure	exp1D (7.9.2.1.130)	Measured value. Time-dependent; Vector (nchords)

member	type	description
time	float (7.9.2.1.2)	Time [s]; Time-dependent; Scalar

7.9.2.1.165 local

Local description of the wave fields. Uses the grid in grid_2d.

member	type	description
e_plus	array3dflt_type (7.9.2.1.6)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.2.1.6)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.2.1.6)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.2.1.6)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.2.1.7)	Magnitude of wave electric field normal to a flux surface [V/m]; Time dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.2.1.6)	Phase of wave electric field normal to a flux surface [rad]; Time dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.2.1.6)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.2.1.6)	Phase of wave electric field tangent to a flux surface [rad]; Time dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.2.1.6)	Magnitude of parallel wave electric field [V/m]; Time dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.2.1.6)	Phase of parallel wave electric field [rad]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.2.1.6)	Magnitude of wave magnetic field normal to a flux surface [T]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.2.1.6)	Phase of wave magnetic field normal to a flux surface [rad]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.2.1.6)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.2.1.6)	Phase of wave magnetic field tangent to a flux surface [rad]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.2.1.6)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.2.1.6)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (1472)

7.9.2.1.166 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.2.1.230)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.2.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.2.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (1474)

7.9.2.1.167 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.2.1.128)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.2.1.128)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (1459)

7.9.2.1.168 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.2.1.130)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.2.1.130)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (1369)

7.9.2.1.169 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.2.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.2.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.2.1.124)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.2.1.170 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.2.1.14)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
m	array3dflt_type (7.9.2.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
disp_perp	array3dflt_type (7.9.2.1.6)	Perpendicular displacement of the mode [m]; Time-dependent; Array 3D (npsi,nn,nm)
disp_par	array3dflt_type (7.9.2.1.6)	Parallel displacement of the mode [m]; Time-dependent; Array 3D (npsi,nn,nm)
tau_alfven	vecflt_type (7.9.2.1.14)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_resistive	vecflt_type (7.9.2.1.14)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.2.1.78)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.2.1.172)	Pertubed vector potential
b_pert	mhd_vector (7.9.2.1.172)	Perturbed magnetic field [T]
v_pert	mhd_vector (7.9.2.1.172)	Perturbed velocity [m/s]
rho_masspert	array3dflt_type (7.9.2.1.6)	Perturbed mass density [kg/m^3]; Time-dependent; Array 3D (npsi,nn,nm)
temp_pert	array3dflt_type (7.9.2.1.6)	Perturbed temperature [eV]; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd:plasma (1373)

7.9.2.1.171 mhd_vaccum

External modes

member	type	description
m	array3dflt_type (7.9.2.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
coord_sys	coord_sys (7.9.2.1.78)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.2.1.172)	Pertubed vector potential
b_pert	mhd_vector (7.9.2.1.172)	Perturbed magnetic field [T]

Type of: mhd:vaccum (1373)

7.9.2.1.172 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	array3dflt_type (7.9.2.1.6)	First coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord2	array3dflt_type (7.9.2.1.6)	Second coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord3	array3dflt_type (7.9.2.1.6)	Third coordinate; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd_plasma:a_pert (1504) I mhd_plasma:b_pert (1504) I mhd_plasma:v_pert (1504) I mhd_vaccum:a_pert (1505) I mhd_vaccum:b_pert (1505)

7.9.2.1.173 midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.2.1.182)	Position at outer mid-plane
inner	orbit_pos (7.9.2.1.182)	Position at inner mid-plane

Type of: special_pos:midplane (1610)

7.9.2.1.174 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	vecint_type (7.9.2.1.15)	Number of modules per antenna in the poloidal direction. Vector of integers (nantenna_lh).
nma_phi	vecint_type (7.9.2.1.15)	Number of modules per antenna in the toroidal direction. Vector of integers (nantenna_lh).
ima_theta	matint_type (7.9.2.1.13)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Matrix of integers (nantenna_lh, max_nmodules).
ima_phi	matint_type (7.9.2.1.13)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Matrix of integers (nantenna_lh, max_nmodules).
sm_theta	vecflt_type (7.9.2.1.14)	Spacing between poloidally neighboring modules [m], Vector (nantenna_lh)
amplitude	exp2D (7.9.2.1.131)	Amplitude of the TE10 mode injected in the module [W], Matrix (nantenna_lh,max_nmodules). Time-dependent
phase	exp2D (7.9.2.1.131)	Phase of the TE10 mode injected in the module [rd], Matrix (nantenna_lh, max_nmodules). Time-dependent
waveguides	waveguides (7.9.2.1.314)	Waveguides description

Type of: antennalh_setup:modules (1395)

7.9.2.1.175 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.2.1.12)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.2.1.12)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.2.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.2.1.178)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ne_transp (1361)

7.9.2.1.176 neutrallist

Definition of neutral species

member	type	description
ncomp	vecint_type (7.9.2.1.15)	For each neutral species, number of distinct atoms that enter the composition of this species (1 if the neutral is an atom, more for a molecule : 2 for CH4). Vector of integers (nneut)
tatm	matint_type (7.9.2.1.13)	For each neutral species, and each of its atomic component, index of the atom (referring to the atomlist). Matrix of integers (nneut,max_ncomp)
multatm	matint_type (7.9.2.1.13)	For each neutral species, and each of its atomic component, number of such atoms. Matrix of integers (nneut,max_ncomp)

Type of: composition_neutrals:neutrallist (1411)

7.9.2.1.177 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.2.1.6)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.2.1.6)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.2.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.2.1.179)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ni_transp (1361)

7.9.2.1.178 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.2.1.14)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.2.1.14)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.2.1.14)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.2.1.14)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (1509) I transcoefel:off_diagonal (1632)

7.9.2.1.179 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.2.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.2.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

member	type	description
d_te	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.2.1.12)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (1511) I transcoefion:off_diagonal (1634) I transcoefvtor:off_diagonal (1635)

7.9.2.1.180 orb_glob_dat

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.2.1.15)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.2.1.14)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.2.1.14)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.2.1.14)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	special_pos (7.9.2.1.276)	Special positions along an orbit (like turning points).

Type of: orbit:orb_glob_dat (1377)

7.9.2.1.181 orb_trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.2.1.12)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.2.1.15)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.2.1.12)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.2.1.12)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.2.1.12)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.2.1.12)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.2.1.12)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.2.1.12)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:orb_trace (1377)

7.9.2.1.182 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.2.1.14)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.2.1.14)	Altitude [m]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.2.1.14)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.2.1.14)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: midplane:inner (1507) I midplane:outer (1507) I turning_pts:lower (1646) I turning_pts:upper (1646)

7.9.2.1.183 orbitt_id

Parameters identifying an orbit

member	type	description
amn	float (7.9.2.1.2)	Atomic mass of the ion; Scalar
zion	float (7.9.2.1.2)	Atomic charge of the ion; Scalar
energy	vecflt_type (7.9.2.1.14)	Energy of the ion [keV]; Time-dependent; Vector (norbits).

member	type	description
magn_mom	vecflt_type (7.9.2.1.14)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.2.1.14)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.2.1.15)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:orbitt_id (1377)

7.9.2.1.184 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.2.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.2.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.2.1.4)	Code parameters schema.

Type of

7.9.2.1.185 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.2.1.12)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.2.1.12)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (1428)

7.9.2.1.186 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.2.1.16)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.2.1.16)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.2.1.15)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.2.1.7)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (1378)

7.9.2.1.187 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.2.1.95)	Description of the coils
coilcurrent	exp1D (7.9.2.1.130)	Circuit feed current in the coil , defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.2.1.130)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)

Type of: pfsystems:pfcoils (1378)

7.9.2.1.188 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.2.1.16)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.2.1.12)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.2.1.12)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.2.1.189)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (1429)

7.9.2.1.189 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.2.1.13)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.2.1.13)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.2.1.234)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.2.1.6)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (1522)

7.9.2.1.190 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.2.1.15)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.2.1.15)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.2.1.233)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.2.1.12)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (1525)

7.9.2.1.191 pfpassive

Passive axisymmetric conductor description

member	type	description
area	vecflt_type (7.9.2.1.14)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.2.1.14)	Passive element resistance [Ohm]; Vector (nelements)
pfpageometry	pfpageometry (7.9.2.1.190)	Geometry of the passive elements

Type of: pfsystems:pfpassive (1378)

7.9.2.1.192 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.2.1.96)	Description of the power supplies
voltage	exp1D (7.9.2.1.130)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)

member	type	description
current	exp1D (7.9.2.1.130)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (1378)

7.9.2.1.193 phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.2.1.12)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.2.1.14)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: rf_beam:phaseellipse (1563)

7.9.2.1.194 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	vecint_type (7.9.2.1.15)	Number of points in the distance grid. Vector of integers (nantenna_lh).
distance	matflt_type (7.9.2.1.12)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Matrix (nantenna_lh,max_npoints). Time-dependent.
density	matflt_type (7.9.2.1.12)	Electron density in front of the antenna [m^-3]. Matrix (nantenna_lh,max_npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (1393)

7.9.2.1.195 pol_decomp

Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.

member	type	description
mpol	vecint_type (7.9.2.1.15)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time dependent; Array 3D (ntor, npsi, nmpol)
b_norm	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.2.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.2.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array4dflt_type (7.9.2.1.8)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.2.1.6)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 3D (ntor, npsi, nmpol)

member	type	description
b_para_ph	array3dflt_type (7.9.2.1.6)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (1472)

7.9.2.1.196 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p	matflt_type (7.9.2.1.12)	Electric field polarization vector in the p rotating coordinates, Matrix of double precision real (nbeams, max_npoints). Time-dependent
epol_m	matflt_type (7.9.2.1.12)	Electric field polarization vector in the m rotating coordinates, Matrix of double precision real (nbeams, max_npoints). Time-dependent
epol_par	matflt_type (7.9.2.1.12)	Electric field polarization vector in the magnetic field direction, Matrix of double precision real (nbeams, max_npoints). Time-dependent

Type of: beamtracing:polarization (1399)

7.9.2.1.197 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	matflt_type (7.9.2.1.12)	Normalized power flow in the direction perpendicular to the magnetic field; Matrix of double precision real (nbeams, max_npoints). Time-dependent
phi_par	matflt_type (7.9.2.1.12)	Normalized power flow in the direction parallel to the magnetic field; Matrix of double precision real (nbeams, max_npoints). Time-dependent
power_e	matflt_type (7.9.2.1.12)	Power absorbed along the beam by electrons [W]; Matrix of double precision real (nbeams, max_npoints). Time-dependent
power_i	array3dflt_type (7.9.2.1.6)	Power absorbed along the beam by an ion species [W]; Array (3D) of double precision real (nbeams, max_npoints, nion). Time-dependent

Type of: beamtracing:powerflow (1399)

7.9.2.1.198 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.2.1.85)	Electron pressure [Pa]; Time-dependent;
pi	coreprofion (7.9.2.1.86)	Ion pressure [Pa]; Time-dependent;
pr_th	coreprofile (7.9.2.1.85)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.2.1.85)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.2.1.85)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.2.1.85)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.2.1.85)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
joh	coreprofile (7.9.2.1.85)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.2.1.85)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.2.1.85)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	coreprofile (7.9.2.1.85)	ohmic heating [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.2.1.85)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.2.1.85)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.2.1.85)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.2.1.85)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.2.1.86)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.2.1.86)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.2.1.86)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.2.1.85)	Effective charge profile; Time-dependent;

member	type	description
bpol	coreprofile (7.9.2.1.85)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dpsidt	coreprofile (7.9.2.1.85)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
dpsidt_phi	coreprofile (7.9.2.1.85)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
dvprimedt	coreprofile (7.9.2.1.85)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (1359)

7.9.2.1.199 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.2.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.2.1.14)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.2.1.14)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.2.1.14)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.2.1.14)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.2.1.14)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.2.1.14)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.2.1.14)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.2.1.14)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.2.1.14)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.2.1.14)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.2.1.14)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.2.1.14)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.2.1.14)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.2.1.14)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.2.1.14)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.2.1.14)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.2.1.14)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.2.1.14)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.2.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.2.1.14)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.2.1.14)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.2.1.14)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.2.1.14)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.2.1.14)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.2.1.14)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.2.1.14)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.2.1.14)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.2.1.14)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.2.1.14)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.2.1.14)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.2.1.14)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.2.1.14)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.2.1.14)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.2.1.14)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.2.1.14)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.2.1.14)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.2.1.14)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)

member	type	description
mach_a	vecflt_type (7.9.2.1.14)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.2.1.14)	Definition to be provided; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.2.1.14)	Definition to be provided; Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.2.1.14)	Definition to be provided; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (1367)

7.9.2.1.200 profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	string (7.9.2.1.4)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	grid (7.9.2.1.142)	definition of the 2D grid
r	matflt_type (7.9.2.1.12)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.2.1.12)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.2.1.12)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.2.1.12)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.2.1.12)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.2.1.12)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.2.1.12)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.2.1.12)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.2.1.12)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.2.1.12)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.2.1.12)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.2.1.12)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.2.1.12)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.2.1.12)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (1367)

7.9.2.1.201 profiles_neutrals

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
n0	corefieldneutral (7.9.2.1.81)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.2.1.82)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.2.1.84)	Neutral velocity
prad0	matflt_type (7.9.2.1.12)	Power radiated by neutrals [W.m^-3]. Matrix (nrho,nneut). Time-dependent.

Type of: coreneutrals:profiles (1358)

7.9.2.1.202 properties

Space properties

member	type	description
alias	vecint_type (7.9.2.1.15)	Describes the links among grid nodes, primarily in case of periodic grids. If nodes i and j are two instances of the same node, located at the boundaries of a periodic domain, it is intended that ALIAS(I) = J and ALIAS(J) = I. Vector of integers (nnode).
type	vecint_type (7.9.2.1.15)	General purpose signal allowing the user grouping the space nodes according to his/her needs. Vector of integers (nnode).
is_x	vecint_type (7.9.2.1.15)	Location of X points. Vector of integers (nnode).

member	type	description
node_connect	string (7.9.2.1.4)	Lconnection type between two nodes. If its value is STRAIGHT, then two nodes are connected with a straight line (where "straight" is to be intended in the coordinates specified for that space). If the value is BEZIER, then two nodes are connected with BEZIER curves. String
bezier	bezier (7.9.2.1.66)	Components of the Bezier vectors associated to a node. I WONDER IF THIS IS GENERAL ENOUGH ... WHAT DO WE DO IF A DIFFERENT TYPE OF FINITE ELEMENT IS USED ?

Type of: grid_space:properties (1487)

7.9.2.1.203 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.2.1.14)	Signal value [Wb]; Time-dependent; Vector (nrho)
derivative	vecflt_type (7.9.2.1.14)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.2.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.2.1.67)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.2.1.160)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.2.1.85)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.2.1.73)	Code parameters

Type of: coreprof:psi (1359)

7.9.2.1.204 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.2.1.4)	Storage method for this data
putaccess	string (7.9.2.1.4)	Instructions to access the data using this method
putlocation	string (7.9.2.1.4)	Name of this data under this method
rights	string (7.9.2.1.4)	Access rights to this data

Type of: datainfo:putinfo (1426)

7.9.2.1.205 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.2.1.14)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.2.1.231)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.2.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.2.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.2.1.14)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.2.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.2.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.2.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (1459)

7.9.2.1.206 recycling_neutrals

Recycling coefficients

member	type	description
particles	matflt_type (7.9.2.1.12)	Particle recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.
energy	matflt_type (7.9.2.1.12)	Energy recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:recycling (1408)

7.9.2.1.207 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.2.1.2)	Data value; Real
source	string (7.9.2.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.2.1.2)	Time (exact time slice used from the time array of the source signal); Real

Type of: summary:a_minor (1383) I summary:area (1383) I summary:beta_normal (1383) I summary:beta_pol (1383) I summary:beta_tor (1383) I summary:bvac_r (1383) I summary:elongation (1383) I summary:geom_axis_r (1383) I summary:impur1_a (1383) I summary:impur1_z (1383) I summary:ip (1383) I summary:li (1383) I summary:main_ion1_a (1383) I summary:main_ion1_z (1383) I summary:main_ion2_a (1383) I summary:main_ion2_z (1383) I summary:nev (1383) I summary:tev (1383) I summary:tiv (1383) I summary:tria_lower (1383) I summary:tria_upper (1383) I summary:volume (1383) I summary:zeffv (1383)

7.9.2.1.208 ref_nt

set of non-timed references

member	type	description
zerod_real	ref_nt_0dr (7.9.2.1.211)	0d reference of real type
zerod_int	ref_nt_0di (7.9.2.1.209)	0d reference of integer type
zerod_string	ref_nt_0ds (7.9.2.1.213)	0d reference of string type
oned_real	ref_nt_1dr (7.9.2.1.217)	1d reference of real type
oned_int	ref_nt_1di (7.9.2.1.215)	1d reference of integer type

Type of: reference:non_timed (1380)

7.9.2.1.209 ref_nt_0di

set of non-timed references of integer type

member	type	description
ref1	ref_nt_0di_ref (7.9.2.1.210)	Reference signal #1
ref2	ref_nt_0di_ref (7.9.2.1.210)	Reference signal #2
ref3	ref_nt_0di_ref (7.9.2.1.210)	Reference signal #3
ref4	ref_nt_0di_ref (7.9.2.1.210)	Reference signal #4

Type of: ref_nt:zerod_int (1542)

7.9.2.1.210 ref_nt_0di_ref

a non-timed reference of integer type

member	type	description
value	integer (7.9.2.1.3)	Value of the reference. Integer scalar.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_nt_0di:ref1 (1543) I ref_nt_0di:ref2 (1543) I ref_nt_0di:ref3 (1543) I ref_nt_0di:ref4 (1543)

7.9.2.1.211 ref_nt_0dr

set of non-timed references of real type

member	type	description
ref1	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #1
ref2	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #2
ref3	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #3
ref4	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #4
ref5	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #5
ref6	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #6
ref7	ref_nt_0dr_ref (7.9.2.1.212)	Reference signal #7

Type of: ref_nt:zerod_real (1542)

7.9.2.1.212 ref_nt_0dr_ref

a non-timed reference of real type

member	type	description
value	float (7.9.2.1.2)	Value of the reference. Real scalar.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_nt_0dr:ref1 (1545) I ref_nt_0dr:ref2 (1545) I ref_nt_0dr:ref3 (1545) I ref_nt_0dr:ref4 (1545) I ref_nt_0dr:ref5 (1545) I ref_nt_0dr:ref6 (1545) I ref_nt_0dr:ref7 (1545)

7.9.2.1.213 ref_nt_0ds

set of non-timed references of string type

member	type	description
ref1	ref_nt_0ds_ref (7.9.2.1.214)	Reference signal #1
ref2	ref_nt_0ds_ref (7.9.2.1.214)	Reference signal #2

Type of: ref_nt:zerod_string (1542)

7.9.2.1.214 ref_nt_0ds_ref

a non-timed reference of string type

member	type	description
value	string (7.9.2.1.4)	Value of the reference. String
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_nt_0ds:ref1 (1547) I ref_nt_0ds:ref2 (1547)

7.9.2.1.215 ref_nt_1di

set of non-timed references of vecint type

member	type	description
ref1	ref_nt_1di_ref (7.9.2.1.216)	Reference signal #1
ref2	ref_nt_1di_ref (7.9.2.1.216)	Reference signal #2
ref3	ref_nt_1di_ref (7.9.2.1.216)	Reference signal #3
ref4	ref_nt_1di_ref (7.9.2.1.216)	Reference signal #4

Type of: ref_nt:oned_int (1542)

7.9.2.1.216 ref_nt_1di_ref

a non-timed reference of vecint type

member	type	description
value	vecint_type (7.9.2.1.15)	Value of the reference. Vector of integers.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_nt_1di:ref1 (1549) I ref_nt_1di:ref2 (1549) I ref_nt_1di:ref3 (1549) I ref_nt_1di:ref4 (1549)

7.9.2.1.217 ref_nt_1dr

set of non-timed references of vecflt type

member	type	description
ref1	ref_nt_1dr_ref (7.9.2.1.218)	Reference signal #1
ref2	ref_nt_1dr_ref (7.9.2.1.218)	Reference signal #2
ref3	ref_nt_1dr_ref (7.9.2.1.218)	Reference signal #3
ref4	ref_nt_1dr_ref (7.9.2.1.218)	Reference signal #4
ref5	ref_nt_1dr_ref (7.9.2.1.218)	Reference signal #5

Type of: ref_nt:oned_real (1542)

7.9.2.1.218 ref_nt_1dr_ref

a non-timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of the reference. Vector.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_nt_1dr:ref1 (1551) I ref_nt_1dr:ref2 (1551) I ref_nt_1dr:ref3 (1551) I ref_nt_1dr:ref4 (1551) I ref_nt_1dr:ref5 (1551)

7.9.2.1.219 ref_t

set of timed references

member	type	description
zerod_real	ref_t_0dr (7.9.2.1.222)	0d reference of real type
zerod_int	ref_t_0di (7.9.2.1.220)	0d reference of integer type
oned_real	ref_t_1dr (7.9.2.1.226)	1d reference of real type
oned_int	ref_t_1di (7.9.2.1.224)	1d reference of integer type

Type of: reference:timed (1380)

7.9.2.1.220 ref_t_0di

set of timed references of integer type

member	type	description
ref1	ref_t_0di_ref (7.9.2.1.221)	Reference signal #1
ref2	ref_t_0di_ref (7.9.2.1.221)	Reference signal #2
ref3	ref_t_0di_ref (7.9.2.1.221)	Reference signal #3
ref4	ref_t_0di_ref (7.9.2.1.221)	Reference signal #4

Type of: ref_t:zerod_int (1553)

7.9.2.1.221 ref_t_0di_ref

a timed reference of integer type

member	type	description
value	integer (7.9.2.1.3)	Value of the reference. Integer scalar. Time-dependent.

member	type	description
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_t_0di:ref1 (1554) I ref_t_0di:ref2 (1554) I ref_t_0di:ref3 (1554) I ref_t_0di:ref4 (1554)

7.9.2.1.222 ref_t_0dr

set of timed references of real type

member	type	description
ref1	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #1
ref2	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #2
ref3	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #3
ref4	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #4
ref5	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #5
ref6	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #6
ref7	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #7
ref8	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #8
ref9	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #9
ref10	ref_t_0dr_ref (7.9.2.1.223)	Reference signal #10

Type of: ref_t:zerod_real (1553)

7.9.2.1.223 ref_t_0dr_ref

a timed reference of real type

member	type	description
value	float (7.9.2.1.2)	Value of the reference. Real scalar. Time-dependent.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_t_0dr:ref1 (1556) I ref_t_0dr:ref10 (1556) I ref_t_0dr:ref2 (1556) I ref_t_0dr:ref3 (1556) I ref_t_0dr:ref4 (1556) I ref_t_0dr:ref5 (1556) I ref_t_0dr:ref6 (1556) I ref_t_0dr:ref7 (1556) I ref_t_0dr:ref8 (1556) I ref_t_0dr:ref9 (1556)

7.9.2.1.224 ref_t_1di

set of timed references of vecint type

member	type	description
ref1	ref_t_1di_ref (7.9.2.1.225)	Reference signal #1
ref2	ref_t_1di_ref (7.9.2.1.225)	Reference signal #2
ref3	ref_t_1di_ref (7.9.2.1.225)	Reference signal #3
ref4	ref_t_1di_ref (7.9.2.1.225)	Reference signal #4

Type of: ref_t:oned_int (1553)

7.9.2.1.225 ref_t_1di_ref

a timed reference of vecint type

member	type	description
value	vecint_type (7.9.2.1.15)	Value of the reference. Vector of integers. Time-dependent.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_t_1di:ref1 (1558) I ref_t_1di:ref2 (1558) I ref_t_1di:ref3 (1558) I ref_t_1di:ref4 (1558)

7.9.2.1.226 ref_t_1dr

set of timed references of vecflt type

member	type	description
ref1	ref_t_1dr_ref (7.9.2.1.227)	Reference signal #1
ref2	ref_t_1dr_ref (7.9.2.1.227)	Reference signal #2
ref3	ref_t_1dr_ref (7.9.2.1.227)	Reference signal #3
ref4	ref_t_1dr_ref (7.9.2.1.227)	Reference signal #4
ref5	ref_t_1dr_ref (7.9.2.1.227)	Reference signal #5

Type of: ref_t:oned_real (1553)

7.9.2.1.227 ref_t_1dr_ref

a timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of the reference. Vector. Time-dependent.
description	string (7.9.2.1.4)	Description of the reference. String.

Type of: ref_t_1dr:ref1 (1560) I ref_t_1dr:ref2 (1560) I ref_t_1dr:ref3 (1560) I ref_t_1dr:ref4 (1560) I ref_t_1dr:ref5 (1560)

7.9.2.1.228 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.2.1.14)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.2.1.14)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (1412)

7.9.2.1.229 rf_beam

Beam characteristics (RF wave description)

member	type	description
spot	spot (7.9.2.1.278)	Spot characteristics
phaseellipse	phaseellipse (7.9.2.1.193)	Phase ellipse characteristics of the spot

Type of: antenna_ec:beam (1391) I antenna_lh:beam (1393) I launchs:beam (1370)

7.9.2.1.230 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.2.1.2)	Major radius [m]
z	float (7.9.2.1.2)	Altitude [m]

Type of: eqgeometry:active_limit (1460) I eqgeometry:geom_axis (1460) I eqgeometry:left_low_st (1460) I eqgeometry:left_up_st (1460) I eqgeometry:right_low_st (1460) I eqgeometry:right_up_st (1460) I mag_axis:position (1500)

7.9.2.1.231 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.2.1.14)	Major radius [m]
z	vecflt_type (7.9.2.1.14)	Altitude [m]

Type of: eqgeometry:xpts (1460) I flush:position (1467) I isoflux:position (1493) I limiter:position (1371) I q:position (1539) I setup_bprobe:position (1597) I tssetup:position (1637) I vessel:position (1388) I xpts:position (1657)

7.9.2.1.232 rz1D_npoints

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.2.1.14)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.2.1.14)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.2.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

Type of: eqgeometry:boundary (1460)

7.9.2.1.233 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.2.1.12)	Major radius [m]
z	matflt_type (7.9.2.1.12)	Altitude [m]

Type of: coord_sys:position (1412) I geom_iron:rzcoordinate (1473) I pfpageometry:rzcoordinate (1524)

7.9.2.1.234 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.2.1.6)	Major radius [m]
z	array3dflt_type (7.9.2.1.6)	Altitude [m]

Type of: pfgeometry:rzcoordinate (1523) I straps:coord_strap (1617)

7.9.2.1.235 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.2.1.14)	Major radius [m]
z	vecflt_type (7.9.2.1.14)	Altitude [m]
phi	vecflt_type (7.9.2.1.14)	Toroidal angle [rad]

Type of: antenna_ec:position (1391) I launchs:position (1370) I setup_inject:position (1599) I setup_line:pivot_point (1600) I setup_line:second_point (1600) I setup_line:third_point (1600)

7.9.2.1.236 rzphi1Dexp

Structure for list of R,Z,phi positions (1D)

member	type	description
r	exp1D (7.9.2.1.130)	Major radius [m]
z	exp1D (7.9.2.1.130)	Altitude [m]
phi	exp1D (7.9.2.1.130)	Toroidal angle [rad]

Type of: antenna_lh:position (1393) I cxsetup:position (1425) I ecesetup:position (1457)

7.9.2.1.237 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.2.1.12)	Major radius [m]
z	matflt_type (7.9.2.1.12)	Altitude [m]
phi	matflt_type (7.9.2.1.12)	Toroidal angle [rad]

Type of: beamlets:position (1398) I setup_floops:position (1598)

7.9.2.1.238 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.2.1.6)	Major radius [m]
z	array3dflt_type (7.9.2.1.6)	Altitude [m]
phi	array3dflt_type (7.9.2.1.6)	Toroidal angle [rad]

Type of: turbcoordsys:position (1638)

7.9.2.1.239 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.2.1.14)	Position : major radius [m]
z	vecflt_type (7.9.2.1.14)	Position : altitude [m]
phi	vecflt_type (7.9.2.1.14)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.2.1.14)	Width : major radius [m]
dz	vecflt_type (7.9.2.1.14)	Width : altitude [m]
dphi	vecflt_type (7.9.2.1.14)	Width : toroidal angle [rad]

Type of: setup_mse:rzgamma (1601)

7.9.2.1.240 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.2.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.2.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.2.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.2.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (1381)

7.9.2.1.241 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.2.1.14)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.2.1.12)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.2.1.14)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.2.1.12)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.2.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.2.1.14)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.2.1.14)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.2.1.14)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.2.1.14)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (1381)

7.9.2.1.242 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.2.1.259)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.2.1.259)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.2.1.259)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.2.1.259)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.2.1.259)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.2.1.259)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.2.1.259)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.2.1.259)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.2.1.259)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.2.1.259)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.2.1.259)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (1382)

7.9.2.1.243 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.2.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.2.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.2.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.2.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.2.1.15)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.2.1.14)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.2.1.14)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.2.1.14)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.2.1.14)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (1382)

7.9.2.1.244 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.2.1.251)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in opposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.2.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.2.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.2.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.2.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.2.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.2.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.2.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.2.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.2.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.2.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.2.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.2.1.4)	chemical compostion of the divertor
coordinate	string (7.9.2.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho

member	type	description
ecrh_freq	scenario_ref (7.9.2.1.259)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.2.1.259)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.2.1.251)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.2.1.259)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.2.1.259)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.2.1.251)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.2.1.259)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.2.1.259)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.2.1.251)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.2.1.259)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.2.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.2.1.259)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.2.1.259)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.2.1.259)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.2.1.259)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.2.1.259)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.2.1.259)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (1382)

7.9.2.1.245 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.2.1.259)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.2.1.259)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.2.1.259)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.2.1.259)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.2.1.259)	electron energy confimement time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.2.1.259)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.2.1.259)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.2.1.259)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.2.1.259)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (1382)

7.9.2.1.246 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.2.1.259)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.2.1.259)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.2.1.259)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.2.1.259)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.2.1.259)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.2.1.259)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.2.1.259)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.2.1.259)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.2.1.259)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.2.1.259)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.2.1.259)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.2.1.259)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.2.1.259)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.2.1.259)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.2.1.259)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (1382)

7.9.2.1.247 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.2.1.259)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.2.1.259)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.2.1.259)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.2.1.259)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.2.1.259)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.2.1.259)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.2.1.259)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.2.1.259)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.2.1.259)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.2.1.259)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.2.1.259)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.2.1.259)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (1382)

7.9.2.1.248 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.2.1.259)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.2.1.259)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.2.1.259)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.2.1.259)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.2.1.259)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.2.1.259)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.2.1.259)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.2.1.259)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.2.1.259)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.2.1.259)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.2.1.259)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.2.1.259)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.2.1.259)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.2.1.259)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.2.1.259)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.2.1.259)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (1382)

7.9.2.1.249 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.2.1.259)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.2.1.259)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.2.1.259)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.2.1.259)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.2.1.259)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.2.1.259)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.2.1.259)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.2.1.259)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.2.1.259)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.2.1.259)	length of the separatrix [m]. Time-dependent.

member	type	description
beta_pol_th	scenario_ref (7.9.2.1.259)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.2.1.259)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.2.1.259)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.2.1.259)	flag for disruption (set to 1 for disruption, otERwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.2.1.259)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.2.1.259)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (1382)

7.9.2.1.250 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.2.1.259)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.2.1.259)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.2.1.259)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.2.1.259)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.2.1.259)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.2.1.259)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.2.1.259)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.2.1.259)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.2.1.259)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.2.1.259)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.2.1.259)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.2.1.259)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.2.1.259)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.2.1.259)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.2.1.259)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.2.1.259)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.2.1.259)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.2.1.259)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.2.1.259)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.2.1.259)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.2.1.259)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.2.1.259)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.2.1.259)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.2.1.259)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.2.1.259)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.2.1.259)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.2.1.259)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.2.1.259)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.2.1.259)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.2.1.259)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.2.1.259)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.2.1.259)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.2.1.259)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.2.1.259)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.2.1.259)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.2.1.259)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.2.1.259)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.2.1.259)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (1382)

7.9.2.1.251 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.2.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.2.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (1578) I scenario_configuration:ecrh_harm (1578) I scenario_configuration:ecrh_mode (1578) I scenario_configuration:grad_b_drift (1578) I scenario_itb:itb_type (1586)

7.9.2.1.252 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.2.1.259)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.2.1.259)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.2.1.259)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.2.1.259)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.2.1.259)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.2.1.259)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.2.1.259)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.2.1.259)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.2.1.259)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.2.1.259)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.2.1.259)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.2.1.251)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (1382)

7.9.2.1.253 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.2.1.259)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.2.1.259)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.2.1.259)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.2.1.259)	limiter/divertor ion density [m^-3]. Time-dependent.
p_peak_div	scenario_ref (7.9.2.1.259)	peak power on divertor [W]. Time-dependent.
surf_temp	scenario_ref (7.9.2.1.259)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.2.1.259)	Power flux on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.2.1.259)	radiative power in the divertor zone [W]. Time-dependent.
wall_temp	scenario_ref (7.9.2.1.259)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.2.1.259)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.2.1.259)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	vecflt_type (7.9.2.1.14)	flux pump out for each ion species [s^-1]. Time-dependent.

Type of: scenario:lim_div_wall (1382)

7.9.2.1.254 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.2.1.259)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.2.1.259)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.2.1.259)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.2.1.259)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (1382)

7.9.2.1.255 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.2.1.259)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.2.1.259)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.2.1.259)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.2.1.259)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.2.1.259)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.2.1.259)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (1382)

7.9.2.1.256 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.2.1.259)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.2.1.259)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.2.1.259)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.2.1.259)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.2.1.259)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.2.1.259)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.2.1.259)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.2.1.259)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.2.1.259)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.2.1.259)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.2.1.259)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.2.1.259)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (1382)

7.9.2.1.257 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.2.1.259)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.2.1.259)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.2.1.259)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.2.1.259)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.2.1.259)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.2.1.259)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.2.1.259)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.2.1.259)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.2.1.259)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.2.1.259)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (1382)

7.9.2.1.258 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.2.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (1382)

7.9.2.1.259 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.2.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.2.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (1576) I scenario_centre:Zmag (1576) I scenario_centre:ne0 (1576) I scenario_centre:ni0 (1576) I scenario_centre:phi0 (1576) I scenario_centre:psi0 (1576) I scenario_centre:q0 (1576) I scenario_centre:shift0 (1576) I scenario_centre:te0 (1576) I scenario_centre:ti0 (1576) I scenario_centre:vtor_0 (1576) I scenario_configuration:LH_freq (1578) I scenario_configuration:LH_npar (1578) I scenario_configuration:ecrh_freq (1578) I scenario_configuration:ecrh_loc (1578) I scenario_configuration:ecrh_pol_ang (1578) I scenario_configuration:ecrh_tor_ang (1578) I scenario_configuration:enb (1578) I scenario_configuration:icrh_freq (1578) I scenario_configuration:icrh_phase (1578) I scenario_configuration:pellet_ang (1578) I scenario_configuration:pellet_nba (1578) I scenario_configuration:pellet_v (1578) I scenario_configuration:r_nbi (1578) I scenario_confinement:tau_cur_diff (1579) I scenario_confinement:tau_e (1579) I scenario_confinement:tau_e_ee (1579) I scenario_confinement:tau_e_ei (1579) I scenario_confinement:tau_e_ii (1579) I scenario_confinement:tau_h_sc (1579) I scenario_confinement:tau_he (1579) I scenario_confinement:tau_i_rol (1579) I scenario_confinement:tau_l_sc (1579) I scenario_currents:RR (1580) I scenario_currents:i_align (1580) I scenario_currents:i_boot (1580) I scenario_currents:i_cd_tot (1580) I scenario_currents:i_eccd (1580) I scenario_currents:i_fast_ion (1580) I scenario_currents:i_fwcd (1580) I scenario_currents:i_lhcd (1580) I scenario_currents:i_nbicd (1580) I scenario_currents:i_ni_tot (1580) I scenario_currents:i_ohm (1580) I scenario_currents:i_par (1580) I scenario_currents:i_runaway (1580) I scenario_currents:v_loop (1580) I scenario_currents:v_meas (1580) I scenario_edge:drho_edge_dt (1581) I scenario_edge:ne_edge (1581) I scenario_edge:neutral_flux (1581) I scenario_edge:ni_edge (1581) I scenario_edge:phi_edge (1581) I scenario_edge:phi_plasma (1581) I scenario_edge:psi_edge (1581) I scenario_edge:q_edge (1581) I scenario_edge:rho_edge (1581) I scenario_edge:te_edge (1581) I scenario_edge:ti_edge (1581) I scenario_edge:vtor_edge (1581) I scenario_energy:dwbpol_dt (1582) I scenario_energy:dwbtorpla_dt (1582) I scenario_energy:dwdia_dt (1582) I scenario_energy:dwth_dt (1582) I scenario_energy:dwtot_dt (1582) I scenario_energy:esup_alpha (1582) I scenario_energy:esup_icrhper (1582) I scenario_energy:esup_icrhtot (1582) I scenario_energy:esup_lhcd (1582) I scenario_energy:esup_nbiperp (1582) I scenario_energy:esup_nbitot (1582) I scenario_energy:w_b_pol (1582) I scenario_energy:w_b_tor_pla (1582) I scenario_energy:w_dia (1582) I scenario_energy:w_th (1582) I scenario_energy:w_tot (1582) I scenario_global:area_ext (1583) I scenario_global:area_pol (1583) I scenario_global:beta_n_th (1583) I scenario_global:beta_normal (1583) I scenario_global:beta_pol (1583) I scenario_global:beta_pol_th (1583) I scenario_global:beta_tor (1583) I scenario_global:beta_tor_th (1583) I scenario_global:dip_dt (1583) I scenario_global:disruption (1583) I scenario_global:ip (1583) I scenario_global:len_sepa (1583) I scenario_global:li (1583) I scenario_global:mode_h (1583) I scenario_global:s_alpha (1583) I scenario_global:volume (1583) I scenario_heat_power:p_l2h_sc (1584) I scenario_heat_power:p_l2h_thr (1584) I scenario_heat_power:p_nbi_icrh (1584) I scenario_heat_power:p_w (1584) I scenario_heat_power:p_wth (1584) I scenario_heat_power:padd_tot (1584) I scenario_heat_power:pbrem (1584) I scenario_heat_power:pcyclo (1584) I scenario_heat_power:pdd_fus (1584) I scenario_heat_power:pecrh (1584) I scenario_heat_power:pecrh_th (1584) I scenario_heat_power:pei (1584) I scenario_heat_power:pel_fus (1584) I scenario_heat_power:pel_icrh (1584) I scenario_heat_power:pel_nbi (1584) I scenario_heat_power:pel_tot (1584) I scenario_heat_power:pfus_dt (1584) I scenario_heat_power:pfus_nbi (1584) I scenario_heat_power:pfus_th (1584) I scenario_heat_power:picrh (1584) I scenario_heat_power:picrh_th (1584) I scenario_heat_power:pion_fus (1584) I scenario_heat_power:pion_icrh (1584) I scenario_heat_power:pion_nbi (1584) I scenario_heat_power:pion_tot (1584) I scenario_heat_power:pioniz (1584) I scenario_heat_power:plh (1584) I scenario_heat_power:plh_th (1584) I scenario_heat_power:ploss (1584) I scenario_heat_power:ploss_fus (1584) I scenario_heat_power:ploss_icrh (1584) I scenario_heat_power:ploss_nbi (1584) I scenario_heat_power:pnbi (1584) I scenario_heat_power:pnbi_co_cur (1584) I scenario_heat_power:pnbi_counter (1584) I scenario_heat_power:pnbi_th (1584) I scenario_heat_power:pohmic (1584) I scenario_heat_power:prad (1584) I scenario_itb:h_itb (1586) I scenario_itb:ne_itb (1586) I scenario_itb:ni_itb (1586) I scenario_itb:phi_itb (1586) I scenario_itb:psi_itb (1586) I scenario_itb:q_min (1586) I scenario_itb:rho_itb (1586) I scenario_itb:te_itb (1586) I scenario_itb:ti_itb (1586) I scenario_itb:vtor_itb (1586) I scenario_itb:width_itb (1586) I scenario_lim_div_wall:detach_st (1587) I scenario_lim_div_wall:ne_lim_div (1587) I scenario_lim_div_wall:ni_lim_div (1587) I scenario_lim_div_wall:p_lim_div (1587) I scenario_lim_div_wall:p_peak_div (1587) I scenario_lim_div_wall:p_rad_div (1587) I scenario_lim_div_wall:surf_temp (1587) I scenario_lim_div_wall:te_lim_div (1587) I scenario_lim_div_wall:ti_lim_div (1587) I scenario_lim_div_wall:wall_state (1587) I scenario_lim_div_wall:wall_temp (1587) I scenario_line_ave:dne_line_dt (1588) I scenario_line_ave:ne_line (1588) I scenario_line_ave:ne_zeff_line (1588) I scenario_line_ave:zeff_line (1588) I scenario_neutron:ndd_nbi_nbi (1589) I scenario_neutron:ndd_nbi_th (1589) I scenario_neutron:ndd_th (1589) I scenario_neutron:ndd_tot (1589) I scenario_neutron:ndt_th (1589) I scenario_neutron:ndt_tot (1589) I scenario_ninety_five:elong_95 (1590) I scenario_ninety_five:ne_95 (1590) I scenario_ninety_five:ni_95 (1590) I scenario_ninety_five:phi_95 (1590) I scenario_ninety_five:q_

(1590) I scenario_ninety_five:rho_95 (1590) I scenario_ninety_five:te_95 (1590) I scenario_ninety_five:ti_95 (1590) I scenario_ninety_five:tria_95 (1590) I scenario_ninety_five:tria_lo_95 (1590) I scenario_ninety_five:tria_up_95 (1590) I scenario_ninety_five:vtor_95 (1590) I scenario_pedestal:ne_ped (1591) I scenario_pedestal:ni_ped (1591) I scenario_pedestal:phi_ped (1591) I scenario_pedestal:pressure_ped (1591) I scenario_pedestal:psi_ped (1591) I scenario_pedestal:q_ped (1591) I scenario_pedestal:rho_ped (1591) I scenario_pedestal:te_ped (1591) I scenario_pedestal:ti_ped (1591) I scenario_pedestal:vtor_ped (1591) I scenario_references:bvac_r (1594) I scenario_references:enhancement (1594) I scenario_references:ip (1594) I scenario_references:isotopic (1594) I scenario_references:nbar (1594) I scenario_references:nbi_td_ratio (1594) I scenario_references:pecrh (1594) I scenario_references:picrh (1594) I scenario_references:plh (1594) I scenario_references:pnbi (1594) I scenario_references:pol_flux (1594) I scenario_references:xecrh (1594) I scenario_references:zeffl (1594) I scenario_sol:l_ne_sol (1595) I scenario_sol:l_ni_sol (1595) I scenario_sol:l_qe_sol (1595) I scenario_sol:l_qi_sol (1595) I scenario_sol:l_te_sol (1595) I scenario_sol:l_ti_sol (1595) I scenario_sol:p_rad_sol (1595) I scenario_vol_ave:dne_ave_dt (1596) I scenario_vol_ave:meff_ave (1596) I scenario_vol_ave:ne_ave (1596) I scenario_vol_ave:ni_ave (1596) I scenario_vol_ave:omega_ave (1596) I scenario_vol_ave:pellet_flux (1596) I scenario_vol_ave:te_ave (1596) I scenario_vol_ave:ti_ave (1596) I scenario_vol_ave:ti_o_te_ave (1596) I scenario_vol_ave:zeff_ave (1596)

7.9.2.1.260 scenario_references

References

member	type	description
plh	scenario_ref (7.9.2.1.259)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.2.1.259)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.2.1.259)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.2.1.259)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.2.1.259)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.2.1.259)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.2.1.259)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.2.1.259)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.2.1.259)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.2.1.259)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.2.1.259)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.2.1.259)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.2.1.259)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.

Type of: scenario:references (1382)

7.9.2.1.261 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.2.1.259)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.2.1.259)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.2.1.259)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.2.1.259)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.2.1.259)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.2.1.259)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.2.1.259)	radiative power of the SOL [W]. Time-dependent.
gaz_puff	vecflt_type (7.9.2.1.14)	gaz puff flux for each ion species [s^-1]. Time-dependent.

Type of: scenario:sol (1382)

7.9.2.1.262 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.2.1.259)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.2.1.259)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.2.1.259)	volume averaged electron density [m^-3]. Time-dependent.

member	type	description
dne_ave_dt	scenario_ref (7.9.2.1.259)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.2.1.259)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.2.1.259)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.2.1.259)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.2.1.259)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.2.1.259)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.2.1.14)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.2.1.259)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (1382)

7.9.2.1.263 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.2.1.16)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.2.1.231)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.2.1.14)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.2.1.14)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.2.1.14)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.2.1.14)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.2.1.15)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (1406)

7.9.2.1.264 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.2.1.16)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.2.1.16)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.2.1.237)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.2.1.15)	Number of points describing each loop in the ”position” matrices. Vector (nloops)

Type of: flux_loops:setup_floops (1468)

7.9.2.1.265 setup_inject

Detailed information on an injection unit.

member	type	description
position	rzphi1D (7.9.2.1.235)	Position of centre of injection unit surface. Vectors(nunits).
tang_rad	vecflt_type (7.9.2.1.14)	Tagency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]; Vector(nunits)
angle	vecflt_type (7.9.2.1.14)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]; Vector(nunits)
direction	vecint_type (7.9.2.1.15)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise; Vector(nunits)
div_vert	vecflt_type (7.9.2.1.14)	Beam divergence for a unit in the vertical direction[rad]; Vector(nunits)
div_horiz	vecflt_type (7.9.2.1.14)	Beam divergence for a unit in the horizontal direction[rad]; Vector(nunits)
focal_len_hz	vecflt_type (7.9.2.1.14)	Horizontal focal length along the beam line [m], Vector(nunits)
focal_len_vc	vecflt_type (7.9.2.1.14)	Vertical focal length along the beam line [m], Vector(nunits)
beamlets	beamlets (7.9.2.1.64)	Detailed information on beamlets.

Type of: nbi:setup_inject (1375)

7.9.2.1.266 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.2.1.235)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.2.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.2.1.14)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.2.1.14)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.2.1.235)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.2.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.2.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.2.1.235)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.2.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: lineintegraldiag:setup_line (1498)

7.9.2.1.267 setup_mse

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.2.1.239)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.2.1.12)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: msediag:setup_mse (1374)

7.9.2.1.268 source_4d

Source of particles in phase space.

member	type	description
gyrosrc_type	vecint_type (7.9.2.1.15)	Defines how to interpret the source: 1 = the source is calulated at the particle birth point; 2 = the source is calulated at the gyro centre of the birth point. Vector(nsrc_spec)
grid_type	vecint_type (7.9.2.1.15)	Defines the four grid variables and the grid structure (rectangular, unstructured...): 1 = { R(c), z(c), ksi(c), E(d), rectangular} ; 2 = { R(c), z(c), ksi(c), E(c), rectangular} . Here the variable ksi=v_parallel/v. Here, (c) stands for source countinuously distributed over grid (e.g. to treat the continuous energy spectra of alpha sources), (d) stands for discretely distributed source; localised to the grid (e.g. to treat the discrete energies injected with NBI). The dimensions of the variables are: R [m], z [m], E [J], ksi=v_parallel/v [1]. For rectangular grids the grid is defined in rect_grid. Vector(nsrc_spec)
rect_grid	distsource_rect_grid (7.9.2.1.121)	Details of rectangular grids.
source	array5dflt_type (7.9.2.1.9)	Phase space source of particles; the units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if continuous; Time-dependent; Array5d (nsrc_spec, ndim1, ndim2, ndim3, ndim4)

Type of: distsource:source_4d (1364)

7.9.2.1.269 source_el

Subtree containing source terms for electrons

member	type	description
exp	vecflt_type (7.9.2.1.14)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.2.1.14)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource:qe (1360) I coresource:se (1360)

7.9.2.1.270 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	array3dflt_type (7.9.2.1.6)	Explicit source term [same unit as root quantity]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
imp	array3dflt_type (7.9.2.1.6)	Implicit source term [s^-1.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)

Type of: coresource:qz (1360) I coresource:sz (1360)

7.9.2.1.271 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.2.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.2.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource:qi (1360) I coresource:si (1360) I coresource:ui (1360)

7.9.2.1.272 source_tp

Source given as a set of test particles. Note that the test particles are given at the source location and not at the gyrocentre. Note that max_n_particles should be the maximum both over species and time (since the number of test particles can change with time)

member	type	description
n_particles	vecint_type (7.9.2.1.15)	Number of test particle for each species; Time-dependent; Vector (nsrc_spec)
var_type	integer (7.9.2.1.3)	Identification of variables: 1 = { R, z, phi, v, ksi, R*v_phi } ; 2 = { R, z, phi, Energy, ksi, R*v_phi } ; 3 = { Energy, magnetic momentum, toroidal angular momentum}. Dimensions of variables: R [m], z [m], phi [rad], v [m/s], v_phi[m/s], ksi=v_parallel/v [1].
var1	matflt_type (7.9.2.1.12)	Phase space variable number one characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var2	matflt_type (7.9.2.1.12)	Phase space variable number two characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var3	matflt_type (7.9.2.1.12)	Phase space variable number three characterising a test particle; Time-dependent; Matrix (nsrc_spec, max_n_particles)
var4	matflt_type (7.9.2.1.12)	Phase space variable number four characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var5	matflt_type (7.9.2.1.12)	Phase space variable number five characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
var6	matflt_type (7.9.2.1.12)	Phase space variable number six characterising a test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)
weight	matflt_type (7.9.2.1.12)	Weight of test particle; Time-dependent; Matrix(nsrc_spec, max_n_particles)

Type of: distsource:source_tp (1364)

7.9.2.1.273 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.2.1.14)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.2.1.14)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)

member	type	description
source	string (7.9.2.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (1413)

7.9.2.1.274 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	array3dflt_type (7.9.2.1.6)	Value of the source term [m^-3.s^-1]; Time-dependent; Array3D (nrho,nimp,max_nzimp)
integral	array3dflt_type (7.9.2.1.6)	Integral from 0 to rho of the source term. Time-dependent; Array3D(nsource,nimp,max_nzimp)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:source_term (1357)

7.9.2.1.275 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.2.1.12)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.2.1.12)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.2.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (1414)

7.9.2.1.276 special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	midplane (7.9.2.1.173)	Intersections with the midplane
turning_pts	turning_pts (7.9.2.1.312)	Location of turning points

Type of: orb_glob_dat:special_pos (1514)

7.9.2.1.277 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.2.1.163)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.2.1.162)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (1370)

7.9.2.1.278 spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.2.1.12)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.2.1.14)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: rf_beam:spot (1563)

7.9.2.1.279 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	matflt_type (7.9.2.1.12)	Effective coefficient of physical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.
chemical	matflt_type (7.9.2.1.12)	Effective coefficient of chemical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:sputtering (1408)

7.9.2.1.280 src_snk_fav

member	type	description
particles	matflt_type (7.9.2.1.12)	Source/sink particles [s^1 m^-3]; Time-dependedent; Matrix(nsrc_spec, max_npsi)
power	matflt_type (7.9.2.1.12)	Power density associated with the source/sink of particles [W/m^3]; Time-dependent; Matrix(nsrc_spec, max_npsi)
torque	matflt_type (7.9.2.1.12)	Torque density due to the source/sink of particles [Nm/m^3]; Time dependent; Matrix (nsrc_spec, max_npsi)

7.9.2.1.281 src_snk_int

member	type	description
particles	matflt_type (7.9.2.1.12)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector(nsrc_spec, max_npsi)
power	matflt_type (7.9.2.1.12)	Power associated with the source/sink of particles [MW/m^3]; Time-dependent; Vector(nsrc_spec, max_npsi)
torque	matflt_type (7.9.2.1.12)	Torque due to the source/sink of particles [Nm/m^3]; Time dependent; Vector (nsrc_spec, max_npsi)

7.9.2.1.282 src_snk_tot

member	type	description
particles	vecflt_type (7.9.2.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector(nsrc_spec)
power	vecflt_type (7.9.2.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector(nsrc_spec)
torque	vecflt_type (7.9.2.1.14)	Torque due to the source/sink of particles [Nm]; Time dependent; Vector (nsrc_spec)

7.9.2.1.283 straps

Properties of each IC antenna strap

member	type	description
nstraps	vecint_type (7.9.2.1.15)	Number of straps in each antenna; Vector (nantenna_ic)
phase	exp2D (7.9.2.1.131)	Phase of strap current [rad]; Time-dependent; Matrix (nantenna_ic, max_nstraps)
phi_centre	matflt_type (7.9.2.1.12)	Toroidal angle at the centre of the strap [rad]; Matrix (nantenna_ic, max_nstraps)
width	matflt_type (7.9.2.1.12)	Width of strap in the toroidal direction [m]; Matrix (nantenna_ic, max_nstraps)
dist2wall	matflt_type (7.9.2.1.12)	Distance to conducting wall or other conducter behind the antenna straps [m]; Matrix (nantenna_ic, max_nstraps)
ncoord_strap	matint_type (7.9.2.1.13)	Number of point in the polygon describing the antenna in the poloidal plane; Matrix (nantenna_ic, max_nstraps)
coord_strap	rz3D (7.9.2.1.234)	Coordinates (R,z) of polygon (of length ncoord_strap) describing the antenna in the poloidal plane; rz3d array (nantenna_ic, max_nstraps, max_ncoord_strap)

Type of: antennaic_setup:straps (1394)

7.9.2.1.284 table_0d

member	type	description
table	matflt_type (7.9.2.1.12)	interpolation data, Array(nz,nproc0d)

Type of: tables:table_0d (1629)

7.9.2.1.285 table_1d

member	type	description
table_prop	table_info1 (7.9.2.1.290)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord1)
table	array3dflt_type (7.9.2.1.6)	interpolation data, Array(ncoord1, nz, nproc1d)

Type of: tables:table_1d (1629)

7.9.2.1.286 table_2d

member	type	description
table_prop	table_info2 (7.9.2.1.291)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord2)
table	array4dflt_type (7.9.2.1.8)	Interpolation data , Array(ncoord1,ncoord2, nz, nproc2d)

Type of: tables:table_2d (1629)

7.9.2.1.287 table_3d

member	type	description
table_prop	table_info3 (7.9.2.1.292)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord3)
table	array5dflt_type (7.9.2.1.9)	interpolation data , Array(ncoord1,ncoord2,ncoord3, nz, nproc3d)

Type of: tables:table_3d (1629)

7.9.2.1.288 table_4d

member	type	description
table_prop	table_info4 (7.9.2.1.293)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord3)
coord4	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord4)
table	array6dflt_type (7.9.2.1.10)	interpolation data , Array(ncoord1,ncoord2,ncoord3,ncoord4, nz, nproc4d)

Type of: tables:table_4d (1629)

7.9.2.1.289 table_5d

member	type	description
table_prop	table_info5 (7.9.2.1.294)	Information on the properties of the table and the coordinates.
coord1	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord1)
coord2	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord2)
coord3	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord3)
coord4	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord4)
coord5	vecflt_type (7.9.2.1.14)	value of coordinate; Vector(ncoord5)
table	array6dflt_type (7.9.2.1.10)	interpolation data , Array(ncoord1,ncoord2,ncoord3,ncoord4,ncoord5, nz, nproc5d). DECLARED AS 6D ARRAY FOR THE MOMENT UNTIL WE UPDATE UAL TO A 7D.

Type of: tables:table_5d (1629)

7.9.2.1.290 table_info1

Information on the amns table

member	type	description
coord_extrap	matint_type (7.9.2.1.13)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc1d, 2)
interp_type	integer (7.9.2.1.3)	1: linear; ... ; Vector(nproc1d)
coord_label	string (7.9.2.1.4)	description of the coordinate, string.
coord_unit	string (7.9.2.1.4)	units of coordinate; string
coord_trans	integer (7.9.2.1.3)	0 : none; 1 : log10; 2 : ln; Integer
unif_spacing	integer (7.9.2.1.3)	for optimization purposes

Type of: table_1d:table_prop (1619)

7.9.2.1.291 table_info2

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.2.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc2d, 2, 2)
interp_type	vecint_type (7.9.2.1.15)	1: linear; ... Vector(nproc2d)
coord_label	vecstring_type (7.9.2.1.16)	description of each coordinate, Vector(2).
coord_unit	vecstring_type (7.9.2.1.16)	units of coordinate; Vector(2)
coord_trans	vecint_type (7.9.2.1.15)	0 : none; 1 : log10; 2 : ln; Vector(2)
unif_spacing	integer (7.9.2.1.3)	for optimization purposes

Type of: table_2d:table_prop (1620)

7.9.2.1.292 table_info3

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.2.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc3d, 2, 3)
interp_type	vecint_type (7.9.2.1.15)	1: linear; ... ; Vector(nproc3d)
coord_label	vecstring_type (7.9.2.1.16)	description of each coordinate, Vector(3).
coord_unit	vecstring_type (7.9.2.1.16)	units of coordinate; Vector(3)
coord_trans	vecint_type (7.9.2.1.15)	0 : none; 1 : log10; 2 : ln; Vector(3)
unif_spacing	integer (7.9.2.1.3)	for optimization purposes

Type of: table_3d:table_prop (1621)

7.9.2.1.293 table_info4

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.2.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc4d, 2, 5)
interp_type	vecint_type (7.9.2.1.15)	1: linear; ... ; Vector(nproc4d)
coord_label	vecstring_type (7.9.2.1.16)	description of each coordinate, Vector(4).
coord_unit	vecstring_type (7.9.2.1.16)	units of coordinate; Vector(4)
coord_trans	vecint_type (7.9.2.1.15)	0 : none; 1 : log10; 2 : ln; Vector(4)
unif_spacing	integer (7.9.2.1.3)	for optimization purposes

Type of: table_4d:table_prop (1622)

7.9.2.1.294 table_info5

Information on the amns table

member	type	description
coord_extrap	array3dint_type (7.9.2.1.7)	0 : none, report error; 1 : boundary value; 2: simple; Array(nproc5d, 2, 5)
interp_type	vecint_type (7.9.2.1.15)	1: linear; ... ; Vector(nproc5d)

member	type	description
coord_label	vecstring_type (7.9.2.1.16)	description of each coordinate, Vector(5).
coord_unit	vecstring_type (7.9.2.1.16)	units of coordinate; Vector(5)
coord_trans	vecint_type (7.9.2.1.15)	0 : none; 1 : log10; 2 : ln; Vector(5)
unif_spacing	integer (7.9.2.1.3)	for optimization purposes

Type of: table_5d:table_prop (1623)

7.9.2.1.295 tables

member	type	description
id	matint_type (7.9.2.1.13)	Pointer to table: (1,jproc) indicates table dimensionality for process jproc; (2,jproc) indicates position in that table (index of the last element in the array); Matrix(2,nprocs)
table_0d	table_0d (7.9.2.1.284)	NO DOCS
table_1d	table_1d (7.9.2.1.285)	NO DOCS
table_2d	table_2d (7.9.2.1.286)	NO DOCS
table_3d	table_3d (7.9.2.1.287)	NO DOCS
table_4d	table_4d (7.9.2.1.288)	NO DOCS
table_5d	table_5d (7.9.2.1.289)	NO DOCS

Type of: amns:tables (1354)

7.9.2.1.296 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.2.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : normal (geometrical) polar angle; 3 : other. If option 3, a transformation to the normal poloidal angle is provided in th2th_pol. MORE PRECISE DEFINITION WOULD BE USEFUL.
th2th_pol	matflt_type (7.9.2.1.12)	Polar (geometrical) poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (1651)

7.9.2.1.297 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.2.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.2.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.2.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.2.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (1359)

7.9.2.1.298 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.2.1.14)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.2.1.14)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.2.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.2.1.178)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.

member	type	description
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:te_transp (1361) I neoclassic:mtor_neo (1376) I neoclassic:ne_neo (1376) I neoclassic:te_neo (1376)

7.9.2.1.299 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	array3dflt_type (7.9.2.1.6)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
vconv_eff	array3dflt_type (7.9.2.1.6)	Effective convection [m.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
exchange	array3dflt_type (7.9.2.1.6)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flux	array3dflt_type (7.9.2.1.6)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp:nz_transp (1361) I coretransp:tz_transp (1361) I neoclassic:nz_neo (1376) I neoclassic:tz_neo (1376)

7.9.2.1.300 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.2.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.2.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.2.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.2.1.12)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.2.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.2.1.179)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ti_transp (1361) I neoclassic:ni_neo (1376) I neoclassic:ti_neo (1376)

7.9.2.1.301 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.2.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.2.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.2.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.2.1.179)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.2.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:vtor_transp (1361)

7.9.2.1.302 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.2.1.130)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.2.1.130)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (1386)

7.9.2.1.303 tssetup

diagnostic setup information

member	type	description
position	rz1D (7.9.2.1.231)	RZ of intersection between laser and line of sight [m]; Vector (nchords)

Type of: tsdiag:setup (1386)

7.9.2.1.304 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.2.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.2.1.306)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.2.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.2.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.2.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.2.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.2.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.2.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.2.1.238)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (1387)

7.9.2.1.305 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.2.1.14)	Straight field line poloidal angle; Vector (ntheta_env).
phi	vecflt_type (7.9.2.1.14)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.2.1.14)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.2.1.14)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.2.1.14)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.2.1.14)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.2.1.14)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.2.1.12)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.2.1.12)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.2.1.12)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.2.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.2.1.14)	Electron conductive heat flux [eV m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.2.1.12)	Ion conductive heat flux [eV m^-2/s per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.2.1.14)	Magnetic electron heat flux [eV m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.2.1.12)	Magnetic ion heat flux [eV m^-2/s per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (1387)

7.9.2.1.306 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.2.1.14)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.2.1.14)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.2.1.14)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.2.1.14)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.2.1.14)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (1638)

7.9.2.1.307 turbspec1d

Toroidal mode number spectra.

member	type	description
dim_spec	vecflt_type (7.9.2.1.14)	Perp Wavenumber Spectrum values; Vector (ndim_spec).
phi	vecflt_type (7.9.2.1.14)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.2.1.14)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.2.1.14)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.2.1.14)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.2.1.14)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.2.1.14)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.2.1.12)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.2.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.2.1.14)	Electron conductive heat flux [eV m/s per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.2.1.12)	Ion conductive heat flux [eV m/s per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.2.1.14)	Magnetic electron heat flux [eV m/s per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.2.1.12)	Magnetic ion heat flux [eV m/s per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (1387)

7.9.2.1.308 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.2.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.2.1.14)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.2.1.14)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).
en_mag	vecflt_type (7.9.2.1.14)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.2.1.14)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.2.1.12)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.2.1.14)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.2.1.12)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.2.1.14)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.2.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.2.1.14)	Conductive electron heat flux [eV m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.2.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.2.1.12)	Conductive ion heat flux [eV m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.2.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.2.1.14)	Conductive electron heat flux [eV m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.2.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.2.1.12)	Conductive ion heat flux [eV m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (1387)

7.9.2.1.309 turbvar1d

Dependent variable radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate for the var1d structure. Vector(nrho1d)
phi	vecflt_type (7.9.2.1.14)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.2.1.14)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.2.1.14)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.2.1.14)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.2.1.14)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.2.1.14)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.2.1.14)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.2.1.12)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.2.1.12)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.2.1.12)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (1387)

7.9.2.1.310 turbvar2d

Dependent variable axisymmetric.

member	type	description
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate for the var2d structure. Vector(nrho2d)
theta	vecflt_type (7.9.2.1.14)	Straight field line poloidal angle for the var2d structure. Vector(ntheta2d)
phi	matflt_type (7.9.2.1.12)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.2.1.12)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.2.1.12)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.2.1.12)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.2.1.12)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.2.1.12)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.2.1.6)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.2.1.6)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.2.1.6)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (1387)

7.9.2.1.311 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.2.1.6)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.2.1.6)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.2.1.6)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.2.1.6)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (1387)

7.9.2.1.312 turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.2.1.182)	Position at upper turning point
lower	orbit_pos (7.9.2.1.182)	Position at lower turning point

Type of: special_pos:turning_pts (1610)

7.9.2.1.313 typelist

Definition of types for each neutral species

member	type	description
ntype	vecint_type (7.9.2.1.15)	For each neutral species, number of possible types considered (in terms of energy : cold, thermal, fast, NBI, ...). Vector of integers (nneut)
type	matint_type (7.9.2.1.13)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Matrix of integers (nneut,max_ntype)

Type of: composition_neutrals:typelist (1411)

7.9.2.1.314 waveguides

Waveguides description

member	type	description
nwm_theta	vecint_type (7.9.2.1.15)	Number of waveguides per module in the poloidal direction. Vector of integers (nantenna_lh).
nwm_phi	vecint_type (7.9.2.1.15)	Number of waveguides per module in the toroidal direction. Vector of integers (nantenna_lh).
mask	matint_type (7.9.2.1.13)	Mask of passive and active waveguides for an internal module, Matrix of integers (nantenna_lh,max_nwm_phi)
npwbm_phi	vecint_type (7.9.2.1.15)	Number of passive waveguide between modules in the toroidal direction. Vector of integers (nantenna_lh).
npwe_phi	vecint_type (7.9.2.1.15)	Number of passive waveguides on each antenna edge in the toroidal direction. Vector of integers (nantenna_lh).
sw_theta	vecflt_type (7.9.2.1.14)	Spacing between poloidally neighboring waveguides [m], Vector (nantenna_lh)
hw_theta	vecflt_type (7.9.2.1.14)	Height of waveguides in the poloidal direction [m], Vector (nantenna_lh)
bwa	vecflt_type (7.9.2.1.14)	Width of active waveguides [m], Vector (nantenna_lh)
biwp	vecflt_type (7.9.2.1.14)	Width of internal passive waveguides [m], Vector (nantenna_lh)
bewp	vecflt_type (7.9.2.1.14)	Width of edge passive waveguides [m], Vector (nantenna_lh)
e_phi	matflt_type (7.9.2.1.12)	Thickness between waveguides in the toroidal direction [m], Matrix (nantenna_lh,nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	matflt_type (7.9.2.1.12)	Short circuit length for passive waveguides [m], Matrix (nantenna_lh,nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (1508)

7.9.2.1.315 waves_global_param

Global wave deposition parameters

member	type	description
frequency	float (7.9.2.1.2)	Wave frequency [Hz]; Time-dependent, floating
name	string (7.9.2.1.4)	Antenna name, String
type	string (7.9.2.1.4)	Wave type (LH, EC, IC, ...), String
ntor	vecint_type (7.9.2.1.15)	Toroidal mode numbers; Time-dependent; Vector (ntor)
f_assumption	vecint_type (7.9.2.1.15)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
power_tot	float (7.9.2.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.2.1.14)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_i	vecflt_type (7.9.2.1.14)	Wave power absorbed by an ion species [W]; Time-dependent; Vector (nion)
pow_e	float (7.9.2.1.2)	Wave power absorbed by the electrons [W]; Time-dependent; Float
pow_ntor_i	matflt_type (7.9.2.1.12)	Wave power absorbed by an ion species per toroidal mode number [W]; Time-dependent; Matrix (ntor,nion)
pow_ntor_e	vecflt_type (7.9.2.1.14)	Wave power absorbed by the electrons per toroidal mode number [W]; Time-dependent; Vector (ntor)
cur_tor	float (7.9.2.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.2.1.14)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
code_type	integer (7.9.2.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
toroid_field	b0r0 (7.9.2.1.63)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of parallel current densities in this CPO; Float.

Type of: coherentwave:global_param (1409)

7.9.2.1.316 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.2.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.2.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.2.1.14)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (1409)

7.9.2.1.317 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.2.1.3)	Grid type. 1: rectangular grid in R,Z. 2: rectnagular grid in psi, theta. 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.2.1.12)	Normalised toroidal flux coordinate at the grid points for 1D and 2D profiles; Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.2.1.12)	Toroidal flux coordinate at the grid points for 1D and 2D profiles [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.2.1.12)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.2.1.12)	Grid points of the ploidal angle; Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.2.1.12)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.2.1.12)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.2.1.296)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (1409)

7.9.2.1.318 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.2.1.14)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.2.1.14)	Flux surface averaged absorbed wave power density on electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.2.1.12)	Flux surface averaged absorbed wave power density on ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_ntor	matflt_type (7.9.2.1.12)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.2.1.12)	Flux surface averaged absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.2.1.6)	Flux surface averaged power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
curd_tor	vecflt_type (7.9.2.1.14)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.2.1.12)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.2.1.14)	Volume integrated absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.2.1.14)	Volume integrated absorbed wave power density on electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.2.1.12)	Volume integrated absorbed wave power density on ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_ntor	array3dflt_type (7.9.2.1.6)	Volume integrated power density for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.2.1.12)	Volume integrated power density for each toroidal mode number on the electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.2.1.6)	Volume integrated power density for each toroidal mode number on each ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
curd_par	vecflt_type (7.9.2.1.14)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Vector (npsi)

member	type	description
curd_parntor	matflt_type (7.9.2.1.12)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 is in global_param/toroidal_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.2.1.14)	Wave driven toroidal current inside a flux surface from stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.2.1.12)	Wave driven toroidal current inside a flux surface for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (1409)

7.9.2.1.319 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.2.1.12)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.2.1.12)	Absorbed wave power density on electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.2.1.6)	Absorbed wave power density on ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_ntor	array3dflt_type (7.9.2.1.6)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.2.1.6)	Absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.2.1.8)	Absorbed power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_iharm	array5dflt_type (7.9.2.1.9)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (1409)

7.9.2.1.320 waves_rtposition

Ray/beam position

member	type	description
r	matflt_type (7.9.2.1.12)	Ray/beam major radius location [m]; Time-dependent; Matrix of double precision real (nbeams, max_npoints)
z	matflt_type (7.9.2.1.12)	Ray/beam vertical location [m]; Time-dependent; Matrix of double precision real (nbeams, max_npoints)
psi	matflt_type (7.9.2.1.12)	Poloidal magnetic flux coordinate of the ray/beam position [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Matrix of double precision real (nbeams, max_npoints)
theta	matflt_type (7.9.2.1.12)	Ray/beam poloidal angle location [rad]; Time-dependent; Matrix of double precision real (nbeams, max_npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE THE PROFILES/GRID DEFINITIONS.
phi	matflt_type (7.9.2.1.12)	Ray/beam toroidal angle location [rad]; Time-dependent; Matrix of double precision real (nbeams, max_npoints)

Type of: beamtracing:position (1399)

7.9.2.1.321 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	matflt_type (7.9.2.1.12)	Ray/beam wave vector in the major radius direction [m-1], Matrix of double precision real (nbeams, max_npoints). Time-dependent
kz	matflt_type (7.9.2.1.12)	Ray/beam wave vector in the vertical direction [m], Matrix of double precision real (nbeams, max_npoints). Time-dependent
npar	matflt_type (7.9.2.1.12)	Ray/beam parallel refractive index, Matrix of double precision real (nbeams, max_npoints). Time-dependent
nperp	matflt_type (7.9.2.1.12)	Ray/beam perpendicular refractive index, Matrix of double precision real (nbeams, max_npoints). Time-dependent
ntor	matflt_type (7.9.2.1.12)	Ray/beam toroidal wave number, Matrix of double precision real (nbeams, max_npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.2.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (1399)

7.9.2.1.322 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.2.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.2.1.4)	Name of the device
shot	integer (7.9.2.1.3)	Shot number
run	integer (7.9.2.1.3)	Run number
occurrence	integer (7.9.2.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (1426)

7.9.2.1.323 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.2.1.231)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.2.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.2.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.2.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.2.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.2.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (1459) itmtypes [557]

7.9.2.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.2.2.1 Fortran

7.9.2.2.2 amns

datainfo (1354)	amns%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	amns%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	amns%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	amns%datainfo%source (string) (7.9.2.1.4)
comment (1426)	amns%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	amns%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	amns%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	amns%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	amns%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	amns%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	amns%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	amns%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	amns%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	amns%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	amns%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	amns%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	amns%datainfo%putinfo%rights (string) (7.9.2.1.4)
version (1354)	amns%version (string) (7.9.2.1.4)
source (1354)	amns%source (string) (7.9.2.1.4)
zn (1354)	amns%zn (integer) (7.9.2.1.3)
zion (1354)	amns%zion (vecint_type) (7.9.2.1.15)
amn (1354)	amns%amn (float) (7.9.2.1.2)

[557] https://www.efda-itm.eu/ITM/html/itmtypes__4.08b.html

state_label (1354)	amns%state_label (vecstring_type) (7.9.2.1.16)
result_label (1354)	amns%result_label (vecstring_type) (7.9.2.1.16)
result_unit (1354)	amns%result_unit (vecstring_type) (7.9.2.1.16)
result_trans (1354)	amns%result_trans (vecint_type) (7.9.2.1.15)
bundled (1354)	amns%bundled (integer) (7.9.2.1.3)
proc_label (1354)	amns%proc_label (vecstring_type) (7.9.2.1.16)
tables (1354)	amns%tables (tables) (7.9.2.1.295)
id (1629)	amns%tables%id (matint_type) (7.9.2.1.13)
table_0d (1629)	amns%tables%table_0d (table_0d) (7.9.2.1.284)
table (1618)	amns%tables%table_0d%table (matflt_type) (7.9.2.1.12)
table_1d (1629)	amns%tables%table_1d (table_1d) (7.9.2.1.285)
table_prop (1619)	amns%tables%table_1d%table_prop (table_info1) (7.9.2.1.290)
coord_extrap (1624)	amns%tables%table_1d%table_prop%coord_extrap (matint_type) (7.9.2.1.13)
interp_type (1624)	amns%tables%table_1d%table_prop%interp_type (integer) (7.9.2.1.3)
coord_label (1624)	amns%tables%table_1d%table_prop%coord_label (string) (7.9.2.1.4)
coord_unit (1624)	amns%tables%table_1d%table_prop%coord_unit (string) (7.9.2.1.4)
coord_trans (1624)	amns%tables%table_1d%table_prop%coord_trans (integer) (7.9.2.1.3)
unif_spacing (1624)	amns%tables%table_1d%table_prop%unif_spacing (integer) (7.9.2.1.3)
coord1 (1619)	amns%tables%table_1d%coord1 (vecflt_type) (7.9.2.1.14)
table (1619)	amns%tables%table_1d%table (array3dflt_type) (7.9.2.1.6)
table_2d (1629)	amns%tables%table_2d (table_2d) (7.9.2.1.286)
table_prop (1620)	amns%tables%table_2d%table_prop (table_info2) (7.9.2.1.291)
coord_extrap (1625)	amns%tables%table_2d%table_prop%coord_extrap (array3dint_type) (7.9.2.1.7)
interp_type (1625)	amns%tables%table_2d%table_prop%interp_type (vecint_type) (7.9.2.1.15)
coord_label (1625)	amns%tables%table_2d%table_prop%coord_label (vecstring_type) (7.9.2.1.16)
coord_unit (1625)	amns%tables%table_2d%table_prop%coord_unit (vecstring_type) (7.9.2.1.16)
coord_trans (1625)	amns%tables%table_2d%table_prop%coord_trans (vecint_type) (7.9.2.1.15)
unif_spacing (1625)	amns%tables%table_2d%table_prop%unif_spacing (integer) (7.9.2.1.3)
coord1 (1620)	amns%tables%table_2d%coord1 (vecflt_type) (7.9.2.1.14)
coord2 (1620)	amns%tables%table_2d%coord2 (vecflt_type) (7.9.2.1.14)
table (1620)	amns%tables%table_2d%table (array4dflt_type) (7.9.2.1.8)
table_3d (1629)	amns%tables%table_3d (table_3d) (7.9.2.1.287)
table_prop (1621)	amns%tables%table_3d%table_prop (table_info3) (7.9.2.1.292)
coord_extrap (1626)	amns%tables%table_3d%table_prop%coord_extrap (array3dint_type) (7.9.2.1.7)
interp_type (1626)	amns%tables%table_3d%table_prop%interp_type (vecint_type) (7.9.2.1.15)
coord_label (1626)	amns%tables%table_3d%table_prop%coord_label (vecstring_type) (7.9.2.1.16)
coord_unit (1626)	amns%tables%table_3d%table_prop%coord_unit (vecstring_type) (7.9.2.1.16)
coord_trans (1626)	amns%tables%table_3d%table_prop%coord_trans (vecint_type) (7.9.2.1.15)
unif_spacing (1626)	amns%tables%table_3d%table_prop%unif_spacing (integer) (7.9.2.1.3)
coord1 (1621)	amns%tables%table_3d%coord1 (vecflt_type) (7.9.2.1.14)
coord2 (1621)	amns%tables%table_3d%coord2 (vecflt_type) (7.9.2.1.14)
coord3 (1621)	amns%tables%table_3d%coord3 (vecflt_type) (7.9.2.1.14)
table (1621)	amns%tables%table_3d%table (array5dflt_type) (7.9.2.1.9)
table_4d (1629)	amns%tables%table_4d (table_4d) (7.9.2.1.288)
table_prop (1622)	amns%tables%table_4d%table_prop (table_info4) (7.9.2.1.293)
coord_extrap (1627)	amns%tables%table_4d%table_prop%coord_extrap (array3dint_type) (7.9.2.1.7)
interp_type (1627)	amns%tables%table_4d%table_prop%interp_type (vecint_type) (7.9.2.1.15)
coord_label (1627)	amns%tables%table_4d%table_prop%coord_label (vecstring_type) (7.9.2.1.16)
coord_unit (1627)	amns%tables%table_4d%table_prop%coord_unit (vecstring_type) (7.9.2.1.16)
coord_trans (1627)	amns%tables%table_4d%table_prop%coord_trans (vecint_type) (7.9.2.1.15)
unif_spacing (1627)	amns%tables%table_4d%table_prop%unif_spacing (integer) (7.9.2.1.3)
coord1 (1622)	amns%tables%table_4d%coord1 (vecflt_type) (7.9.2.1.14)
coord2 (1622)	amns%tables%table_4d%coord2 (vecflt_type) (7.9.2.1.14)
coord3 (1622)	amns%tables%table_4d%coord3 (vecflt_type) (7.9.2.1.14)
coord4 (1622)	amns%tables%table_4d%coord4 (vecflt_type) (7.9.2.1.14)
table (1622)	amns%tables%table_4d%table (array6dflt_type) (7.9.2.1.10)
table_5d (1629)	amns%tables%table_5d (table_5d) (7.9.2.1.289)
table_prop (1623)	amns%tables%table_5d%table_prop (table_info5) (7.9.2.1.294)
coord_extrap (1628)	amns%tables%table_5d%table_prop%coord_extrap (array3dint_type) (7.9.2.1.7)
interp_type (1628)	amns%tables%table_5d%table_prop%interp_type (vecint_type) (7.9.2.1.15)
coord_label (1628)	amns%tables%table_5d%table_prop%coord_label (vecstring_type) (7.9.2.1.16)

coord_unit (1628)	amns%tables%table_5d%table_prop%coord_unit (vecstring_type) (7.9.2.1.16)
coord_trans (1628)	amns%tables%table_5d%table_prop%coord_trans (vecint_type) (7.9.2.1.15)
unif_spacing (1628)	amns%tables%table_5d%table_prop%unif_spacing (integer) (7.9.2.1.3)
coord1 (1623)	amns%tables%table_5d%coord1 (vecflt_type) (7.9.2.1.14)
coord2 (1623)	amns%tables%table_5d%coord2 (vecflt_type) (7.9.2.1.14)
coord3 (1623)	amns%tables%table_5d%coord3 (vecflt_type) (7.9.2.1.14)
coord4 (1623)	amns%tables%table_5d%coord4 (vecflt_type) (7.9.2.1.14)
coord5 (1623)	amns%tables%table_5d%coord5 (vecflt_type) (7.9.2.1.14)
table (1623)	amns%tables%table_5d%table (array6dflt_type) (7.9.2.1.10)

7.9.2.2.3 antennas

datainfo (1355)	antennas%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	antennas%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	antennas%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	antennas%datainfo%source (string) (7.9.2.1.4)
comment (1426)	antennas%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	antennas%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	antennas%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	antennas%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	antennas%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	antennas%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	antennas%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	antennas%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	antennas%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	antennas%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	antennas%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	antennas%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	antennas%datainfo%putinfo%rights (string) (7.9.2.1.4)
antenna_ec (1355)	antennas%antenna_ec (antenna_ec) (7.9.2.1.57)
name (1391)	antennas%antenna_ec%name (vecstring_type) (7.9.2.1.16)
frequency (1391)	antennas%antenna_ec%frequency (vecflt_type) (7.9.2.1.14)
power (1391)	antennas%antenna_ec%power (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_ec%power%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_ec%power%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_ec%power%relerror (vecflt_type) (7.9.2.1.14)
mode (1391)	antennas%antenna_ec%mode (vecint_type) (7.9.2.1.15)
position (1391)	antennas%antenna_ec%position (rzphi1D) (7.9.2.1.235)
r (1569)	antennas%antenna_ec%position%r (vecflt_type) (7.9.2.1.14)
z (1569)	antennas%antenna_ec%position%z (vecflt_type) (7.9.2.1.14)
phi (1569)	antennas%antenna_ec%position%phi (vecflt_type) (7.9.2.1.14)
launchangles (1391)	antennas%antenna_ec%launchangles (launchangles) (7.9.2.1.161)
alpha (1495)	antennas%antenna_ec%launchangles%alpha (vecflt_type) (7.9.2.1.14)
beta (1495)	antennas%antenna_ec%launchangles%beta (vecflt_type) (7.9.2.1.14)
beam (1391)	antennas%antenna_ec%beam (rf_beam) (7.9.2.1.229)
spot (1563)	antennas%antenna_ec%beam%spot (spot) (7.9.2.1.278)
waist (1612)	antennas%antenna_ec%beam%spot%waist (matflt_type) (7.9.2.1.12)
angle (1612)	antennas%antenna_ec%beam%spot%angle (vecflt_type) (7.9.2.1.14)
phaseellipse (1563)	antennas%antenna_ec%beam%phaseellipse (phaseellipse) (7.9.2.1.193)
invcurvrad (1527)	antennas%antenna_ec%beam%phaseellipse%invcurvrad (matflt_type) (7.9.2.1.12)
angle (1527)	antennas%antenna_ec%beam%phaseellipse%angle (vecflt_type) (7.9.2.1.14)
antenna_ic (1355)	antennas%antenna_ic (antenna_ic) (7.9.2.1.58)
name (1392)	antennas%antenna_ic%name (vecstring_type) (7.9.2.1.16)
frequency (1392)	antennas%antenna_ic%frequency (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_ic%frequency%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_ic%frequency%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_ic%frequency%relerror (vecflt_type) (7.9.2.1.14)
power (1392)	antennas%antenna_ic%power (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_ic%power%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_ic%power%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_ic%power%relerror (vecflt_type) (7.9.2.1.14)

setup (1392)	antennas%antenna_ic%setup (antennaic_setup) (7.9.2.1.60)
straps (1394)	antennas%antenna_ic%setup%straps (straps) (7.9.2.1.283)
nstraps (1617)	antennas%antenna_ic%setup%straps%nstraps (vecint_type) (7.9.2.1.15)
phase (1617)	antennas%antenna_ic%setup%straps%phase (exp2D) (7.9.2.1.131)
value (1465)	antennas%antenna_ic%setup%straps%phase%value (matflt_type) (7.9.2.1.12)
abserror (1465)	antennas%antenna_ic%setup%straps%phase%abserror (matflt_type) (7.9.2.1.12)
relerror (1465)	antennas%antenna_ic%setup%straps%phase%relerror (matflt_type) (7.9.2.1.12)
phi_centre (1617)	antennas%antenna_ic%setup%straps%phi_centre (matflt_type) (7.9.2.1.12)
width (1617)	antennas%antenna_ic%setup%straps%width (matflt_type) (7.9.2.1.12)
dist2wall (1617)	antennas%antenna_ic%setup%straps%dist2wall (matflt_type) (7.9.2.1.12)
ncoord_strap (1617)	antennas%antenna_ic%setup%straps%ncoord_strap (matint_type) (7.9.2.1.13)
coord_strap (1617)	antennas%antenna_ic%setup%straps%coord_strap (rz3D) (7.9.2.1.234)
r (1568)	antennas%antenna_ic%setup%straps%coord_strap%r (array3dflt_type) (7.9.2.1.6)
z (1568)	antennas%antenna_ic%setup%straps%coord_strap%z (array3dflt_type) (7.9.2.1.6)
antenna_lh (1355)	antennas%antenna_lh (antenna_lh) (7.9.2.1.59)
name (1393)	antennas%antenna_lh%name (vecstring_type) (7.9.2.1.16)
frequency (1393)	antennas%antenna_lh%frequency (vecflt_type) (7.9.2.1.14)
power (1393)	antennas%antenna_lh%power (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_lh%power%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_lh%power%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_lh%power%relerror (vecflt_type) (7.9.2.1.14)
n_par (1393)	antennas%antenna_lh%n_par (vecflt_type) (7.9.2.1.14)
position (1393)	antennas%antenna_lh%position (rzphi1Dexp) (7.9.2.1.236)
r (1570)	antennas%antenna_lh%position%r (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_lh%position%r%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_lh%position%r%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_lh%position%r%relerror (vecflt_type) (7.9.2.1.14)
z (1570)	antennas%antenna_lh%position%z (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_lh%position%z%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_lh%position%z%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_lh%position%z%relerror (vecflt_type) (7.9.2.1.14)
phi (1570)	antennas%antenna_lh%position%phi (exp1D) (7.9.2.1.130)
value (1464)	antennas%antenna_lh%position%phi%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	antennas%antenna_lh%position%phi%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	antennas%antenna_lh%position%phi%relerror (vecflt_type) (7.9.2.1.14)
setup (1393)	antennas%antenna_lh%setup (antennalh_setup) (7.9.2.1.61)
modules (1395)	antennas%antenna_lh%setup%modules (modules) (7.9.2.1.174)
nma_theta (1508)	antennas%antenna_lh%setup%modules%nma_theta (vecint_type) (7.9.2.1.15)
nma_phi (1508)	antennas%antenna_lh%setup%modules%nma_phi (vecint_type) (7.9.2.1.15)
ima_theta (1508)	antennas%antenna_lh%setup%modules%ima_theta (matint_type) (7.9.2.1.13)
ima_phi (1508)	antennas%antenna_lh%setup%modules%ima_phi (matint_type) (7.9.2.1.13)
sm_theta (1508)	antennas%antenna_lh%setup%modules%sm_theta (vecflt_type) (7.9.2.1.14)
amplitude (1508)	antennas%antenna_lh%setup%modules%amplitude (exp2D) (7.9.2.1.131)
value (1465)	antennas%antenna_lh%setup%modules%amplitude%value (matflt_type) (7.9.2.1.12)
abserror (1465)	antennas%antenna_lh%setup%modules%amplitude%abserror (matflt_type) (7.9.2.1.12)
relerror (1465)	antennas%antenna_lh%setup%modules%amplitude%relerror (matflt_type) (7.9.2.1.12)
phase (1508)	antennas%antenna_lh%setup%modules%phase (exp2D) (7.9.2.1.131)
value (1465)	antennas%antenna_lh%setup%modules%phase%value (matflt_type) (7.9.2.1.12)
abserror (1465)	antennas%antenna_lh%setup%modules%phase%abserror (matflt_type) (7.9.2.1.12)
relerror (1465)	antennas%antenna_lh%setup%modules%phase%relerror (matflt_type) (7.9.2.1.12)
waveguides (1508)	antennas%antenna_lh%setup%modules%waveguides (waveguides) (7.9.2.1.314)
nwm_theta (1648)	antennas%antenna_lh%setup%modules%waveguides%nwm_theta (vecint_type) (7.9.2.1.15)
nwm_phi (1648)	antennas%antenna_lh%setup%modules%waveguides%nwm_phi (vecint_type) (7.9.2.1.15)
mask (1648)	antennas%antenna_lh%setup%modules%waveguides%mask (matint_type) (7.9.2.1.13)
npwbm_phi (1648)	antennas%antenna_lh%setup%modules%waveguides%npwbm_phi (vecint_type) (7.9.2.1.15)
npwe_phi (1648)	antennas%antenna_lh%setup%modules%waveguides%npwe_phi (vecint_type) (7.9.2.1.15)
sw_theta (1648)	antennas%antenna_lh%setup%modules%waveguides%sw_theta (vecflt_type) (7.9.2.1.14)
hw_theta (1648)	antennas%antenna_lh%setup%modules%waveguides%hw_theta (vecflt_type) (7.9.2.1.14)
bwa (1648)	antennas%antenna_lh%setup%modules%waveguides%bwa (vecflt_type) (7.9.2.1.14)
biwp (1648)	antennas%antenna_lh%setup%modules%waveguides%biwp (vecflt_type) (7.9.2.1.14)
bewp (1648)	antennas%antenna_lh%setup%modules%waveguides%bewp (vecflt_type) (7.9.2.1.14)

e_phi (1648)	antennas%antenna_lh%setup%modules%waveguides%e_phi (matflt_type) (7.9.2.1.12)
scl (1648)	antennas%antenna_lh%setup%modules%waveguides%scl (matflt_type) (7.9.2.1.12)
plasmaedge (1393)	antennas%antenna_lh%plasmaedge (plasmaedge) (7.9.2.1.194)
npoints (1528)	antennas%antenna_lh%plasmaedge%npoints (vecint_type) (7.9.2.1.15)
distance (1528)	antennas%antenna_lh%plasmaedge%distance (matflt_type) (7.9.2.1.12)
density (1528)	antennas%antenna_lh%plasmaedge%density (matflt_type) (7.9.2.1.12)
beam (1393)	antennas%antenna_lh%beam (rf_beam) (7.9.2.1.229)
spot (1563)	antennas%antenna_lh%beam%spot (spot) (7.9.2.1.278)
waist (1612)	antennas%antenna_lh%beam%spot%waist (matflt_type) (7.9.2.1.12)
angle (1612)	antennas%antenna_lh%beam%spot%angle (vecflt_type) (7.9.2.1.14)
phaseellipse (1563)	antennas%antenna_lh%beam%phaseellipse (phaseellipse) (7.9.2.1.193)
invcurvrad (1527)	antennas%antenna_lh%beam%phaseellipse%invcurvrad (matflt_type) (7.9.2.1.12)
angle (1527)	antennas%antenna_lh%beam%phaseellipse%angle (vecflt_type) (7.9.2.1.14)
codeparam (1355)	antennas%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	antennas%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	antennas%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	antennas%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	antennas%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	antennas%codeparam%output_flag (integer) (7.9.2.1.3)
time (1355)	antennas%time (float) (7.9.2.1.2)

7.9.2.2.4 coredelta

datainfo (1356)	coredelta%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coredelta%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coredelta%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coredelta%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coredelta%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coredelta%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coredelta%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coredelta%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coredelta%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coredelta%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coredelta%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coredelta%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coredelta%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coredelta%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coredelta%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coredelta%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coredelta%datainfo%putinfo%rights (string) (7.9.2.1.4)
composition (1356)	coredelta%composition (composition) (7.9.2.1.76)
amn (1410)	coredelta%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	coredelta%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	coredelta%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	coredelta%composition%imp_flag (vecint_type) (7.9.2.1.15)
rho_tor (1356)	coredelta%rho_tor (vecflt_type) (7.9.2.1.14)
rho_tor_norm (1356)	coredelta%rho_tor_norm (vecflt_type) (7.9.2.1.14)
delta_psi (1356)	coredelta%delta_psi (vecflt_type) (7.9.2.1.14)
delta_te (1356)	coredelta%delta_te (vecflt_type) (7.9.2.1.14)
delta_ti (1356)	coredelta%delta_ti (matflt_type) (7.9.2.1.12)
delta_tz (1356)	coredelta%delta_tz (array3dflt_type) (7.9.2.1.6)
delta_ne (1356)	coredelta%delta_ne (vecflt_type) (7.9.2.1.14)
delta_ni (1356)	coredelta%delta_ni (matflt_type) (7.9.2.1.12)
delta_nz (1356)	coredelta%delta_nz (array3dflt_type) (7.9.2.1.6)
delta_vtor (1356)	coredelta%delta_vtor (matflt_type) (7.9.2.1.12)
codeparam (1356)	coredelta%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coredelta%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coredelta%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coredelta%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coredelta%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coredelta%codeparam%output_flag (integer) (7.9.2.1.3)

time (1356)	coredelta%time (float) (7.9.2.1.2)

7.9.2.2.5 coreimpur

datainfo (1357)	coreimpur%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coreimpur%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coreimpur%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coreimpur%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coreimpur%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coreimpur%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coreimpur%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coreimpur%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coreimpur%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coreimpur%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coreimpur%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coreimpur%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coreimpur%datainfo%putinfo%rights (string) (7.9.2.1.4)
rho_tor_norm (1357)	coreimpur%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1357)	coreimpur%rho_tor (vecflt_type) (7.9.2.1.14)
source (1357)	coreimpur%source (vecstring_type) (7.9.2.1.16)
flag (1357)	coreimpur%flag (vecint_type) (7.9.2.1.15)
desc_impur (1357)	coreimpur%desc_impur (desc_impur) (7.9.2.1.93)
amn (1427)	coreimpur%desc_impur%amn (vecflt_type) (7.9.2.1.14)
zn (1427)	coreimpur%desc_impur%zn (vecint_type) (7.9.2.1.15)
i_ion (1427)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.2.1.15)
nzimp (1427)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.2.1.15)
zmin (1427)	coreimpur%desc_impur%zmin (matint_type) (7.9.2.1.13)
zmax (1427)	coreimpur%desc_impur%zmax (matint_type) (7.9.2.1.13)
z (1357)	coreimpur%z (array3dflt_type) (7.9.2.1.6)
zsq (1357)	coreimpur%zsq (array3dflt_type) (7.9.2.1.6)
nz (1357)	coreimpur%nz (array3dflt_type) (7.9.2.1.6)
source_term (1357)	coreimpur%source_term (sourceimp) (7.9.2.1.274)
value (1608)	coreimpur%source_term%value (array3dflt_type) (7.9.2.1.6)
integral (1608)	coreimpur%source_term%integral (array3dflt_type) (7.9.2.1.6)
source (1608)	coreimpur%source_term%source (vecstring_type) (7.9.2.1.16)
boundary (1357)	coreimpur%boundary (boundaryimp) (7.9.2.1.70)
value (1404)	coreimpur%boundary%value (array3dflt_type) (7.9.2.1.6)
source (1404)	coreimpur%boundary%source (vecstring_type) (7.9.2.1.16)
type (1404)	coreimpur%boundary%type (matint_type) (7.9.2.1.13)
rho (1404)	coreimpur%boundary%rho (matflt_type) (7.9.2.1.12)
codeparam (1404)	coreimpur%boundary%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreimpur%boundary%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreimpur%boundary%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreimpur%boundary%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreimpur%boundary%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreimpur%boundary%codeparam%output_flag (integer) (7.9.2.1.3)
transp_coef (1357)	coreimpur%transp_coef (coretransimp) (7.9.2.1.88)
diff (1422)	coreimpur%transp_coef%diff (array3dflt_type) (7.9.2.1.6)
vconv (1422)	coreimpur%transp_coef%vconv (array3dflt_type) (7.9.2.1.6)
source (1422)	coreimpur%transp_coef%source (vecstring_type) (7.9.2.1.16)
flux (1357)	coreimpur%flux (fluximp) (7.9.2.1.136)
flux_dv (1470)	coreimpur%flux%flux_dv (array3dflt_type) (7.9.2.1.6)
flux_interp (1470)	coreimpur%flux%flux_interp (array3dflt_type) (7.9.2.1.6)
time_deriv (1357)	coreimpur%time_deriv (array3dflt_type) (7.9.2.1.6)
atomic_data (1357)	coreimpur%atomic_data (vecstring_type) (7.9.2.1.16)
time (1357)	coreimpur%time (float) (7.9.2.1.2)
codeparam (1357)	coreimpur%codeparam (codeparam) (7.9.2.1.73)

codename (1407)	coreimpur%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreimpur%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreimpur%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreimpur%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreimpur%codeparam%output_flag (integer) (7.9.2.1.3)

7.9.2.2.6 coreneutrals

datainfo (1358)	coreneutrals%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coreneutrals%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coreneutrals%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coreneutrals%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coreneutrals%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coreneutrals%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coreneutrals%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coreneutrals%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coreneutrals%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coreneutrals%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coreneutrals%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coreneutrals%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coreneutrals%datainfo%putinfo%rights (string) (7.9.2.1.4)
rho_tor (1358)	coreneutrals%rho_tor (vecflt_type) (7.9.2.1.14)
rho_tor_norm (1358)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.2.1.14)
composition (1358)	coreneutrals%composition (composition_neutrals) (7.9.2.1.77)
atomlist (1411)	coreneutrals%composition%atomlist (atomlist) (7.9.2.1.62)
amn (1396)	coreneutrals%composition%atomlist%amn (vecflt_type) (7.9.2.1.14)
zn (1396)	coreneutrals%composition%atomlist%zn (vecflt_type) (7.9.2.1.14)
neutrallist (1411)	coreneutrals%composition%neutrallist (neutrallist) (7.9.2.1.176)
ncomp (1510)	coreneutrals%composition%neutrallist%ncomp (vecint_type) (7.9.2.1.15)
tatm (1510)	coreneutrals%composition%neutrallist%tatm (matint_type) (7.9.2.1.13)
multatm (1510)	coreneutrals%composition%neutrallist%multatm (matint_type) (7.9.2.1.13)
typelist (1411)	coreneutrals%composition%typelist (typelist) (7.9.2.1.313)
ntype (1647)	coreneutrals%composition%typelist%ntype (vecint_type) (7.9.2.1.15)
type (1647)	coreneutrals%composition%typelist%type (matint_type) (7.9.2.1.13)
profiles (1358)	coreneutrals%profiles (profiles_neutrals) (7.9.2.1.201)
n0 (1535)	coreneutrals%profiles%n0 (corefieldneutral) (7.9.2.1.81)
value (1415)	coreneutrals%profiles%n0%value (array3dflt_type) (7.9.2.1.6)
flux (1415)	coreneutrals%profiles%n0%flux (array3dflt_type) (7.9.2.1.6)
boundary (1415)	coreneutrals%profiles%n0%boundary (boundary_neutrals) (7.9.2.1.68)
value (1402)	coreneutrals%profiles%n0%boundary%value (array3dflt_type) (7.9.2.1.6)
type (1402)	coreneutrals%profiles%n0%boundary%type (matint_type) (7.9.2.1.13)
rho_tor (1402)	coreneutrals%profiles%n0%boundary%rho_tor (matint_type) (7.9.2.1.13)
t0 (1535)	coreneutrals%profiles%t0 (corefieldneutrale) (7.9.2.1.82)
value (1416)	coreneutrals%profiles%t0%value (array3dflt_type) (7.9.2.1.6)
flux (1416)	coreneutrals%profiles%t0%flux (array3dflt_type) (7.9.2.1.6)
boundary (1416)	coreneutrals%profiles%t0%boundary (boundary_neutrals) (7.9.2.1.68)
value (1402)	coreneutrals%profiles%t0%boundary%value (array3dflt_type) (7.9.2.1.6)
type (1402)	coreneutrals%profiles%t0%boundary%type (matint_type) (7.9.2.1.13)
rho_tor (1402)	coreneutrals%profiles%t0%boundary%rho_tor (matint_type) (7.9.2.1.13)
v0 (1535)	coreneutrals%profiles%v0 (corefieldneutralv0) (7.9.2.1.84)
toroidal (1418)	coreneutrals%profiles%v0%toroidal (corefieldneutralv) (7.9.2.1.83)
value (1417)	coreneutrals%profiles%v0%toroidal%value (array3dflt_type) (7.9.2.1.6)
boundary (1417)	coreneutrals%profiles%v0%toroidal%boundary (boundary_neutrals) (7.9.2.1.68)
value (1402)	coreneutrals%profiles%v0%toroidal%boundary%value (array3dflt_type) (7.9.2.1.6)
type (1402)	coreneutrals%profiles%v0%toroidal%boundary%type (matint_type) (7.9.2.1.13)
rho_tor (1402)	coreneutrals%profiles%v0%toroidal%boundary%rho_tor (matint_type) (7.9.2.1.13)
poloidal (1418)	coreneutrals%profiles%v0%poloidal (corefieldneutralv) (7.9.2.1.83)

value (1417)	coreneutrals%profiles%v0%poloidal%value (array3dflt_type) (7.9.2.1.6)
boundary (1417)	coreneutrals%profiles%v0%poloidal%boundary (boundary_neutrals) (7.9.2.1.68)
value (1402)	coreneutrals%profiles%v0%poloidal%boundary%value (array3dflt_type) (7.9.2.1.6)
type (1402)	coreneutrals%profiles%v0%poloidal%boundary%type (matint_type) (7.9.2.1.13)
rho_tor (1402)	coreneutrals%profiles%v0%poloidal%boundary%rho_tor (matint_type) (7.9.2.1.13)
radial (1418)	coreneutrals%profiles%v0%radial (corefieldneutralv) (7.9.2.1.83)
value (1417)	coreneutrals%profiles%v0%radial%value (array3dflt_type) (7.9.2.1.6)
boundary (1417)	coreneutrals%profiles%v0%radial%boundary (boundary_neutrals) (7.9.2.1.68)
value (1402)	coreneutrals%profiles%v0%radial%boundary%value (array3dflt_type) (7.9.2.1.6)
type (1402)	coreneutrals%profiles%v0%radial%boundary%type (matint_type) (7.9.2.1.13)
rho_tor (1402)	coreneutrals%profiles%v0%radial%boundary%rho_tor (matint_type) (7.9.2.1.13)
prad0 (1535)	coreneutrals%profiles%prad0 (matflt_type) (7.9.2.1.12)
coefficients (1358)	coreneutrals%coefficients (coefficients_neutrals) (7.9.2.1.74)
recycling (1408)	coreneutrals%coefficients%recycling (recycling_neutrals) (7.9.2.1.206)
particles (1540)	coreneutrals%coefficients%recycling%particles (matflt_type) (7.9.2.1.12)
energy (1540)	coreneutrals%coefficients%recycling%energy (matflt_type) (7.9.2.1.12)
sputtering (1408)	coreneutrals%coefficients%sputtering (sputtering_neutrals) (7.9.2.1.279)
physical (1613)	coreneutrals%coefficients%sputtering%physical (matflt_type) (7.9.2.1.12)
chemical (1613)	coreneutrals%coefficients%sputtering%chemical (matflt_type) (7.9.2.1.12)
codeparam (1358)	coreneutrals%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreneutrals%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreneutrals%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreneutrals%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreneutrals%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreneutrals%codeparam%output_flag (integer) (7.9.2.1.3)
time (1358)	coreneutrals%time (float) (7.9.2.1.2)

7.9.2.2.7 coreprof

datainfo (1359)	coreprof%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coreprof%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coreprof%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coreprof%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coreprof%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coreprof%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coreprof%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coreprof%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coreprof%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coreprof%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coreprof%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coreprof%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coreprof%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coreprof%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coreprof%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coreprof%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coreprof%datainfo%putinfo%rights (string) (7.9.2.1.4)
rho_tor_norm (1359)	coreprof%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1359)	coreprof%rho_tor (vecflt_type) (7.9.2.1.14)
drho_dt (1359)	coreprof%drho_dt (vecflt_type) (7.9.2.1.14)
toroid_field (1359)	coreprof%toroid_field (toroid_field) (7.9.2.1.297)
b0 (1631)	coreprof%toroid_field%b0 (float) (7.9.2.1.2)
b0prime (1631)	coreprof%toroid_field%b0prime (float) (7.9.2.1.2)
r0 (1631)	coreprof%toroid_field%r0 (float) (7.9.2.1.2)
time (1631)	coreprof%toroid_field%time (float) (7.9.2.1.2)
composition (1359)	coreprof%composition (composition) (7.9.2.1.76)
amn (1410)	coreprof%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	coreprof%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	coreprof%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	coreprof%composition%imp_flag (vecint_type) (7.9.2.1.15)
psi (1359)	coreprof%psi (psi) (7.9.2.1.203)
value (1537)	coreprof%psi%value (vecflt_type) (7.9.2.1.14)

derivative (1537)	coreprof%psi%derivative (vecflt_type) (7.9.2.1.14)
source (1537)	coreprof%psi%source (string) (7.9.2.1.4)
flag (1537)	coreprof%psi%flag (integer) (7.9.2.1.3)
boundary (1537)	coreprof%psi%boundary (boundary) (7.9.2.1.67)
value (1401)	coreprof%psi%boundary%value (vecflt_type) (7.9.2.1.14)
source (1401)	coreprof%psi%boundary%source (string) (7.9.2.1.4)
type (1401)	coreprof%psi%boundary%type (integer) (7.9.2.1.3)
rho (1401)	coreprof%psi%boundary%rho (float) (7.9.2.1.2)
codeparam (1401)	coreprof%psi%boundary%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%psi%boundary%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.2.1.3)
jni (1537)	coreprof%psi%jni (jni) (7.9.2.1.160)
value (1494)	coreprof%psi%jni%value (vecflt_type) (7.9.2.1.14)
integral (1494)	coreprof%psi%jni%integral (vecflt_type) (7.9.2.1.14)
source (1494)	coreprof%psi%jni%source (string) (7.9.2.1.4)
sigma_par (1537)	coreprof%psi%sigma_par (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%psi%sigma_par%source (string) (7.9.2.1.4)
codeparam (1537)	coreprof%psi%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%psi%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%psi%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%psi%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%psi%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%psi%codeparam%output_flag (integer) (7.9.2.1.3)
te (1359)	coreprof%te (corefield) (7.9.2.1.79)
value (1413)	coreprof%te%value (vecflt_type) (7.9.2.1.14)
derivative (1413)	coreprof%te%derivative (vecflt_type) (7.9.2.1.14)
source (1413)	coreprof%te%source (string) (7.9.2.1.4)
flag (1413)	coreprof%te%flag (integer) (7.9.2.1.3)
boundary (1413)	coreprof%te%boundary (boundaryel) (7.9.2.1.69)
value (1403)	coreprof%te%boundary%value (vecflt_type) (7.9.2.1.14)
source (1403)	coreprof%te%boundary%source (string) (7.9.2.1.4)
type (1403)	coreprof%te%boundary%type (integer) (7.9.2.1.3)
rho_tor (1403)	coreprof%te%boundary%rho_tor (float) (7.9.2.1.2)
source_term (1413)	coreprof%te%source_term (sourceel) (7.9.2.1.273)
value (1607)	coreprof%te%source_term%value (vecflt_type) (7.9.2.1.14)
integral (1607)	coreprof%te%source_term%integral (vecflt_type) (7.9.2.1.14)
source (1607)	coreprof%te%source_term%source (string) (7.9.2.1.4)
transp_coef (1413)	coreprof%te%transp_coef (coretransel) (7.9.2.1.87)
diff (1421)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.2.1.14)
vconv (1421)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.2.1.14)
source (1421)	coreprof%te%transp_coef%source (string) (7.9.2.1.4)
flux (1413)	coreprof%te%flux (fluxel) (7.9.2.1.135)
flux_dv (1469)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.2.1.14)
flux_interp (1469)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.2.1.14)
time_deriv (1413)	coreprof%te%time_deriv (vecflt_type) (7.9.2.1.14)
codeparam (1413)	coreprof%te%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%te%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%te%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%te%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%te%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%te%codeparam%output_flag (integer) (7.9.2.1.3)
ti (1359)	coreprof%ti (corefieldion) (7.9.2.1.80)
value (1414)	coreprof%ti%value (matflt_type) (7.9.2.1.12)
derivative (1414)	coreprof%ti%derivative (matflt_type) (7.9.2.1.12)
source (1414)	coreprof%ti%source (vecstring_type) (7.9.2.1.16)
flag (1414)	coreprof%ti%flag (vecint_type) (7.9.2.1.15)
boundary (1414)	coreprof%ti%boundary (boundaryion) (7.9.2.1.71)

value (1405)	coreprof%ti%boundary%value (matflt_type) (7.9.2.1.12)
source (1405)	coreprof%ti%boundary%source (vecstring_type) (7.9.2.1.16)
type (1405)	coreprof%ti%boundary%type (vecint_type) (7.9.2.1.15)
rho_tor (1405)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.2.1.14)
source_term (1414)	coreprof%ti%source_term (sourceion) (7.9.2.1.275)
value (1609)	coreprof%ti%source_term%value (matflt_type) (7.9.2.1.12)
integral (1609)	coreprof%ti%source_term%integral (matflt_type) (7.9.2.1.12)
source (1609)	coreprof%ti%source_term%source (vecstring_type) (7.9.2.1.16)
transp_coef (1414)	coreprof%ti%transp_coef (coretransion) (7.9.2.1.89)
diff (1423)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.2.1.12)
vconv (1423)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.2.1.12)
source (1423)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.2.1.16)
flux (1414)	coreprof%ti%flux (fluxion) (7.9.2.1.137)
flux_dv (1471)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.2.1.12)
flux_interp (1471)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.2.1.12)
time_deriv (1414)	coreprof%ti%time_deriv (matflt_type) (7.9.2.1.12)
codeparam (1414)	coreprof%ti%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%ti%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%ti%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%ti%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%ti%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%ti%codeparam%output_flag (integer) (7.9.2.1.3)
ne (1359)	coreprof%ne (corefield) (7.9.2.1.79)
value (1413)	coreprof%ne%value (vecflt_type) (7.9.2.1.14)
derivative (1413)	coreprof%ne%derivative (vecflt_type) (7.9.2.1.14)
source (1413)	coreprof%ne%source (string) (7.9.2.1.4)
flag (1413)	coreprof%ne%flag (integer) (7.9.2.1.3)
boundary (1413)	coreprof%ne%boundary (boundaryel) (7.9.2.1.69)
value (1403)	coreprof%ne%boundary%value (vecflt_type) (7.9.2.1.14)
source (1403)	coreprof%ne%boundary%source (string) (7.9.2.1.4)
type (1403)	coreprof%ne%boundary%type (integer) (7.9.2.1.3)
rho_tor (1403)	coreprof%ne%boundary%rho_tor (float) (7.9.2.1.2)
source_term (1413)	coreprof%ne%source_term (sourceel) (7.9.2.1.273)
value (1607)	coreprof%ne%source_term%value (vecflt_type) (7.9.2.1.14)
integral (1607)	coreprof%ne%source_term%integral (vecflt_type) (7.9.2.1.14)
source (1607)	coreprof%ne%source_term%source (string) (7.9.2.1.4)
transp_coef (1413)	coreprof%ne%transp_coef (coretransel) (7.9.2.1.87)
diff (1421)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.2.1.14)
vconv (1421)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.2.1.14)
source (1421)	coreprof%ne%transp_coef%source (string) (7.9.2.1.4)
flux (1413)	coreprof%ne%flux (fluxel) (7.9.2.1.135)
flux_dv (1469)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.2.1.14)
flux_interp (1469)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.2.1.14)
time_deriv (1413)	coreprof%ne%time_deriv (vecflt_type) (7.9.2.1.14)
codeparam (1413)	coreprof%ne%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%ne%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%ne%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%ne%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%ne%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%ne%codeparam%output_flag (integer) (7.9.2.1.3)
ni (1359)	coreprof%ni (corefieldion) (7.9.2.1.80)
value (1414)	coreprof%ni%value (matflt_type) (7.9.2.1.12)
derivative (1414)	coreprof%ni%derivative (matflt_type) (7.9.2.1.12)
source (1414)	coreprof%ni%source (vecstring_type) (7.9.2.1.16)
flag (1414)	coreprof%ni%flag (vecint_type) (7.9.2.1.15)
boundary (1414)	coreprof%ni%boundary (boundaryion) (7.9.2.1.71)
value (1405)	coreprof%ni%boundary%value (matflt_type) (7.9.2.1.12)
source (1405)	coreprof%ni%boundary%source (vecstring_type) (7.9.2.1.16)
type (1405)	coreprof%ni%boundary%type (vecint_type) (7.9.2.1.15)
rho_tor (1405)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.2.1.14)
source_term (1414)	coreprof%ni%source_term (sourceion) (7.9.2.1.275)

value (1609)	coreprof%ni%source_term%value (matflt_type) (7.9.2.1.12)
integral (1609)	coreprof%ni%source_term%integral (matflt_type) (7.9.2.1.12)
source (1609)	coreprof%ni%source_term%source (vecstring_type) (7.9.2.1.16)
transp_coef (1414)	coreprof%ni%transp_coef (coretransion) (7.9.2.1.89)
diff (1423)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.2.1.12)
vconv (1423)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.2.1.12)
source (1423)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.2.1.16)
flux (1414)	coreprof%ni%flux (fluxion) (7.9.2.1.137)
flux_dv (1471)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.2.1.12)
flux_interp (1471)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.2.1.12)
time_deriv (1414)	coreprof%ni%time_deriv (matflt_type) (7.9.2.1.12)
codeparam (1414)	coreprof%ni%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%ni%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%ni%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%ni%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%ni%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%ni%codeparam%output_flag (integer) (7.9.2.1.3)
vtor (1359)	coreprof%vtor (corefieldion) (7.9.2.1.80)
value (1414)	coreprof%vtor%value (matflt_type) (7.9.2.1.12)
derivative (1414)	coreprof%vtor%derivative (matflt_type) (7.9.2.1.12)
source (1414)	coreprof%vtor%source (vecstring_type) (7.9.2.1.16)
flag (1414)	coreprof%vtor%flag (vecint_type) (7.9.2.1.15)
boundary (1414)	coreprof%vtor%boundary (boundaryion) (7.9.2.1.71)
value (1405)	coreprof%vtor%boundary%value (matflt_type) (7.9.2.1.12)
source (1405)	coreprof%vtor%boundary%source (vecstring_type) (7.9.2.1.16)
type (1405)	coreprof%vtor%boundary%type (vecint_type) (7.9.2.1.15)
rho_tor (1405)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.2.1.14)
source_term (1414)	coreprof%vtor%source_term (sourceion) (7.9.2.1.275)
value (1609)	coreprof%vtor%source_term%value (matflt_type) (7.9.2.1.12)
integral (1609)	coreprof%vtor%source_term%integral (matflt_type) (7.9.2.1.12)
source (1609)	coreprof%vtor%source_term%source (vecstring_type) (7.9.2.1.16)
transp_coef (1414)	coreprof%vtor%transp_coef (coretransion) (7.9.2.1.89)
diff (1423)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.2.1.12)
vconv (1423)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.2.1.12)
source (1423)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.2.1.16)
flux (1414)	coreprof%vtor%flux (fluxion) (7.9.2.1.137)
flux_dv (1471)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.2.1.12)
flux_interp (1471)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.2.1.12)
time_deriv (1414)	coreprof%vtor%time_deriv (matflt_type) (7.9.2.1.12)
codeparam (1414)	coreprof%vtor%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%vtor%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%vtor%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%vtor%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%vtor%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%vtor%codeparam%output_flag (integer) (7.9.2.1.3)
profiles1d (1359)	coreprof%profiles1d (profiles1d) (7.9.2.1.198)
pe (1532)	coreprof%profiles1d%pe (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%pe%source (string) (7.9.2.1.4)
pi (1532)	coreprof%profiles1d%pi (coreprofion) (7.9.2.1.86)
value (1420)	coreprof%profiles1d%pi%value (matflt_type) (7.9.2.1.12)
source (1420)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.2.1.16)
pr_th (1532)	coreprof%profiles1d%pr_th (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%pr_th%source (string) (7.9.2.1.4)
pr_perp (1532)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%pr_perp%source (string) (7.9.2.1.4)
pr_parallel (1532)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%pr_parallel%source (string) (7.9.2.1.4)

jtot (1532)	coreprof%profiles1d%jtot (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%jtot%source (string) (7.9.2.1.4)
jni (1532)	coreprof%profiles1d%jni (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%jni%source (string) (7.9.2.1.4)
joh (1532)	coreprof%profiles1d%joh (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%joh%source (string) (7.9.2.1.4)
vloop (1532)	coreprof%profiles1d%vloop (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%vloop%source (string) (7.9.2.1.4)
sigmapar (1532)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%sigmapar%source (string) (7.9.2.1.4)
qoh (1532)	coreprof%profiles1d%qoh (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%qoh%source (string) (7.9.2.1.4)
eparallel (1532)	coreprof%profiles1d%eparallel (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%eparallel%source (string) (7.9.2.1.4)
e_b (1532)	coreprof%profiles1d%e_b (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%e_b%source (string) (7.9.2.1.4)
q (1532)	coreprof%profiles1d%q (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%q%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%q%source (string) (7.9.2.1.4)
shear (1532)	coreprof%profiles1d%shear (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%shear%source (string) (7.9.2.1.4)
ns (1532)	coreprof%profiles1d%ns (coreprofion) (7.9.2.1.86)
value (1420)	coreprof%profiles1d%ns%value (matflt_type) (7.9.2.1.12)
source (1420)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.2.1.16)
mtor (1532)	coreprof%profiles1d%mtor (coreprofion) (7.9.2.1.86)
value (1420)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.2.1.12)
source (1420)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.2.1.16)
wtor (1532)	coreprof%profiles1d%wtor (coreprofion) (7.9.2.1.86)
value (1420)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.2.1.12)
source (1420)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.2.1.16)
zeff (1532)	coreprof%profiles1d%zeff (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%zeff%source (string) (7.9.2.1.4)
bpol (1532)	coreprof%profiles1d%bpol (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%bpol%source (string) (7.9.2.1.4)
dpsidt (1532)	coreprof%profiles1d%dpsidt (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%dpsidt%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%dpsidt%source (string) (7.9.2.1.4)
dpsidt_phi (1532)	coreprof%profiles1d%dpsidt_phi (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%dpsidt_phi%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%dpsidt_phi%source (string) (7.9.2.1.4)
dvprimedt (1532)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.2.1.85)
value (1419)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.2.1.14)
source (1419)	coreprof%profiles1d%dvprimedt%source (string) (7.9.2.1.4)
globalparam (1359)	coreprof%globalparam (globalparam) (7.9.2.1.141)
current_tot (1475)	coreprof%globalparam%current_tot (float) (7.9.2.1.2)
current_bnd (1475)	coreprof%globalparam%current_bnd (float) (7.9.2.1.2)
current_ni (1475)	coreprof%globalparam%current_ni (float) (7.9.2.1.2)
vloop (1475)	coreprof%globalparam%vloop (float) (7.9.2.1.2)
li (1475)	coreprof%globalparam%li (float) (7.9.2.1.2)
beta_tor (1475)	coreprof%globalparam%beta_tor (float) (7.9.2.1.2)

beta_normal (1475)	coreprof%globalparam%beta_normal (float) (7.9.2.1.2)
beta_pol (1475)	coreprof%globalparam%beta_pol (float) (7.9.2.1.2)
w_dia (1475)	coreprof%globalparam%w_dia (float) (7.9.2.1.2)
codeparam (1359)	coreprof%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coreprof%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coreprof%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coreprof%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coreprof%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coreprof%codeparam%output_flag (integer) (7.9.2.1.3)
time (1359)	coreprof%time (float) (7.9.2.1.2)

7.9.2.2.8 coresource

datainfo (1360)	coresource%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coresource%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coresource%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coresource%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coresource%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coresource%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coresource%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coresource%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coresource%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coresource%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coresource%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coresource%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coresource%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coresource%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coresource%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coresource%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coresource%datainfo%putinfo%rights (string) (7.9.2.1.4)
rho_tor (1360)	coresource%rho_tor (vecflt_type) (7.9.2.1.14)
rho_tor_norm (1360)	coresource%rho_tor_norm (vecflt_type) (7.9.2.1.14)
composition (1360)	coresource%composition (composition) (7.9.2.1.76)
amn (1410)	coresource%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	coresource%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	coresource%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	coresource%composition%imp_flag (vecint_type) (7.9.2.1.15)
toroid_field (1360)	coresource%toroid_field (b0r0) (7.9.2.1.63)
r0 (1397)	coresource%toroid_field%r0 (float) (7.9.2.1.2)
b0 (1397)	coresource%toroid_field%b0 (float) (7.9.2.1.2)
j (1360)	coresource%j (vecflt_type) (7.9.2.1.14)
sigma (1360)	coresource%sigma (vecflt_type) (7.9.2.1.14)
si (1360)	coresource%si (source_ion) (7.9.2.1.271)
exp (1605)	coresource%si%exp (matflt_type) (7.9.2.1.12)
imp (1605)	coresource%si%imp (matflt_type) (7.9.2.1.12)
se (1360)	coresource%se (source_el) (7.9.2.1.269)
exp (1603)	coresource%se%exp (vecflt_type) (7.9.2.1.14)
imp (1603)	coresource%se%imp (vecflt_type) (7.9.2.1.14)
sz (1360)	coresource%sz (source_imp) (7.9.2.1.270)
exp (1604)	coresource%sz%exp (array3dflt_type) (7.9.2.1.6)
imp (1604)	coresource%sz%imp (array3dflt_type) (7.9.2.1.6)
qi (1360)	coresource%qi (source_ion) (7.9.2.1.271)
exp (1605)	coresource%qi%exp (matflt_type) (7.9.2.1.12)
imp (1605)	coresource%qi%imp (matflt_type) (7.9.2.1.12)
qe (1360)	coresource%qe (source_el) (7.9.2.1.269)
exp (1603)	coresource%qe%exp (vecflt_type) (7.9.2.1.14)
imp (1603)	coresource%qe%imp (vecflt_type) (7.9.2.1.14)
qz (1360)	coresource%qz (source_imp) (7.9.2.1.270)
exp (1604)	coresource%qz%exp (array3dflt_type) (7.9.2.1.6)
imp (1604)	coresource%qz%imp (array3dflt_type) (7.9.2.1.6)
ui (1360)	coresource%ui (source_ion) (7.9.2.1.271)

exp (1605)	coresource%ui%exp (matflt_type) (7.9.2.1.12)
imp (1605)	coresource%ui%imp (matflt_type) (7.9.2.1.12)
codeparam (1360)	coresource%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coresource%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coresource%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coresource%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coresource%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coresource%codeparam%output_flag (integer) (7.9.2.1.3)
time (1360)	coresource%time (float) (7.9.2.1.2)

7.9.2.2.9 coretransp

datainfo (1361)	coretransp%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	coretransp%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	coretransp%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	coretransp%datainfo%source (string) (7.9.2.1.4)
comment (1426)	coretransp%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	coretransp%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	coretransp%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	coretransp%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	coretransp%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	coretransp%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	coretransp%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	coretransp%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	coretransp%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	coretransp%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	coretransp%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	coretransp%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	coretransp%datainfo%putinfo%rights (string) (7.9.2.1.4)
composition (1361)	coretransp%composition (composition) (7.9.2.1.76)
amn (1410)	coretransp%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	coretransp%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	coretransp%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	coretransp%composition%imp_flag (vecint_type) (7.9.2.1.15)
rho_tor_norm (1361)	coretransp%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1361)	coretransp%rho_tor (vecflt_type) (7.9.2.1.14)
sigma (1361)	coretransp%sigma (vecflt_type) (7.9.2.1.14)
ni_transp (1361)	coretransp%ni_transp (ni_transp) (7.9.2.1.177)
diff_eff (1511)	coretransp%ni_transp%diff_eff (array3dflt_type) (7.9.2.1.6)
vconv_eff (1511)	coretransp%ni_transp%vconv_eff (array3dflt_type) (7.9.2.1.6)
flux (1511)	coretransp%ni_transp%flux (matflt_type) (7.9.2.1.12)
off_diagonal (1511)	coretransp%ni_transp%off_diagonal (offdiagion) (7.9.2.1.179)
d_ni (1513)	coretransp%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.2.1.6)
d_ti (1513)	coretransp%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.2.1.6)
d_ne (1513)	coretransp%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.2.1.12)
d_te (1513)	coretransp%ni_transp%off_diagonal%d_te (matflt_type) (7.9.2.1.12)
d_epar (1513)	coretransp%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.2.1.12)
d_mtor (1513)	coretransp%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.2.1.12)
flag (1511)	coretransp%ni_transp%flag (integer) (7.9.2.1.3)
ne_transp (1361)	coretransp%ne_transp (ne_transp) (7.9.2.1.175)
diff_eff (1509)	coretransp%ne_transp%diff_eff (matflt_type) (7.9.2.1.12)
vconv_eff (1509)	coretransp%ne_transp%vconv_eff (matflt_type) (7.9.2.1.12)
flux (1509)	coretransp%ne_transp%flux (vecflt_type) (7.9.2.1.14)
off_diagonal (1509)	coretransp%ne_transp%off_diagonal (offdiagel) (7.9.2.1.178)
d_ni (1512)	coretransp%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.2.1.12)
d_ti (1512)	coretransp%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.2.1.12)
d_ne (1512)	coretransp%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.2.1.14)
d_te (1512)	coretransp%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.2.1.14)
d_epar (1512)	coretransp%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.2.1.14)
d_mtor (1512)	coretransp%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.2.1.14)
flag (1509)	coretransp%ne_transp%flag (integer) (7.9.2.1.3)

nz_transp (1361)	coretransp%nz_transp (transcoefimp) (7.9.2.1.299)
diff_eff (1633)	coretransp%nz_transp%diff_eff (array3dflt_type) (7.9.2.1.6)
vconv_eff (1633)	coretransp%nz_transp%vconv_eff (array3dflt_type) (7.9.2.1.6)
exchange (1633)	coretransp%nz_transp%exchange (array3dflt_type) (7.9.2.1.6)
flux (1633)	coretransp%nz_transp%flux (array3dflt_type) (7.9.2.1.6)
flag (1633)	coretransp%nz_transp%flag (integer) (7.9.2.1.3)
ti_transp (1361)	coretransp%ti_transp (transcoefion) (7.9.2.1.300)
diff_eff (1634)	coretransp%ti_transp%diff_eff (matflt_type) (7.9.2.1.12)
vconv_eff (1634)	coretransp%ti_transp%vconv_eff (matflt_type) (7.9.2.1.12)
exchange (1634)	coretransp%ti_transp%exchange (matflt_type) (7.9.2.1.12)
qgi (1634)	coretransp%ti_transp%qgi (matflt_type) (7.9.2.1.12)
flux (1634)	coretransp%ti_transp%flux (matflt_type) (7.9.2.1.12)
off_diagonal (1634)	coretransp%ti_transp%off_diagonal (offdiagion) (7.9.2.1.179)
d_ni (1513)	coretransp%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.2.1.6)
d_ti (1513)	coretransp%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.2.1.6)
d_ne (1513)	coretransp%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.2.1.12)
d_te (1513)	coretransp%ti_transp%off_diagonal%d_te (matflt_type) (7.9.2.1.12)
d_epar (1513)	coretransp%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.2.1.12)
d_mtor (1513)	coretransp%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.2.1.12)
flag (1634)	coretransp%ti_transp%flag (integer) (7.9.2.1.3)
te_transp (1361)	coretransp%te_transp (transcoefel) (7.9.2.1.298)
diff_eff (1632)	coretransp%te_transp%diff_eff (vecflt_type) (7.9.2.1.14)
vconv_eff (1632)	coretransp%te_transp%vconv_eff (vecflt_type) (7.9.2.1.14)
flux (1632)	coretransp%te_transp%flux (vecflt_type) (7.9.2.1.14)
off_diagonal (1632)	coretransp%te_transp%off_diagonal (offdiagel) (7.9.2.1.178)
d_ni (1512)	coretransp%te_transp%off_diagonal%d_ni (matflt_type) (7.9.2.1.12)
d_ti (1512)	coretransp%te_transp%off_diagonal%d_ti (matflt_type) (7.9.2.1.12)
d_ne (1512)	coretransp%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.2.1.14)
d_te (1512)	coretransp%te_transp%off_diagonal%d_te (vecflt_type) (7.9.2.1.14)
d_epar (1512)	coretransp%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.2.1.14)
d_mtor (1512)	coretransp%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.2.1.14)
flag (1632)	coretransp%te_transp%flag (integer) (7.9.2.1.3)
tz_transp (1361)	coretransp%tz_transp (transcoefimp) (7.9.2.1.299)
diff_eff (1633)	coretransp%tz_transp%diff_eff (array3dflt_type) (7.9.2.1.6)
vconv_eff (1633)	coretransp%tz_transp%vconv_eff (array3dflt_type) (7.9.2.1.6)
exchange (1633)	coretransp%tz_transp%exchange (array3dflt_type) (7.9.2.1.6)
flux (1633)	coretransp%tz_transp%flux (array3dflt_type) (7.9.2.1.6)
flag (1633)	coretransp%tz_transp%flag (integer) (7.9.2.1.3)
vtor_transp (1361)	coretransp%vtor_transp (transcoefvtor) (7.9.2.1.301)
diff_eff (1635)	coretransp%vtor_transp%diff_eff (matflt_type) (7.9.2.1.12)
vconv_eff (1635)	coretransp%vtor_transp%vconv_eff (matflt_type) (7.9.2.1.12)
flux (1635)	coretransp%vtor_transp%flux (matflt_type) (7.9.2.1.12)
off_diagonal (1635)	coretransp%vtor_transp%off_diagonal (offdiagion) (7.9.2.1.179)
d_ni (1513)	coretransp%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.2.1.6)
d_ti (1513)	coretransp%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.2.1.6)
d_ne (1513)	coretransp%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.2.1.12)
d_te (1513)	coretransp%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.2.1.12)
d_epar (1513)	coretransp%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.2.1.12)
d_mtor (1513)	coretransp%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.2.1.12)
flag (1635)	coretransp%vtor_transp%flag (integer) (7.9.2.1.3)
codeparam (1361)	coretransp%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	coretransp%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	coretransp%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	coretransp%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	coretransp%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	coretransp%codeparam%output_flag (integer) (7.9.2.1.3)
time (1361)	coretransp%time (float) (7.9.2.1.2)

7.9.2.2.10 cxdiag

datainfo (1362)	cxdiag%datainfo (datainfo) (7.9.2.1.92)

dataprovider (1426)	cxdiag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	cxdiag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	cxdiag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	cxdiag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	cxdiag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	cxdiag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	cxdiag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	cxdiag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	cxdiag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	cxdiag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	cxdiag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	cxdiag%datainfo%putinfo%rights (string) (7.9.2.1.4)
setup (1362)	cxdiag%setup (cxsetup) (7.9.2.1.91)
position (1425)	cxdiag%setup%position (rzphi1Dexp) (7.9.2.1.236)
r (1570)	cxdiag%setup%position%r (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%setup%position%r%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.2.1.14)
z (1570)	cxdiag%setup%position%z (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%setup%position%z%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.2.1.14)
phi (1570)	cxdiag%setup%position%phi (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.2.1.14)
measure (1362)	cxdiag%measure (cxmeasure) (7.9.2.1.90)
ti (1424)	cxdiag%measure%ti (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%measure%ti%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.2.1.14)
vtor (1424)	cxdiag%measure%vtor (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%measure%vtor%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.2.1.14)
vpol (1424)	cxdiag%measure%vpol (exp1D) (7.9.2.1.130)
value (1464)	cxdiag%measure%vpol%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.2.1.14)
time (1362)	cxdiag%time (float) (7.9.2.1.2)

7.9.2.2.11 distribution

datainfo (1363)	distribution%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	distribution%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	distribution%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	distribution%datainfo%source (string) (7.9.2.1.4)
comment (1426)	distribution%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	distribution%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	distribution%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	distribution%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	distribution%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	distribution%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	distribution%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	distribution%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	distribution%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	distribution%datainfo%putinfo%putmethod (string) (7.9.2.1.4)

putaccess (1538)	distribution%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	distribution%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	distribution%datainfo%putinfo%rights (string) (7.9.2.1.4)
composition (1363)	distribution%composition (composition) (7.9.2.1.76)
amn (1410)	distribution%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	distribution%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	distribution%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	distribution%composition%imp_flag (vecint_type) (7.9.2.1.15)
calc_spec (1363)	distribution%calc_spec (vecint_type) (7.9.2.1.15)
nucl_reac (1363)	distribution%nucl_reac (dist_nucl_reac) (7.9.2.1.103)
nreacs (1437)	distribution%nucl_reac%nreacs (vecint_type) (7.9.2.1.15)
point_reac (1437)	distribution%nucl_reac%point_reac (matint_type) (7.9.2.1.13)
id_reac (1437)	distribution%nucl_reac%id_reac (matint_type) (7.9.2.1.13)
global_param (1363)	distribution%global_param (dist_glob) (7.9.2.1.99)
enrg (1433)	distribution%global_param%enrg (vecflt_type) (7.9.2.1.14)
enrg_para (1433)	distribution%global_param%enrg_para (vecflt_type) (7.9.2.1.14)
pow_coll_i (1433)	distribution%global_param%pow_coll_i (matflt_type) (7.9.2.1.12)
pow_coll_e (1433)	distribution%global_param%pow_coll_e (vecflt_type) (7.9.2.1.14)
therm_src (1433)	distribution%global_param%therm_src (dist_src_snk_tot) (7.9.2.1.115)
particles (1449)	distribution%global_param%therm_src%particles (vecflt_type) (7.9.2.1.14)
power (1449)	distribution%global_param%therm_src%power (vecflt_type) (7.9.2.1.14)
torque (1449)	distribution%global_param%therm_src%torque (vecflt_type) (7.9.2.1.14)
losses (1433)	distribution%global_param%losses (dist_glob_dist_losses) (7.9.2.1.100)
orb_loss (1434)	distribution%global_param%losses%orb_loss (dist_src_snk_tot) (7.9.2.1.115)
particles (1449)	distribution%global_param%losses%orb_loss%particles (vecflt_type) (7.9.2.1.14)
power (1449)	distribution%global_param%losses%orb_loss%power (vecflt_type) (7.9.2.1.14)
torque (1449)	distribution%global_param%losses%orb_loss%torque (vecflt_type) (7.9.2.1.14)
neutr_loss (1434)	distribution%global_param%losses%neutr_loss (dist_src_snk_tot) (7.9.2.1.115)
particles (1449)	distribution%global_param%losses%neutr_loss%particles (vecflt_type) (7.9.2.1.14)
power (1449)	distribution%global_param%losses%neutr_loss%power (vecflt_type) (7.9.2.1.14)
torque (1449)	distribution%global_param%losses%neutr_loss%torque (vecflt_type) (7.9.2.1.14)
cur_dr_tor (1433)	distribution%global_param%cur_dr_tor (vecflt_type) (7.9.2.1.14)
trq_i (1433)	distribution%global_param%trq_i (matflt_type) (7.9.2.1.12)
trq_e (1433)	distribution%global_param%trq_e (vecflt_type) (7.9.2.1.14)
trq_j_rxb (1433)	distribution%global_param%trq_j_rxb (vecflt_type) (7.9.2.1.14)
nucl_reac_th (1433)	distribution%global_param%nucl_reac_th (dist_nucl_reac_th) (7.9.2.1.105)
rate (1439)	distribution%global_param%nucl_reac_th%rate (matflt_type) (7.9.2.1.12)
power (1439)	distribution%global_param%nucl_reac_th%power (matflt_type) (7.9.2.1.12)
nucl_reac_sf (1433)	distribution%global_param%nucl_reac_sf (dist_nucl_reac_sf) (7.9.2.1.104)
rate (1438)	distribution%global_param%nucl_reac_sf%rate (vecflt_type) (7.9.2.1.14)
power (1438)	distribution%global_param%nucl_reac_sf%power (vecflt_type) (7.9.2.1.14)
profiles_1d (1363)	distribution%profiles_1d (dist_profiles) (7.9.2.1.113)
npsi (1447)	distribution%profiles_1d%npsi (vecint_type) (7.9.2.1.15)
rho_tor_norm (1447)	distribution%profiles_1d%rho_tor_norm (matflt_type) (7.9.2.1.12)
rho_tor (1447)	distribution%profiles_1d%rho_tor (matflt_type) (7.9.2.1.12)
psi (1447)	distribution%profiles_1d%psi (matflt_type) (7.9.2.1.12)
enrgd_tot (1447)	distribution%profiles_1d%enrgd_tot (matflt_type) (7.9.2.1.12)
enrgd_para (1447)	distribution%profiles_1d%enrgd_para (matflt_type) (7.9.2.1.12)
powd_coll_i (1447)	distribution%profiles_1d%powd_coll_i (array3dflt_type) (7.9.2.1.6)
powd_coll_e (1447)	distribution%profiles_1d%powd_coll_e (matflt_type) (7.9.2.1.12)
therm_srcd (1447)	distribution%profiles_1d%therm_srcd (dist_src_snk_surf) (7.9.2.1.114)
particlesd (1448)	distribution%profiles_1d%therm_srcd%particlesd (matflt_type) (7.9.2.1.12)
powerd (1448)	distribution%profiles_1d%therm_srcd%powerd (matflt_type) (7.9.2.1.12)
torqued (1448)	distribution%profiles_1d%therm_srcd%torqued (matflt_type) (7.9.2.1.12)
lossesd (1447)	distribution%profiles_1d%lossesd (dist_prof_surf_dist_losses) (7.9.2.1.107)
orb_loss (1441)	distribution%profiles_1d%lossesd%orb_loss (dist_src_snk_surf) (7.9.2.1.114)
particlesd (1448)	distribution%profiles_1d%lossesd%orb_loss%particlesd (matflt_type) (7.9.2.1.12)
powerd (1448)	distribution%profiles_1d%lossesd%orb_loss%powerd (matflt_type) (7.9.2.1.12)
torqued (1448)	distribution%profiles_1d%lossesd%orb_loss%torqued (matflt_type) (7.9.2.1.12)
neutr_loss (1441)	distribution%profiles_1d%lossesd%neutr_loss (dist_src_snk_surf) (7.9.2.1.114)
particlesd (1448)	distribution%profiles_1d%lossesd%neutr_loss%particlesd (matflt_type) (7.9.2.1.12)

ndim3 (1435)	distribution%dist_func%f0%grid%ndim3 (vecint_type) (7.9.2.1.15)
jacobian (1435)	distribution%dist_func%f0%grid%jacobian (array4dflt_type) (7.9.2.1.8)
value (1431)	distribution%dist_func%f0%value (array4dflt_type) (7.9.2.1.8)
fullf (1432)	distribution%dist_func%fullf (dist_ff) (7.9.2.1.97)
grid_type (1431)	distribution%dist_func%fullf%grid_type (vecint_type) (7.9.2.1.15)
grid (1431)	distribution%dist_func%fullf%grid (dist_grid) (7.9.2.1.101)
dim1 (1435)	distribution%dist_func%fullf%grid%dim1 (matflt_type) (7.9.2.1.12)
ndim1 (1435)	distribution%dist_func%fullf%grid%ndim1 (vecint_type) (7.9.2.1.15)
dim2 (1435)	distribution%dist_func%fullf%grid%dim2 (matflt_type) (7.9.2.1.12)
ndim2 (1435)	distribution%dist_func%fullf%grid%ndim2 (vecint_type) (7.9.2.1.15)
dim3 (1435)	distribution%dist_func%fullf%grid%dim3 (matflt_type) (7.9.2.1.12)
ndim3 (1435)	distribution%dist_func%fullf%grid%ndim3 (vecint_type) (7.9.2.1.15)
jacobian (1435)	distribution%dist_func%fullf%grid%jacobian (array4dflt_type) (7.9.2.1.8)
value (1431)	distribution%dist_func%fullf%value (array4dflt_type) (7.9.2.1.8)
input_src (1363)	distribution%input_src (dist_input_src) (7.9.2.1.102)
particle_src (1436)	distribution%input_src%particle_src (dist_particle_src) (7.9.2.1.106)
total (1440)	distribution%input_src%particle_src%total (dist_src_snk_tot) (7.9.2.1.115)
particles (1449)	distribution%input_src%particle_src%total%particles (vecflt_type) (7.9.2.1.14)
power (1449)	distribution%input_src%particle_src%total%power (vecflt_type) (7.9.2.1.14)
torque (1449)	distribution%input_src%particle_src%total%torque (vecflt_type) (7.9.2.1.14)
volume_intgr (1440)	distribution%input_src%particle_src%volume_intgr (dist_src_snk_vol) (7.9.2.1.116)
particles (1450)	distribution%input_src%particle_src%volume_intgr%particles (matflt_type) (7.9.2.1.12)
power (1450)	distribution%input_src%particle_src%volume_intgr%power (matflt_type) (7.9.2.1.12)
torque (1450)	distribution%input_src%particle_src%volume_intgr%torque (matflt_type) (7.9.2.1.12)
flux_surf_av (1440)	distribution%input_src%particle_src%flux_surf_av (dist_src_snk_surf) (7.9.2.1.114)
particlesd (1448)	distribution%input_src%particle_src%flux_surf_av%particlesd (matflt_type) (7.9.2.1.12)
powerd (1448)	distribution%input_src%particle_src%flux_surf_av%powerd (matflt_type) (7.9.2.1.12)
torqued (1448)	distribution%input_src%particle_src%flux_surf_av%torqued (matflt_type) (7.9.2.1.12)
wave_src (1436)	distribution%input_src%wave_src (dist_wave_src) (7.9.2.1.118)
type (1452)	distribution%input_src%wave_src%type (vecstring_type) (7.9.2.1.16)
wave_power (1452)	distribution%input_src%wave_src%wave_power (vecflt_type) (7.9.2.1.14)
wave_powerd (1452)	distribution%input_src%wave_src%wave_powerd (matflt_type) (7.9.2.1.12)
codeparam (1363)	distribution%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	distribution%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	distribution%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	distribution%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	distribution%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	distribution%codeparam%output_flag (integer) (7.9.2.1.3)
time (1363)	distribution%time (float) (7.9.2.1.2)

7.9.2.2.12 distsource

datainfo (1364)	distsource%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	distsource%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	distsource%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	distsource%datainfo%source (string) (7.9.2.1.4)
comment (1426)	distsource%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	distsource%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	distsource%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	distsource%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	distsource%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	distsource%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	distsource%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	distsource%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	distsource%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	distsource%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	distsource%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	distsource%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	distsource%datainfo%putinfo%rights (string) (7.9.2.1.4)
composition (1364)	distsource%composition (composition) (7.9.2.1.76)
amn (1410)	distsource%composition%amn (vecflt_type) (7.9.2.1.14)

zn (1410)	distsource%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	distsource%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	distsource%composition%imp_flag (vecint_type) (7.9.2.1.15)
src_spec (1364)	distsource%src_spec (vecint_type) (7.9.2.1.15)
global_param (1364)	distsource%global_param (distsource_global_param) (7.9.2.1.119)
src_pow (1453)	distsource%global_param%src_pow (vecflt_type) (7.9.2.1.14)
src_rate (1453)	distsource%global_param%src_rate (vecflt_type) (7.9.2.1.14)
profiles_1d (1364)	distsource%profiles_1d (distsource_profiles_1d) (7.9.2.1.120)
npsi (1454)	distsource%profiles_1d%npsi (vecint_type) (7.9.2.1.15)
rho_tor_norm (1454)	distsource%profiles_1d%rho_tor_norm (matflt_type) (7.9.2.1.12)
rho_tor (1454)	distsource%profiles_1d%rho_tor (matflt_type) (7.9.2.1.12)
psi (1454)	distsource%profiles_1d%psi (matflt_type) (7.9.2.1.12)
pow_den (1454)	distsource%profiles_1d%pow_den (matflt_type) (7.9.2.1.12)
src_rate (1454)	distsource%profiles_1d%src_rate (matflt_type) (7.9.2.1.12)
source_4d (1364)	distsource%source_4d (source_4d) (7.9.2.1.268)
gyrosrc_type (1602)	distsource%source_4d%gyrosrc_type (vecint_type) (7.9.2.1.15)
grid_type (1602)	distsource%source_4d%grid_type (vecint_type) (7.9.2.1.15)
rect_grid (1602)	distsource%source_4d%rect_grid (distsource_rect_grid) (7.9.2.1.121)
ndim1 (1455)	distsource%source_4d%rect_grid%ndim1 (vecint_type) (7.9.2.1.15)
ndim2 (1455)	distsource%source_4d%rect_grid%ndim2 (vecint_type) (7.9.2.1.15)
ndim3 (1455)	distsource%source_4d%rect_grid%ndim3 (vecint_type) (7.9.2.1.15)
ndim4 (1455)	distsource%source_4d%rect_grid%ndim4 (vecint_type) (7.9.2.1.15)
dim1 (1455)	distsource%source_4d%rect_grid%dim1 (matflt_type) (7.9.2.1.12)
dim2 (1455)	distsource%source_4d%rect_grid%dim2 (matflt_type) (7.9.2.1.12)
dim3 (1455)	distsource%source_4d%rect_grid%dim3 (matflt_type) (7.9.2.1.12)
dim4 (1455)	distsource%source_4d%rect_grid%dim4 (matflt_type) (7.9.2.1.12)
jacobian (1455)	distsource%source_4d%rect_grid%jacobian (array5dflt_type) (7.9.2.1.9)
source (1602)	distsource%source_4d%source (array5dflt_type) (7.9.2.1.9)
source_tp (1364)	distsource%source_tp (source_tp) (7.9.2.1.272)
n_particles (1606)	distsource%source_tp%n_particles (vecint_type) (7.9.2.1.15)
var_type (1606)	distsource%source_tp%var_type (integer) (7.9.2.1.3)
var1 (1606)	distsource%source_tp%var1 (matflt_type) (7.9.2.1.12)
var2 (1606)	distsource%source_tp%var2 (matflt_type) (7.9.2.1.12)
var3 (1606)	distsource%source_tp%var3 (matflt_type) (7.9.2.1.12)
var4 (1606)	distsource%source_tp%var4 (matflt_type) (7.9.2.1.12)
var5 (1606)	distsource%source_tp%var5 (matflt_type) (7.9.2.1.12)
var6 (1606)	distsource%source_tp%var6 (matflt_type) (7.9.2.1.12)
weight (1606)	distsource%source_tp%weight (matflt_type) (7.9.2.1.12)
codeparam (1364)	distsource%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	distsource%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	distsource%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	distsource%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	distsource%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	distsource%codeparam%output_flag (integer) (7.9.2.1.3)
time (1364)	distsource%time (float) (7.9.2.1.2)

7.9.2.2.13 ecediag

datainfo (1365)	ecediag%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	ecediag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	ecediag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	ecediag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	ecediag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	ecediag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	ecediag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	ecediag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	ecediag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	ecediag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	ecediag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	ecediag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	ecediag%datainfo%putinfo (putinfo) (7.9.2.1.204)

putmethod (1538)	ecediag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	ecediag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	ecediag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	ecediag%datainfo%putinfo%rights (string) (7.9.2.1.4)
setup (1365)	ecediag%setup (ecesetup) (7.9.2.1.123)
frequency (1457)	ecediag%setup%frequency (vecflt_type) (7.9.2.1.14)
position (1457)	ecediag%setup%position (rzphi1Dexp) (7.9.2.1.236)
r (1570)	ecediag%setup%position%r (exp1D) (7.9.2.1.130)
value (1464)	ecediag%setup%position%r%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ecediag%setup%position%r%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ecediag%setup%position%r%relerror (vecflt_type) (7.9.2.1.14)
z (1570)	ecediag%setup%position%z (exp1D) (7.9.2.1.130)
value (1464)	ecediag%setup%position%z%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ecediag%setup%position%z%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ecediag%setup%position%z%relerror (vecflt_type) (7.9.2.1.14)
phi (1570)	ecediag%setup%position%phi (exp1D) (7.9.2.1.130)
value (1464)	ecediag%setup%position%phi%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ecediag%setup%position%phi%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ecediag%setup%position%phi%relerror (vecflt_type) (7.9.2.1.14)
measure (1365)	ecediag%measure (ecemeasure) (7.9.2.1.122)
te (1456)	ecediag%measure%te (exp1D) (7.9.2.1.130)
value (1464)	ecediag%measure%te%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ecediag%measure%te%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ecediag%measure%te%relerror (vecflt_type) (7.9.2.1.14)
time (1365)	ecediag%time (float) (7.9.2.1.2)

7.9.2.2.14 edge

datainfo (1366)	edge%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	edge%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	edge%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	edge%datainfo%source (string) (7.9.2.1.4)
comment (1426)	edge%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	edge%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	edge%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	edge%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	edge%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	edge%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	edge%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	edge%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	edge%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	edge%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	edge%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	edge%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	edge%datainfo%putinfo%rights (string) (7.9.2.1.4)
grid (1366)	edge%grid (grid_full) (7.9.2.1.150)
spaces (1484)	edge%grid%spaces(:) (grid_space) (7.9.2.1.153)
type_coord (1487)	edge%grid%spaces(:)%type_coord (vecint_type) (7.9.2.1.15)
node_value (1487)	edge%grid%spaces(:)%node_value (matflt_type) (7.9.2.1.12)
alter_coord (1487)	edge%grid%spaces(:)%alter_coord (alter_coord) (7.9.2.1.56)
type_coord (1390)	edge%grid%spaces(:)%alter_coord%type_coord (vecint_type) (7.9.2.1.15)
node_value (1390)	edge%grid%spaces(:)%alter_coord%node_value (matflt_type) (7.9.2.1.12)
nobject (1487)	edge%grid%spaces(:)%nobject (vecint_type) (7.9.2.1.15)
nobject_bou (1487)	edge%grid%spaces(:)%nobject_bou (vecint_type) (7.9.2.1.15)
neighborside (1487)	edge%grid%spaces(:)%neighborside (vecint_type) (7.9.2.1.15)
objdef (1487)	edge%grid%spaces(:)%objdef (array3dint_type) (7.9.2.1.7)
neighbors (1487)	edge%grid%spaces(:)%neighbors (array3dint_type) (7.9.2.1.7)
properties (1487)	edge%grid%spaces(:)%properties (properties) (7.9.2.1.202)
alias (1536)	edge%grid%spaces(:)%properties%alias (vecint_type) (7.9.2.1.15)
type (1536)	edge%grid%spaces(:)%properties%type (vecint_type) (7.9.2.1.15)
is_x (1536)	edge%grid%spaces(:)%properties%is_x (vecint_type) (7.9.2.1.15)

node_connect (1536)	edge%grid%spaces(:)%properties%node_connect (string) (7.9.2.1.4)
bezier (1536)	edge%grid%spaces(:)%properties%bezier (bezier) (7.9.2.1.66)
u (1400)	edge%grid%spaces(:)%properties%bezier%u (matflt_type) (7.9.2.1.12)
v (1400)	edge%grid%spaces(:)%properties%bezier%v (matflt_type) (7.9.2.1.12)
w (1400)	edge%grid%spaces(:)%properties%bezier%w (matflt_type) (7.9.2.1.12)
metric (1484)	edge%grid%metric (vecflt_type) (7.9.2.1.14)
desc_impur (1366)	edge%desc_impur (desc_impur) (7.9.2.1.93)
amn (1427)	edge%desc_impur%amn (vecflt_type) (7.9.2.1.14)
zn (1427)	edge%desc_impur%zn (vecint_type) (7.9.2.1.15)
i_ion (1427)	edge%desc_impur%i_ion (vecint_type) (7.9.2.1.15)
nzimp (1427)	edge%desc_impur%nzimp (vecint_type) (7.9.2.1.15)
zmin (1427)	edge%desc_impur%zmin (matint_type) (7.9.2.1.13)
zmax (1427)	edge%desc_impur%zmax (matint_type) (7.9.2.1.13)
fluid (1366)	edge%fluid (grid_fluid) (7.9.2.1.145)
ne (1479)	edge%fluid%ne (grid_ne) (7.9.2.1.151)
main_field (1485)	edge%fluid%ne%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%ne%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%ne%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%ne%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1485)	edge%fluid%ne%fluxes (grid_fluxes_part_el) (7.9.2.1.148)
gridlink (1482)	edge%fluid%ne%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1482)	edge%fluid%ne%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1482)	edge%fluid%ne%fluxes%flux_par (vecflt_type) (7.9.2.1.14)
flux_dia (1482)	edge%fluid%ne%fluxes%flux_dia (vecflt_type) (7.9.2.1.14)
flux_rad (1482)	edge%fluid%ne%fluxes%flux_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1485)	edge%fluid%ne%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%ne%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%ne%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%ne%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)
diff_rad (1490)	edge%fluid%ne%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
te (1479)	edge%fluid%te (grid_te) (7.9.2.1.154)
main_field (1488)	edge%fluid%te%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%te%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%te%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%te%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1488)	edge%fluid%te%fluxes (grid_fluxes_heat_el) (7.9.2.1.146)
gridlink (1480)	edge%fluid%te%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1480)	edge%fluid%te%fluxes%pointer (matint_type) (7.9.2.1.13)
heat_par (1480)	edge%fluid%te%fluxes%heat_par (vecflt_type) (7.9.2.1.14)
heat_dia (1480)	edge%fluid%te%fluxes%heat_dia (vecflt_type) (7.9.2.1.14)
heat_rad (1480)	edge%fluid%te%fluxes%heat_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1488)	edge%fluid%te%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%te%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%te%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%te%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)
diff_rad (1490)	edge%fluid%te%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
te_perp (1479)	edge%fluid%te_perp (grid_te) (7.9.2.1.154)
main_field (1488)	edge%fluid%te_perp%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%te_perp%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%te_perp%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%te_perp%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1488)	edge%fluid%te_perp%fluxes (grid_fluxes_heat_el) (7.9.2.1.146)
gridlink (1480)	edge%fluid%te_perp%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1480)	edge%fluid%te_perp%fluxes%pointer (matint_type) (7.9.2.1.13)
heat_par (1480)	edge%fluid%te_perp%fluxes%heat_par (vecflt_type) (7.9.2.1.14)
heat_dia (1480)	edge%fluid%te_perp%fluxes%heat_dia (vecflt_type) (7.9.2.1.14)
heat_rad (1480)	edge%fluid%te_perp%fluxes%heat_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1488)	edge%fluid%te_perp%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%te_perp%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%te_perp%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%te_perp%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)

diff_rad (1490)	edge%fluid%te_perp%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
ve_dia (1479)	edge%fluid%ve_dia (grid_ne) (7.9.2.1.151)
main_field (1485)	edge%fluid%ve_dia%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%ve_dia%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%ve_dia%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%ve_dia%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1485)	edge%fluid%ve_dia%fluxes (grid_fluxes_part_el) (7.9.2.1.148)
gridlink (1482)	edge%fluid%ve_dia%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1482)	edge%fluid%ve_dia%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1482)	edge%fluid%ve_dia%fluxes%flux_par (vecflt_type) (7.9.2.1.14)
flux_dia (1482)	edge%fluid%ve_dia%fluxes%flux_dia (vecflt_type) (7.9.2.1.14)
flux_rad (1482)	edge%fluid%ve_dia%fluxes%flux_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1485)	edge%fluid%ve_dia%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%ve_dia%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%ve_dia%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%ve_dia%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)
diff_rad (1490)	edge%fluid%ve_dia%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
ve_par (1479)	edge%fluid%ve_par (grid_ne) (7.9.2.1.151)
main_field (1485)	edge%fluid%ve_par%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%ve_par%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%ve_par%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%ve_par%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1485)	edge%fluid%ve_par%fluxes (grid_fluxes_part_el) (7.9.2.1.148)
gridlink (1482)	edge%fluid%ve_par%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1482)	edge%fluid%ve_par%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1482)	edge%fluid%ve_par%fluxes%flux_par (vecflt_type) (7.9.2.1.14)
flux_dia (1482)	edge%fluid%ve_par%fluxes%flux_dia (vecflt_type) (7.9.2.1.14)
flux_rad (1482)	edge%fluid%ve_par%fluxes%flux_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1485)	edge%fluid%ve_par%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%ve_par%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%ve_par%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%ve_par%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)
diff_rad (1490)	edge%fluid%ve_par%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
ve_rad (1479)	edge%fluid%ve_rad (grid_ne) (7.9.2.1.151)
main_field (1485)	edge%fluid%ve_rad%main_field (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%ve_rad%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%ve_rad%main_field%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%ve_rad%main_field%value (vecflt_type) (7.9.2.1.14)
fluxes (1485)	edge%fluid%ve_rad%fluxes (grid_fluxes_part_el) (7.9.2.1.148)
gridlink (1482)	edge%fluid%ve_rad%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1482)	edge%fluid%ve_rad%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1482)	edge%fluid%ve_rad%fluxes%flux_par (vecflt_type) (7.9.2.1.14)
flux_dia (1482)	edge%fluid%ve_rad%fluxes%flux_dia (vecflt_type) (7.9.2.1.14)
flux_rad (1482)	edge%fluid%ve_rad%fluxes%flux_rad (vecflt_type) (7.9.2.1.14)
transp_coef (1485)	edge%fluid%ve_rad%transp_coef (grid_transp_coef_el) (7.9.2.1.156)
gridlink (1490)	edge%fluid%ve_rad%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1490)	edge%fluid%ve_rad%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1490)	edge%fluid%ve_rad%transp_coef%diff_dia (vecflt_type) (7.9.2.1.14)
diff_rad (1490)	edge%fluid%ve_rad%transp_coef%diff_rad (vecflt_type) (7.9.2.1.14)
ni (1479)	edge%fluid%ni (grid_ni) (7.9.2.1.152)
main_field (1486)	edge%fluid%ni%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%ni%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%ni%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%ni%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1486)	edge%fluid%ni%fluxes (grid_fluxes_part_ion) (7.9.2.1.149)
gridlink (1483)	edge%fluid%ni%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1483)	edge%fluid%ni%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1483)	edge%fluid%ni%fluxes%flux_par (matflt_type) (7.9.2.1.12)
flux_dia (1483)	edge%fluid%ni%fluxes%flux_dia (matflt_type) (7.9.2.1.12)
flux_rad (1483)	edge%fluid%ni%fluxes%flux_rad (matflt_type) (7.9.2.1.12)
transp_coef (1486)	edge%fluid%ni%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)

gridlink (1491)	edge%fluid%ni%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%ni%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%ni%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%ni%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
ti (1479)	edge%fluid%ti (grid_ti) (7.9.2.1.155)
main_field (1489)	edge%fluid%ti%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%ti%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%ti%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%ti%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1489)	edge%fluid%ti%fluxes (grid_fluxes_heat_ion) (7.9.2.1.147)
gridlink (1481)	edge%fluid%ti%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1481)	edge%fluid%ti%fluxes%pointer (matint_type) (7.9.2.1.13)
heat_par (1481)	edge%fluid%ti%fluxes%heat_par (matflt_type) (7.9.2.1.12)
heat_dia (1481)	edge%fluid%ti%fluxes%heat_dia (matflt_type) (7.9.2.1.12)
heat_rad (1481)	edge%fluid%ti%fluxes%heat_rad (matflt_type) (7.9.2.1.12)
transp_coef (1489)	edge%fluid%ti%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)
gridlink (1491)	edge%fluid%ti%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%ti%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%ti%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%ti%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
ti_perp (1479)	edge%fluid%ti_perp (grid_ti) (7.9.2.1.155)
main_field (1489)	edge%fluid%ti_perp%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%ti_perp%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%ti_perp%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%ti_perp%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1489)	edge%fluid%ti_perp%fluxes (grid_fluxes_heat_ion) (7.9.2.1.147)
gridlink (1481)	edge%fluid%ti_perp%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1481)	edge%fluid%ti_perp%fluxes%pointer (matint_type) (7.9.2.1.13)
heat_par (1481)	edge%fluid%ti_perp%fluxes%heat_par (matflt_type) (7.9.2.1.12)
heat_dia (1481)	edge%fluid%ti_perp%fluxes%heat_dia (matflt_type) (7.9.2.1.12)
heat_rad (1481)	edge%fluid%ti_perp%fluxes%heat_rad (matflt_type) (7.9.2.1.12)
transp_coef (1489)	edge%fluid%ti_perp%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)
gridlink (1491)	edge%fluid%ti_perp%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%ti_perp%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%ti_perp%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%ti_perp%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
vi_dia (1479)	edge%fluid%vi_dia (grid_ni) (7.9.2.1.152)
main_field (1486)	edge%fluid%vi_dia%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%vi_dia%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%vi_dia%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%vi_dia%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1486)	edge%fluid%vi_dia%fluxes (grid_fluxes_part_ion) (7.9.2.1.149)
gridlink (1483)	edge%fluid%vi_dia%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1483)	edge%fluid%vi_dia%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1483)	edge%fluid%vi_dia%fluxes%flux_par (matflt_type) (7.9.2.1.12)
flux_dia (1483)	edge%fluid%vi_dia%fluxes%flux_dia (matflt_type) (7.9.2.1.12)
flux_rad (1483)	edge%fluid%vi_dia%fluxes%flux_rad (matflt_type) (7.9.2.1.12)
transp_coef (1486)	edge%fluid%vi_dia%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)
gridlink (1491)	edge%fluid%vi_dia%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%vi_dia%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%vi_dia%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%vi_dia%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
vi_par (1479)	edge%fluid%vi_par (grid_ni) (7.9.2.1.152)
main_field (1486)	edge%fluid%vi_par%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%vi_par%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%vi_par%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%vi_par%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1486)	edge%fluid%vi_par%fluxes (grid_fluxes_part_ion) (7.9.2.1.149)
gridlink (1483)	edge%fluid%vi_par%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1483)	edge%fluid%vi_par%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1483)	edge%fluid%vi_par%fluxes%flux_par (matflt_type) (7.9.2.1.12)

flux_dia (1483)	edge%fluid%vi_par%fluxes%flux_dia (matflt_type) (7.9.2.1.12)
flux_rad (1483)	edge%fluid%vi_par%fluxes%flux_rad (matflt_type) (7.9.2.1.12)
transp_coef (1486)	edge%fluid%vi_par%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)
gridlink (1491)	edge%fluid%vi_par%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%vi_par%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%vi_par%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%vi_par%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
vi_rad (1479)	edge%fluid%vi_rad (grid_ni) (7.9.2.1.152)
main_field (1486)	edge%fluid%vi_rad%main_field (grid_field_ion) (7.9.2.1.144)
gridlink (1478)	edge%fluid%vi_rad%main_field%gridlink (vecint_type) (7.9.2.1.15)
pointer (1478)	edge%fluid%vi_rad%main_field%pointer (matint_type) (7.9.2.1.13)
value (1478)	edge%fluid%vi_rad%main_field%value (matflt_type) (7.9.2.1.12)
fluxes (1486)	edge%fluid%vi_rad%fluxes (grid_fluxes_part_ion) (7.9.2.1.149)
gridlink (1483)	edge%fluid%vi_rad%fluxes%gridlink (vecint_type) (7.9.2.1.15)
pointer (1483)	edge%fluid%vi_rad%fluxes%pointer (matint_type) (7.9.2.1.13)
flux_par (1483)	edge%fluid%vi_rad%fluxes%flux_par (matflt_type) (7.9.2.1.12)
flux_dia (1483)	edge%fluid%vi_rad%fluxes%flux_dia (matflt_type) (7.9.2.1.12)
flux_rad (1483)	edge%fluid%vi_rad%fluxes%flux_rad (matflt_type) (7.9.2.1.12)
transp_coef (1486)	edge%fluid%vi_rad%transp_coef (grid_transp_coef_ion) (7.9.2.1.157)
gridlink (1491)	edge%fluid%vi_rad%transp_coef%gridlink (vecint_type) (7.9.2.1.15)
pointer (1491)	edge%fluid%vi_rad%transp_coef%pointer (matint_type) (7.9.2.1.13)
diff_dia (1491)	edge%fluid%vi_rad%transp_coef%diff_dia (matflt_type) (7.9.2.1.12)
diff_rad (1491)	edge%fluid%vi_rad%transp_coef%diff_rad (matflt_type) (7.9.2.1.12)
potential (1479)	edge%fluid%potential (grid_field_el) (7.9.2.1.143)
gridlink (1477)	edge%fluid%potential%gridlink (vecint_type) (7.9.2.1.15)
pointer (1477)	edge%fluid%potential%pointer (matint_type) (7.9.2.1.13)
value (1477)	edge%fluid%potential%value (vecflt_type) (7.9.2.1.14)
time (1366)	edge%time (float) (7.9.2.1.2)
codeparam (1366)	edge%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	edge%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	edge%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	edge%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	edge%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	edge%codeparam%output_flag (integer) (7.9.2.1.3)

7.9.2.2.15 equilibrium

datainfo (1367)	equilibrium%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	equilibrium%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	equilibrium%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	equilibrium%datainfo%source (string) (7.9.2.1.4)
comment (1426)	equilibrium%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	equilibrium%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	equilibrium%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	equilibrium%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	equilibrium%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	equilibrium%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	equilibrium%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	equilibrium%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	equilibrium%datainfo%putinfo%rights (string) (7.9.2.1.4)
eqconstraint (1367)	equilibrium%eqconstraint (eqconstraint) (7.9.2.1.125)
bpol (1459)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%bpol%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%bpol%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.2.1.14)

sigma (1462)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.2.1.14)
bvac_r (1459)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.2.1.127)
measured (1461)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.2.1.2)
source (1461)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.2.1.4)
time (1461)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.2.1.2)
exact (1461)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.2.1.3)
weight (1461)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.2.1.2)
sigma (1461)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.2.1.2)
calculated (1461)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.2.1.2)
chi2 (1461)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.2.1.2)
faraday (1459)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%faraday%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%faraday%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.2.1.14)
flux (1459)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%flux%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%flux%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.2.1.14)
i_plasma (1459)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.2.1.127)
measured (1461)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.2.1.2)
source (1461)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.2.1.4)
time (1461)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.2.1.2)
exact (1461)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.2.1.3)
weight (1461)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.2.1.2)
sigma (1461)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.2.1.2)
calculated (1461)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.2.1.2)
chi2 (1461)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.2.1.2)
isoflux (1459)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.2.1.159)
position (1493)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.2.1.231)
r (1565)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.2.1.14)
source (1493)	equilibrium%eqconstraint%isoflux%source (string) (7.9.2.1.4)
weight (1493)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.2.1.14)
sigma (1493)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.2.1.14)
calculated (1493)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1493)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.2.1.14)
jsurf (1459)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%jsurf%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%jsurf%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.2.1.14)
magnet_iron (1459)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.2.1.167)
mr (1501)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.2.1.4)

time (1462)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.2.1.14)
mz (1501)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.2.1.14)
mse (1459)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%mse%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%mse%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.2.1.14)
ne (1459)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%ne%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%ne%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.2.1.14)
pfcurrent (1459)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.2.1.14)
pressure (1459)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.2.1.128)
measured (1462)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.2.1.14)
source (1462)	equilibrium%eqconstraint%pressure%source (string) (7.9.2.1.4)
time (1462)	equilibrium%eqconstraint%pressure%time (float) (7.9.2.1.2)
exact (1462)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.2.1.15)
weight (1462)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.2.1.14)
sigma (1462)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.2.1.14)
calculated (1462)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1462)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.2.1.14)
q (1459)	equilibrium%eqconstraint%q (q) (7.9.2.1.205)
qvalue (1539)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.2.1.14)
position (1539)	equilibrium%eqconstraint%q%position (rz1D) (7.9.2.1.231)
r (1565)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.2.1.14)
source (1539)	equilibrium%eqconstraint%q%source (string) (7.9.2.1.4)
exact (1539)	equilibrium%eqconstraint%q%exact (integer) (7.9.2.1.3)
weight (1539)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.2.1.14)
sigma (1539)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.2.1.14)
calculated (1539)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.2.1.14)

chi2 (1539)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.2.1.14)
xpts (1459)	equilibrium%eqconstraint%xpts (xpts) (7.9.2.1.323)
position (1657)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.2.1.231)
r (1565)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.2.1.14)
source (1657)	equilibrium%eqconstraint%xpts%source (string) (7.9.2.1.4)
weight (1657)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.2.1.14)
sigma (1657)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.2.1.14)
calculated (1657)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.2.1.14)
chi2 (1657)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.2.1.14)
eqgeometry (1367)	equilibrium%eqgeometry (eqgeometry) (7.9.2.1.126)
source (1460)	equilibrium%eqgeometry%source (string) (7.9.2.1.4)
boundarytype (1460)	equilibrium%eqgeometry%boundarytype (integer) (7.9.2.1.3)
boundary (1460)	equilibrium%eqgeometry%boundary (rz1D_npoints) (7.9.2.1.232)
r (1566)	equilibrium%eqgeometry%boundary%r (vecflt_type) (7.9.2.1.14)
z (1566)	equilibrium%eqgeometry%boundary%z (vecflt_type) (7.9.2.1.14)
npoints (1566)	equilibrium%eqgeometry%boundary%npoints (integer) (7.9.2.1.3)
geom_axis (1460)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.2.1.2)
a_minor (1460)	equilibrium%eqgeometry%a_minor (float) (7.9.2.1.2)
elongation (1460)	equilibrium%eqgeometry%elongation (float) (7.9.2.1.2)
tria_upper (1460)	equilibrium%eqgeometry%tria_upper (float) (7.9.2.1.2)
tria_lower (1460)	equilibrium%eqgeometry%tria_lower (float) (7.9.2.1.2)
xpts (1460)	equilibrium%eqgeometry%xpts (rz1D) (7.9.2.1.231)
r (1565)	equilibrium%eqgeometry%xpts%r (vecflt_type) (7.9.2.1.14)
z (1565)	equilibrium%eqgeometry%xpts%z (vecflt_type) (7.9.2.1.14)
left_low_st (1460)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.2.1.2)
right_low_st (1460)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.2.1.2)
left_up_st (1460)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.2.1.2)
right_up_st (1460)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.2.1.2)
active_limit (1460)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%eqgeometry%active_limit%r (float) (7.9.2.1.2)
z (1564)	equilibrium%eqgeometry%active_limit%z (float) (7.9.2.1.2)
flush (1367)	equilibrium%flush (flush) (7.9.2.1.133)
datainfo (1467)	equilibrium%flush%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	equilibrium%flush%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	equilibrium%flush%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	equilibrium%flush%datainfo%source (string) (7.9.2.1.4)
comment (1426)	equilibrium%flush%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	equilibrium%flush%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	equilibrium%flush%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	equilibrium%flush%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.2.1.4)
position (1467)	equilibrium%flush%position (rz1D) (7.9.2.1.231)

r (1565)	equilibrium%flush%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	equilibrium%flush%position%z (vecflt_type) (7.9.2.1.14)
coef (1467)	equilibrium%flush%coef (matflt_type) (7.9.2.1.12)
codeparam (1467)	equilibrium%flush%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	equilibrium%flush%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	equilibrium%flush%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	equilibrium%flush%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	equilibrium%flush%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	equilibrium%flush%codeparam%output_flag (integer) (7.9.2.1.3)
global_param (1367)	equilibrium%global_param (global_param) (7.9.2.1.140)
beta_pol (1474)	equilibrium%global_param%beta_pol (float) (7.9.2.1.2)
beta_tor (1474)	equilibrium%global_param%beta_tor (float) (7.9.2.1.2)
beta_normal (1474)	equilibrium%global_param%beta_normal (float) (7.9.2.1.2)
i_plasma (1474)	equilibrium%global_param%i_plasma (float) (7.9.2.1.2)
li (1474)	equilibrium%global_param%li (float) (7.9.2.1.2)
volume (1474)	equilibrium%global_param%volume (float) (7.9.2.1.2)
area (1474)	equilibrium%global_param%area (float) (7.9.2.1.2)
psi_ax (1474)	equilibrium%global_param%psi_ax (float) (7.9.2.1.2)
psi_bound (1474)	equilibrium%global_param%psi_bound (float) (7.9.2.1.2)
mag_axis (1474)	equilibrium%global_param%mag_axis (mag_axis) (7.9.2.1.166)
position (1500)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.2.1.230)
r (1564)	equilibrium%global_param%mag_axis%position%r (float) (7.9.2.1.2)
z (1564)	equilibrium%global_param%mag_axis%position%z (float) (7.9.2.1.2)
bphi (1500)	equilibrium%global_param%mag_axis%bphi (float) (7.9.2.1.2)
q (1500)	equilibrium%global_param%mag_axis%q (float) (7.9.2.1.2)
q_95 (1474)	equilibrium%global_param%q_95 (float) (7.9.2.1.2)
q_min (1474)	equilibrium%global_param%q_min (float) (7.9.2.1.2)
toroid_field (1474)	equilibrium%global_param%toroid_field (b0r0) (7.9.2.1.63)
r0 (1397)	equilibrium%global_param%toroid_field%r0 (float) (7.9.2.1.2)
b0 (1397)	equilibrium%global_param%toroid_field%b0 (float) (7.9.2.1.2)
w_mhd (1474)	equilibrium%global_param%w_mhd (float) (7.9.2.1.2)
gamma (1474)	equilibrium%global_param%gamma (float) (7.9.2.1.2)
profiles_1d (1367)	equilibrium%profiles_1d (profiles_1d) (7.9.2.1.199)
psi (1533)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.2.1.14)
phi (1533)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.2.1.14)
pressure (1533)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.2.1.14)
F_dia (1533)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.2.1.14)
pprime (1533)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.2.1.14)
ffprime (1533)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.2.1.14)
jphi (1533)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.2.1.14)
jparallel (1533)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.2.1.14)
q (1533)	equilibrium%profiles_1d%q (vecflt_type) (7.9.2.1.14)
r_inboard (1533)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.2.1.14)
r_outboard (1533)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.2.1.14)
rho_tor (1533)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.2.1.14)
dpsidrho_tor (1533)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.2.1.14)
rho_vol (1533)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.2.1.14)
beta_pol (1533)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.2.1.14)
li (1533)	equilibrium%profiles_1d%li (vecflt_type) (7.9.2.1.14)
elongation (1533)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.2.1.14)
tria_upper (1533)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.2.1.14)
tria_lower (1533)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.2.1.14)
volume (1533)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.2.1.14)
vprime (1533)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.2.1.14)
area (1533)	equilibrium%profiles_1d%area (vecflt_type) (7.9.2.1.14)
aprime (1533)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.2.1.14)
surface (1533)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.2.1.14)
ftrap (1533)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.2.1.14)
gm1 (1533)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.2.1.14)
gm2 (1533)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.2.1.14)
gm3 (1533)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.2.1.14)

gm4 (1533)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.2.1.14)
gm5 (1533)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.2.1.14)
gm6 (1533)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.2.1.14)
gm7 (1533)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.2.1.14)
gm8 (1533)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.2.1.14)
gm9 (1533)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.2.1.14)
b_av (1533)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.2.1.14)
b_min (1533)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.2.1.14)
b_max (1533)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.2.1.14)
omega (1533)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.2.1.14)
omegaprime (1533)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.2.1.14)
mach_a (1533)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.2.1.14)
phi_flow (1533)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.2.1.14)
s_flow (1533)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.2.1.14)
h_flow (1533)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.2.1.14)
profiles_2d (1367)	equilibrium%profiles_2d (profiles_2d) (7.9.2.1.200)
grid_type (1534)	equilibrium%profiles_2d%grid_type (string) (7.9.2.1.4)
grid (1534)	equilibrium%profiles_2d%grid (grid) (7.9.2.1.142)
dim1 (1476)	equilibrium%profiles_2d%grid%dim1 (vecflt_type) (7.9.2.1.14)
dim2 (1476)	equilibrium%profiles_2d%grid%dim2 (vecflt_type) (7.9.2.1.14)
connect (1476)	equilibrium%profiles_2d%grid%connect (matint_type) (7.9.2.1.13)
r (1534)	equilibrium%profiles_2d%r (matflt_type) (7.9.2.1.12)
z (1534)	equilibrium%profiles_2d%z (matflt_type) (7.9.2.1.12)
psi (1534)	equilibrium%profiles_2d%psi (matflt_type) (7.9.2.1.12)
theta (1534)	equilibrium%profiles_2d%theta (matflt_type) (7.9.2.1.12)
jphi (1534)	equilibrium%profiles_2d%jphi (matflt_type) (7.9.2.1.12)
jpar (1534)	equilibrium%profiles_2d%jpar (matflt_type) (7.9.2.1.12)
br (1534)	equilibrium%profiles_2d%br (matflt_type) (7.9.2.1.12)
bz (1534)	equilibrium%profiles_2d%bz (matflt_type) (7.9.2.1.12)
bphi (1534)	equilibrium%profiles_2d%bphi (matflt_type) (7.9.2.1.12)
vphi (1534)	equilibrium%profiles_2d%vphi (matflt_type) (7.9.2.1.12)
vtheta (1534)	equilibrium%profiles_2d%vtheta (matflt_type) (7.9.2.1.12)
rho_mass (1534)	equilibrium%profiles_2d%rho_mass (matflt_type) (7.9.2.1.12)
pressure (1534)	equilibrium%profiles_2d%pressure (matflt_type) (7.9.2.1.12)
temperature (1534)	equilibrium%profiles_2d%temperature (matflt_type) (7.9.2.1.12)
coord_sys (1367)	equilibrium%coord_sys (coord_sys) (7.9.2.1.78)
grid_type (1412)	equilibrium%coord_sys%grid_type (string) (7.9.2.1.4)
grid (1412)	equilibrium%coord_sys%grid (reggrid) (7.9.2.1.228)
dim1 (1562)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.2.1.14)
dim2 (1562)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.2.1.14)
jacobian (1412)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.2.1.12)
g_11 (1412)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.2.1.12)
g_12 (1412)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.2.1.12)
g_13 (1412)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.2.1.12)
g_22 (1412)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.2.1.12)
g_23 (1412)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.2.1.12)
g_33 (1412)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.2.1.12)
position (1412)	equilibrium%coord_sys%position (rz2D) (7.9.2.1.233)
r (1567)	equilibrium%coord_sys%position%r (matflt_type) (7.9.2.1.12)
z (1567)	equilibrium%coord_sys%position%z (matflt_type) (7.9.2.1.12)
time (1367)	equilibrium%time (float) (7.9.2.1.2)
codeparam (1367)	equilibrium%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	equilibrium%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	equilibrium%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	equilibrium%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	equilibrium%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	equilibrium%codeparam%output_flag (integer) (7.9.2.1.3)

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datainfo (1498)	lineintegraldiag%datainfo (datainfo) (7.9.2.1.92)

dataprovider (1426)	lineintegraldiag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	lineintegraldiag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	lineintegraldiag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	lineintegraldiag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	lineintegraldiag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	lineintegraldiag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	lineintegraldiag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.2.1.4)
expression (1498)	lineintegraldiag%expression (string) (7.9.2.1.4)
setup_line (1498)	lineintegraldiag%setup_line (setup_line) (7.9.2.1.266)
pivot_point (1600)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.2.1.14)
horchordang1 (1600)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.2.1.14)
verchordang1 (1600)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.2.1.14)
width (1600)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.2.1.14)
second_point (1600)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.2.1.14)
horchordang2 (1600)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.2.1.14)
verchordang2 (1600)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.2.1.14)
third_point (1600)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.2.1.14)
nchordpoints (1600)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.2.1.3)
measure (1498)	lineintegraldiag%measure (exp1D) (7.9.2.1.130)
value (1464)	lineintegraldiag%measure%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.2.1.14)
time (1498)	lineintegraldiag%time (float) (7.9.2.1.2)

7.9.2.2.17 ironmodel

datainfo (1369)	ironmodel%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	ironmodel%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	ironmodel%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	ironmodel%datainfo%source (string) (7.9.2.1.4)
comment (1426)	ironmodel%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	ironmodel%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	ironmodel%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	ironmodel%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	ironmodel%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	ironmodel%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	ironmodel%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	ironmodel%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	ironmodel%datainfo%putinfo%rights (string) (7.9.2.1.4)

desc_iron (1369)	ironmodel%desc_iron (desc_iron) (7.9.2.1.94)
name (1428)	ironmodel%desc_iron%name (vecstring_type) (7.9.2.1.16)
id (1428)	ironmodel%desc_iron%id (vecstring_type) (7.9.2.1.16)
permeability (1428)	ironmodel%desc_iron%permeability (permeability) (7.9.2.1.185)
b (1519)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.2.1.12)
mur (1519)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.2.1.12)
geom_iron (1428)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.2.1.139)
npoints (1473)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.2.1.15)
rzcoordinate (1473)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.2.1.233)
r (1567)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.2.1.12)
z (1567)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.2.1.12)
magnetise (1369)	ironmodel%magnetise (magnetise) (7.9.2.1.168)
mr (1502)	ironmodel%magnetise%mr (exp1D) (7.9.2.1.130)
value (1464)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.2.1.14)
mz (1502)	ironmodel%magnetise%mz (exp1D) (7.9.2.1.130)
value (1464)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.2.1.14)
time (1369)	ironmodel%time (float) (7.9.2.1.2)

7.9.2.2.18 launchs

datainfo (1370)	launchs%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	launchs%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	launchs%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	launchs%datainfo%source (string) (7.9.2.1.4)
comment (1426)	launchs%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	launchs%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	launchs%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	launchs%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	launchs%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	launchs%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	launchs%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	launchs%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	launchs%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	launchs%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	launchs%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	launchs%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	launchs%datainfo%putinfo%rights (string) (7.9.2.1.4)
name (1370)	launchs%name (vecstring_type) (7.9.2.1.16)
type (1370)	launchs%type (vecstring_type) (7.9.2.1.16)
frequency (1370)	launchs%frequency (vecflt_type) (7.9.2.1.14)
mode (1370)	launchs%mode (vecint_type) (7.9.2.1.15)
position (1370)	launchs%position (rzphi1D) (7.9.2.1.235)
r (1569)	launchs%position%r (vecflt_type) (7.9.2.1.14)
z (1569)	launchs%position%z (vecflt_type) (7.9.2.1.14)
phi (1569)	launchs%position%phi (vecflt_type) (7.9.2.1.14)
spectrum (1370)	launchs%spectrum (spectrum) (7.9.2.1.277)
phi_theta (1611)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.2.1.163)
nn_phi (1497)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.2.1.15)
nn_theta (1497)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.2.1.15)
n_phi (1497)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.2.1.12)
n_theta (1497)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.2.1.12)
power (1497)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.2.1.6)
parallel (1611)	launchs%spectrum%parallel (launchs_parallel) (7.9.2.1.162)
nn_par (1496)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.2.1.15)
n_par (1496)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.2.1.12)
power (1496)	launchs%spectrum%parallel%power (vecflt_type) (7.9.2.1.14)
beam (1370)	launchs%beam (rf_beam) (7.9.2.1.229)

spot (1563)	launchs%beam%spot (spot) (7.9.2.1.278)
waist (1612)	launchs%beam%spot%waist (matflt_type) (7.9.2.1.12)
angle (1612)	launchs%beam%spot%angle (vecflt_type) (7.9.2.1.14)
phaseellipse (1563)	launchs%beam%phaseellipse (phaseellipse) (7.9.2.1.193)
invcurvrad (1527)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.2.1.12)
angle (1527)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.2.1.14)
codeparam (1370)	launchs%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	launchs%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	launchs%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	launchs%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	launchs%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	launchs%codeparam%output_flag (integer) (7.9.2.1.3)
time (1370)	launchs%time (float) (7.9.2.1.2)

7.9.2.2.19 limiter

datainfo (1371)	limiter%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	limiter%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	limiter%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	limiter%datainfo%source (string) (7.9.2.1.4)
comment (1426)	limiter%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	limiter%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	limiter%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	limiter%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	limiter%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	limiter%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	limiter%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	limiter%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	limiter%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	limiter%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	limiter%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	limiter%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	limiter%datainfo%putinfo%rights (string) (7.9.2.1.4)
position (1371)	limiter%position (rz1D) (7.9.2.1.231)
r (1565)	limiter%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	limiter%position%z (vecflt_type) (7.9.2.1.14)

7.9.2.2.20 magdiag

datainfo (1372)	magdiag%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	magdiag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	magdiag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	magdiag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	magdiag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	magdiag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	magdiag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	magdiag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	magdiag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	magdiag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	magdiag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	magdiag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	magdiag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	magdiag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	magdiag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	magdiag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	magdiag%datainfo%putinfo%rights (string) (7.9.2.1.4)
ip (1372)	magdiag%ip (exp0D) (7.9.2.1.129)
value (1463)	magdiag%ip%value (float) (7.9.2.1.2)
abserror (1463)	magdiag%ip%abserror (float) (7.9.2.1.2)
relerror (1463)	magdiag%ip%relerror (float) (7.9.2.1.2)
diamagflux (1372)	magdiag%diamagflux (exp0D) (7.9.2.1.129)

value (1463)	magdiag%diamagflux%value (float) (7.9.2.1.2)
abserror (1463)	magdiag%diamagflux%abserror (float) (7.9.2.1.2)
relerror (1463)	magdiag%diamagflux%relerror (float) (7.9.2.1.2)
flux_loops (1372)	magdiag%flux_loops (flux_loops) (7.9.2.1.134)
setup_floops (1468)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.2.1.264)
name (1598)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.2.1.16)
id (1598)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.2.1.16)
position (1598)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.2.1.237)
r (1571)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.2.1.12)
z (1571)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.2.1.12)
phi (1571)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.2.1.12)
npoints (1598)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.2.1.15)
measure (1468)	magdiag%flux_loops%measure (exp1D) (7.9.2.1.130)
value (1464)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.2.1.14)
bpol_probes (1372)	magdiag%bpol_probes (bpol_probes) (7.9.2.1.72)
setup_bprobe (1406)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.2.1.263)
name (1597)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.2.1.16)
id (1597)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.2.1.16)
position (1597)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.2.1.231)
r (1565)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.2.1.14)
polangle (1597)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.2.1.14)
torangle (1597)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.2.1.14)
area (1597)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.2.1.14)
length (1597)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.2.1.14)
turns (1597)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.2.1.15)
measure (1406)	magdiag%bpol_probes%measure (exp1D) (7.9.2.1.130)
value (1464)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.2.1.14)
time (1372)	magdiag%time (float) (7.9.2.1.2)

7.9.2.2.21 mhd

datainfo (1373)	mhd%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	mhd%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	mhd%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	mhd%datainfo%source (string) (7.9.2.1.4)
comment (1426)	mhd%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	mhd%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	mhd%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	mhd%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	mhd%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	mhd%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	mhd%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	mhd%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	mhd%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	mhd%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	mhd%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	mhd%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	mhd%datainfo%putinfo%rights (string) (7.9.2.1.4)
n (1373)	mhd%n (vecint_type) (7.9.2.1.15)
frequency (1373)	mhd%frequency (vecflt_type) (7.9.2.1.14)
growthrate (1373)	mhd%growthrate (vecflt_type) (7.9.2.1.14)
plasma (1373)	mhd%plasma (mhd_plasma) (7.9.2.1.170)
psi (1504)	mhd%plasma%psi (vecflt_type) (7.9.2.1.14)
m (1504)	mhd%plasma%m (array3dflt_type) (7.9.2.1.6)
disp_perp (1504)	mhd%plasma%disp_perp (array3dflt_type) (7.9.2.1.6)
disp_par (1504)	mhd%plasma%disp_par (array3dflt_type) (7.9.2.1.6)

tau_alfven (1504)	mhd%plasma%tau_alfven (vecflt_type) (7.9.2.1.14)
tau_resistive (1504)	mhd%plasma%tau_resistive (vecflt_type) (7.9.2.1.14)
coord_sys (1504)	mhd%plasma%coord_sys (coord_sys) (7.9.2.1.78)
grid_type (1412)	mhd%plasma%coord_sys%grid_type (string) (7.9.2.1.4)
grid (1412)	mhd%plasma%coord_sys%grid (reggrid) (7.9.2.1.228)
dim1 (1562)	mhd%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.2.1.14)
dim2 (1562)	mhd%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.2.1.14)
jacobian (1412)	mhd%plasma%coord_sys%jacobian (matflt_type) (7.9.2.1.12)
g_11 (1412)	mhd%plasma%coord_sys%g_11 (matflt_type) (7.9.2.1.12)
g_12 (1412)	mhd%plasma%coord_sys%g_12 (matflt_type) (7.9.2.1.12)
g_13 (1412)	mhd%plasma%coord_sys%g_13 (matflt_type) (7.9.2.1.12)
g_22 (1412)	mhd%plasma%coord_sys%g_22 (matflt_type) (7.9.2.1.12)
g_23 (1412)	mhd%plasma%coord_sys%g_23 (matflt_type) (7.9.2.1.12)
g_33 (1412)	mhd%plasma%coord_sys%g_33 (matflt_type) (7.9.2.1.12)
position (1412)	mhd%plasma%coord_sys%position (rz2D) (7.9.2.1.233)
r (1567)	mhd%plasma%coord_sys%position%r (matflt_type) (7.9.2.1.12)
z (1567)	mhd%plasma%coord_sys%position%z (matflt_type) (7.9.2.1.12)
a_pert (1504)	mhd%plasma%a_pert (mhd_vector) (7.9.2.1.172)
coord1 (1506)	mhd%plasma%a_pert%coord1 (array3dflt_type) (7.9.2.1.6)
coord2 (1506)	mhd%plasma%a_pert%coord2 (array3dflt_type) (7.9.2.1.6)
coord3 (1506)	mhd%plasma%a_pert%coord3 (array3dflt_type) (7.9.2.1.6)
b_pert (1504)	mhd%plasma%b_pert (mhd_vector) (7.9.2.1.172)
coord1 (1506)	mhd%plasma%b_pert%coord1 (array3dflt_type) (7.9.2.1.6)
coord2 (1506)	mhd%plasma%b_pert%coord2 (array3dflt_type) (7.9.2.1.6)
coord3 (1506)	mhd%plasma%b_pert%coord3 (array3dflt_type) (7.9.2.1.6)
v_pert (1504)	mhd%plasma%v_pert (mhd_vector) (7.9.2.1.172)
coord1 (1506)	mhd%plasma%v_pert%coord1 (array3dflt_type) (7.9.2.1.6)
coord2 (1506)	mhd%plasma%v_pert%coord2 (array3dflt_type) (7.9.2.1.6)
coord3 (1506)	mhd%plasma%v_pert%coord3 (array3dflt_type) (7.9.2.1.6)
rho_masspert (1504)	mhd%plasma%rho_masspert (array3dflt_type) (7.9.2.1.6)
temp_pert (1504)	mhd%plasma%temp_pert (array3dflt_type) (7.9.2.1.6)
vaccum (1373)	mhd%vaccum (mhd_vaccum) (7.9.2.1.171)
m (1505)	mhd%vaccum%m (array3dflt_type) (7.9.2.1.6)
coord_sys (1505)	mhd%vaccum%coord_sys (coord_sys) (7.9.2.1.78)
grid_type (1412)	mhd%vaccum%coord_sys%grid_type (string) (7.9.2.1.4)
grid (1412)	mhd%vaccum%coord_sys%grid (reggrid) (7.9.2.1.228)
dim1 (1562)	mhd%vaccum%coord_sys%grid%dim1 (vecflt_type) (7.9.2.1.14)
dim2 (1562)	mhd%vaccum%coord_sys%grid%dim2 (vecflt_type) (7.9.2.1.14)
jacobian (1412)	mhd%vaccum%coord_sys%jacobian (matflt_type) (7.9.2.1.12)
g_11 (1412)	mhd%vaccum%coord_sys%g_11 (matflt_type) (7.9.2.1.12)
g_12 (1412)	mhd%vaccum%coord_sys%g_12 (matflt_type) (7.9.2.1.12)
g_13 (1412)	mhd%vaccum%coord_sys%g_13 (matflt_type) (7.9.2.1.12)
g_22 (1412)	mhd%vaccum%coord_sys%g_22 (matflt_type) (7.9.2.1.12)
g_23 (1412)	mhd%vaccum%coord_sys%g_23 (matflt_type) (7.9.2.1.12)
g_33 (1412)	mhd%vaccum%coord_sys%g_33 (matflt_type) (7.9.2.1.12)
position (1412)	mhd%vaccum%coord_sys%position (rz2D) (7.9.2.1.233)
r (1567)	mhd%vaccum%coord_sys%position%r (matflt_type) (7.9.2.1.12)
z (1567)	mhd%vaccum%coord_sys%position%z (matflt_type) (7.9.2.1.12)
a_pert (1505)	mhd%vaccum%a_pert (mhd_vector) (7.9.2.1.172)
coord1 (1506)	mhd%vaccum%a_pert%coord1 (array3dflt_type) (7.9.2.1.6)
coord2 (1506)	mhd%vaccum%a_pert%coord2 (array3dflt_type) (7.9.2.1.6)
coord3 (1506)	mhd%vaccum%a_pert%coord3 (array3dflt_type) (7.9.2.1.6)
b_pert (1505)	mhd%vaccum%b_pert (mhd_vector) (7.9.2.1.172)
coord1 (1506)	mhd%vaccum%b_pert%coord1 (array3dflt_type) (7.9.2.1.6)
coord2 (1506)	mhd%vaccum%b_pert%coord2 (array3dflt_type) (7.9.2.1.6)
coord3 (1506)	mhd%vaccum%b_pert%coord3 (array3dflt_type) (7.9.2.1.6)
time (1373)	mhd%time (float) (7.9.2.1.2)
codeparam (1373)	mhd%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	mhd%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	mhd%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	mhd%codeparam%parameters (string) (7.9.2.1.4)

output_diag (1407)	mhd%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	mhd%codeparam%output_flag (integer) (7.9.2.1.3)

7.9.2.2.22 msediag

datainfo (1374)	msediag%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	msediag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	msediag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	msediag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	msediag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	msediag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	msediag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	msediag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	msediag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	msediag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	msediag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	msediag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	msediag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	msediag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	msediag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	msediag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	msediag%datainfo%putinfo%rights (string) (7.9.2.1.4)
setup_mse (1374)	msediag%setup_mse (setup_mse) (7.9.2.1.267)
rzgamma (1601)	msediag%setup_mse%rzgamma (rzphidrdzdphi1D) (7.9.2.1.239)
r (1573)	msediag%setup_mse%rzgamma%r (vecflt_type) (7.9.2.1.14)
z (1573)	msediag%setup_mse%rzgamma%z (vecflt_type) (7.9.2.1.14)
phi (1573)	msediag%setup_mse%rzgamma%phi (vecflt_type) (7.9.2.1.14)
dr (1573)	msediag%setup_mse%rzgamma%dr (vecflt_type) (7.9.2.1.14)
dz (1573)	msediag%setup_mse%rzgamma%dz (vecflt_type) (7.9.2.1.14)
dphi (1573)	msediag%setup_mse%rzgamma%dphi (vecflt_type) (7.9.2.1.14)
geom_coef (1601)	msediag%setup_mse%geom_coef (matflt_type) (7.9.2.1.12)
measure (1374)	msediag%measure (exp1D) (7.9.2.1.130)
value (1464)	msediag%measure%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	msediag%measure%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	msediag%measure%relerror (vecflt_type) (7.9.2.1.14)
time (1374)	msediag%time (float) (7.9.2.1.2)

7.9.2.2.23 nbi

datainfo (1375)	nbi%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	nbi%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	nbi%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	nbi%datainfo%source (string) (7.9.2.1.4)
comment (1426)	nbi%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	nbi%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	nbi%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	nbi%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	nbi%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	nbi%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	nbi%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	nbi%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	nbi%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	nbi%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	nbi%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	nbi%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	nbi%datainfo%putinfo%rights (string) (7.9.2.1.4)
inj_spec (1375)	nbi%inj_spec (inj_spec) (7.9.2.1.158)
amn (1492)	nbi%inj_spec%amn (vecflt_type) (7.9.2.1.14)
zn (1492)	nbi%inj_spec%zn (vecflt_type) (7.9.2.1.14)
zion (1492)	nbi%inj_spec%zion (vecflt_type) (7.9.2.1.14)
pow_unit (1375)	nbi%pow_unit (exp1D) (7.9.2.1.130)

value (1464)	nbi%pow_unit%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	nbi%pow_unit%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	nbi%pow_unit%relerror (vecflt_type) (7.9.2.1.14)
inj_eng_unit (1375)	nbi%inj_eng_unit (exp1D) (7.9.2.1.130)
value (1464)	nbi%inj_eng_unit%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	nbi%inj_eng_unit%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	nbi%inj_eng_unit%relerror (vecflt_type) (7.9.2.1.14)
halfe_cfr (1375)	nbi%halfe_cfr (exp1D) (7.9.2.1.130)
value (1464)	nbi%halfe_cfr%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	nbi%halfe_cfr%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	nbi%halfe_cfr%relerror (vecflt_type) (7.9.2.1.14)
thirde_cfr (1375)	nbi%thirde_cfr (exp1D) (7.9.2.1.130)
value (1464)	nbi%thirde_cfr%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	nbi%thirde_cfr%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	nbi%thirde_cfr%relerror (vecflt_type) (7.9.2.1.14)
setup_inject (1375)	nbi%setup_inject (setup_inject) (7.9.2.1.265)
position (1599)	nbi%setup_inject%position (rzphi1D) (7.9.2.1.235)
r (1569)	nbi%setup_inject%position%r (vecflt_type) (7.9.2.1.14)
z (1569)	nbi%setup_inject%position%z (vecflt_type) (7.9.2.1.14)
phi (1569)	nbi%setup_inject%position%phi (vecflt_type) (7.9.2.1.14)
tang_rad (1599)	nbi%setup_inject%tang_rad (vecflt_type) (7.9.2.1.14)
angle (1599)	nbi%setup_inject%angle (vecflt_type) (7.9.2.1.14)
direction (1599)	nbi%setup_inject%direction (vecint_type) (7.9.2.1.15)
div_vert (1599)	nbi%setup_inject%div_vert (vecflt_type) (7.9.2.1.14)
div_horiz (1599)	nbi%setup_inject%div_horiz (vecflt_type) (7.9.2.1.14)
focal_len_hz (1599)	nbi%setup_inject%focal_len_hz (vecflt_type) (7.9.2.1.14)
focal_len_vc (1599)	nbi%setup_inject%focal_len_vc (vecflt_type) (7.9.2.1.14)
beamlets (1599)	nbi%setup_inject%beamlets (beamlets) (7.9.2.1.64)
nbeamlets (1398)	nbi%setup_inject%beamlets%nbeamlets (vecint_type) (7.9.2.1.15)
position (1398)	nbi%setup_inject%beamlets%position (rzphi2D) (7.9.2.1.237)
r (1571)	nbi%setup_inject%beamlets%position%r (matflt_type) (7.9.2.1.12)
z (1571)	nbi%setup_inject%beamlets%position%z (matflt_type) (7.9.2.1.12)
phi (1571)	nbi%setup_inject%beamlets%position%phi (matflt_type) (7.9.2.1.12)
tang_rad_blt (1398)	nbi%setup_inject%beamlets%tang_rad_blt (matflt_type) (7.9.2.1.12)
angle_blt (1398)	nbi%setup_inject%beamlets%angle_blt (matflt_type) (7.9.2.1.12)
pow_frc_blt (1398)	nbi%setup_inject%beamlets%pow_frc_blt (matflt_type) (7.9.2.1.12)
codeparam (1375)	nbi%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	nbi%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	nbi%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	nbi%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	nbi%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	nbi%codeparam%output_flag (integer) (7.9.2.1.3)
time (1375)	nbi%time (float) (7.9.2.1.2)

7.9.2.2.24 neoclassic

datainfo (1376)	neoclassic%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	neoclassic%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	neoclassic%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	neoclassic%datainfo%source (string) (7.9.2.1.4)
comment (1426)	neoclassic%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	neoclassic%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	neoclassic%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	neoclassic%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	neoclassic%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	neoclassic%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	neoclassic%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	neoclassic%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.2.1.4)

putlocation (1538)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	neoclassic%datainfo%putinfo%rights (string) (7.9.2.1.4)
rho_tor_norm (1376)	neoclassic%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1376)	neoclassic%rho_tor (vecflt_type) (7.9.2.1.14)
composition (1376)	neoclassic%composition (composition) (7.9.2.1.76)
amn (1410)	neoclassic%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	neoclassic%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	neoclassic%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	neoclassic%composition%imp_flag (vecint_type) (7.9.2.1.15)
ni_neo (1376)	neoclassic%ni_neo (transcoefion) (7.9.2.1.300)
diff_eff (1634)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.2.1.12)
vconv_eff (1634)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.2.1.12)
exchange (1634)	neoclassic%ni_neo%exchange (matflt_type) (7.9.2.1.12)
qgi (1634)	neoclassic%ni_neo%qgi (matflt_type) (7.9.2.1.12)
flux (1634)	neoclassic%ni_neo%flux (matflt_type) (7.9.2.1.12)
off_diagonal (1634)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.2.1.179)
d_ni (1513)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.2.1.6)
d_ti (1513)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.2.1.6)
d_ne (1513)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.2.1.12)
d_te (1513)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.2.1.12)
d_epar (1513)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.2.1.12)
d_mtor (1513)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.2.1.12)
flag (1634)	neoclassic%ni_neo%flag (integer) (7.9.2.1.3)
ne_neo (1376)	neoclassic%ne_neo (transcoefel) (7.9.2.1.298)
diff_eff (1632)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.2.1.14)
vconv_eff (1632)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.2.1.14)
flux (1632)	neoclassic%ne_neo%flux (vecflt_type) (7.9.2.1.14)
off_diagonal (1632)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.2.1.178)
d_ni (1512)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.2.1.12)
d_ti (1512)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.2.1.12)
d_ne (1512)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.2.1.14)
d_te (1512)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.2.1.14)
d_epar (1512)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.2.1.14)
d_mtor (1512)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.2.1.14)
flag (1632)	neoclassic%ne_neo%flag (integer) (7.9.2.1.3)
nz_neo (1376)	neoclassic%nz_neo (transcoefimp) (7.9.2.1.299)
diff_eff (1633)	neoclassic%nz_neo%diff_eff (array3dflt_type) (7.9.2.1.6)
vconv_eff (1633)	neoclassic%nz_neo%vconv_eff (array3dflt_type) (7.9.2.1.6)
exchange (1633)	neoclassic%nz_neo%exchange (array3dflt_type) (7.9.2.1.6)
flux (1633)	neoclassic%nz_neo%flux (array3dflt_type) (7.9.2.1.6)
flag (1633)	neoclassic%nz_neo%flag (integer) (7.9.2.1.3)
ti_neo (1376)	neoclassic%ti_neo (transcoefion) (7.9.2.1.300)
diff_eff (1634)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.2.1.12)
vconv_eff (1634)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.2.1.12)
exchange (1634)	neoclassic%ti_neo%exchange (matflt_type) (7.9.2.1.12)
qgi (1634)	neoclassic%ti_neo%qgi (matflt_type) (7.9.2.1.12)
flux (1634)	neoclassic%ti_neo%flux (matflt_type) (7.9.2.1.12)
off_diagonal (1634)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.2.1.179)
d_ni (1513)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.2.1.6)
d_ti (1513)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.2.1.6)
d_ne (1513)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.2.1.12)
d_te (1513)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.2.1.12)
d_epar (1513)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.2.1.12)
d_mtor (1513)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.2.1.12)
flag (1634)	neoclassic%ti_neo%flag (integer) (7.9.2.1.3)
te_neo (1376)	neoclassic%te_neo (transcoefel) (7.9.2.1.298)
diff_eff (1632)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.2.1.14)
vconv_eff (1632)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.2.1.14)
flux (1632)	neoclassic%te_neo%flux (vecflt_type) (7.9.2.1.14)
off_diagonal (1632)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.2.1.178)
d_ni (1512)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.2.1.12)

d_ti (1512)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.2.1.12)
d_ne (1512)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.2.1.14)
d_te (1512)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.2.1.14)
d_epar (1512)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.2.1.14)
d_mtor (1512)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.2.1.14)
flag (1632)	neoclassic%te_neo%flag (integer) (7.9.2.1.3)
tz_neo (1376)	neoclassic%tz_neo (transcoefimp) (7.9.2.1.299)
diff_eff (1633)	neoclassic%tz_neo%diff_eff (array3dflt_type) (7.9.2.1.6)
vconv_eff (1633)	neoclassic%tz_neo%vconv_eff (array3dflt_type) (7.9.2.1.6)
exchange (1633)	neoclassic%tz_neo%exchange (array3dflt_type) (7.9.2.1.6)
flux (1633)	neoclassic%tz_neo%flux (array3dflt_type) (7.9.2.1.6)
flag (1633)	neoclassic%tz_neo%flag (integer) (7.9.2.1.3)
mtor_neo (1376)	neoclassic%mtor_neo (transcoefel) (7.9.2.1.298)
diff_eff (1632)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.2.1.14)
vconv_eff (1632)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.2.1.14)
flux (1632)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.2.1.14)
off_diagonal (1632)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.2.1.178)
d_ni (1512)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.2.1.12)
d_ti (1512)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.2.1.12)
d_ne (1512)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.2.1.14)
d_te (1512)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.2.1.14)
d_epar (1512)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.2.1.14)
d_mtor (1512)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.2.1.14)
flag (1632)	neoclassic%mtor_neo%flag (integer) (7.9.2.1.3)
sigma (1376)	neoclassic%sigma (vecflt_type) (7.9.2.1.14)
jboot (1376)	neoclassic%jboot (vecflt_type) (7.9.2.1.14)
er (1376)	neoclassic%er (vecflt_type) (7.9.2.1.14)
vpol (1376)	neoclassic%vpol (matflt_type) (7.9.2.1.12)
fext (1376)	neoclassic%fext (array3dflt_type) (7.9.2.1.6)
jext (1376)	neoclassic%jext (vecflt_type) (7.9.2.1.14)
time (1376)	neoclassic%time (float) (7.9.2.1.2)
codeparam (1376)	neoclassic%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	neoclassic%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	neoclassic%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	neoclassic%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	neoclassic%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	neoclassic%codeparam%output_flag (integer) (7.9.2.1.3)

7.9.2.2.25 orbit

datainfo (1377)	orbit%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	orbit%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	orbit%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	orbit%datainfo%source (string) (7.9.2.1.4)
comment (1426)	orbit%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	orbit%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	orbit%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	orbit%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	orbit%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	orbit%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	orbit%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	orbit%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	orbit%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	orbit%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	orbit%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	orbit%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	orbit%datainfo%putinfo%rights (string) (7.9.2.1.4)
orbitt_id (1377)	orbit%orbitt_id (orbitt_id) (7.9.2.1.183)
amn (1517)	orbit%orbitt_id%amn (float) (7.9.2.1.2)
zion (1517)	orbit%orbitt_id%zion (float) (7.9.2.1.2)
energy (1517)	orbit%orbitt_id%energy (vecflt_type) (7.9.2.1.14)

magn_mom (1517)	orbit%orbitt_id%magn_mom (vecflt_type) (7.9.2.1.14)
p_phi (1517)	orbit%orbitt_id%p_phi (vecflt_type) (7.9.2.1.14)
sigma (1517)	orbit%orbitt_id%sigma (vecint_type) (7.9.2.1.15)
orb_trace (1377)	orbit%orb_trace (orb_trace) (7.9.2.1.181)
time_orb (1515)	orbit%orb_trace%time_orb (matflt_type) (7.9.2.1.12)
ntorb (1515)	orbit%orb_trace%ntorb (vecint_type) (7.9.2.1.15)
r (1515)	orbit%orb_trace%r (matflt_type) (7.9.2.1.12)
z (1515)	orbit%orb_trace%z (matflt_type) (7.9.2.1.12)
psi (1515)	orbit%orb_trace%psi (matflt_type) (7.9.2.1.12)
theta_b (1515)	orbit%orb_trace%theta_b (matflt_type) (7.9.2.1.12)
v_parallel (1515)	orbit%orb_trace%v_parallel (matflt_type) (7.9.2.1.12)
v_perp (1515)	orbit%orb_trace%v_perp (matflt_type) (7.9.2.1.12)
orb_glob_dat (1377)	orbit%orb_glob_dat (orb_glob_dat) (7.9.2.1.180)
orbit_type (1514)	orbit%orb_glob_dat%orbit_type (vecint_type) (7.9.2.1.15)
omega_b (1514)	orbit%orb_glob_dat%omega_b (vecflt_type) (7.9.2.1.14)
omega_phi (1514)	orbit%orb_glob_dat%omega_phi (vecflt_type) (7.9.2.1.14)
omega_c_av (1514)	orbit%orb_glob_dat%omega_c_av (vecflt_type) (7.9.2.1.14)
special_pos (1514)	orbit%orb_glob_dat%special_pos (special_pos) (7.9.2.1.276)
midplane (1610)	orbit%orb_glob_dat%special_pos%midplane (midplane) (7.9.2.1.173)
outer (1507)	orbit%orb_glob_dat%special_pos%midplane%outer (orbit_pos) (7.9.2.1.182)
r (1516)	orbit%orb_glob_dat%special_pos%midplane%outer%r (vecflt_type) (7.9.2.1.14)
z (1516)	orbit%orb_glob_dat%special_pos%midplane%outer%z (vecflt_type) (7.9.2.1.14)
psi (1516)	orbit%orb_glob_dat%special_pos%midplane%outer%psi (vecflt_type) (7.9.2.1.14)
theta_b (1516)	orbit%orb_glob_dat%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.2.1.14)
inner (1507)	orbit%orb_glob_dat%special_pos%midplane%inner (orbit_pos) (7.9.2.1.182)
r (1516)	orbit%orb_glob_dat%special_pos%midplane%inner%r (vecflt_type) (7.9.2.1.14)
z (1516)	orbit%orb_glob_dat%special_pos%midplane%inner%z (vecflt_type) (7.9.2.1.14)
psi (1516)	orbit%orb_glob_dat%special_pos%midplane%inner%psi (vecflt_type) (7.9.2.1.14)
theta_b (1516)	orbit%orb_glob_dat%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.2.1.14)
turning_pts (1610)	orbit%orb_glob_dat%special_pos%turning_pts (turning_pts) (7.9.2.1.312)
upper (1646)	orbit%orb_glob_dat%special_pos%turning_pts%upper (orbit_pos) (7.9.2.1.182)
r (1516)	orbit%orb_glob_dat%special_pos%turning_pts%upper%r (vecflt_type) (7.9.2.1.14)
z (1516)	orbit%orb_glob_dat%special_pos%turning_pts%upper%z (vecflt_type) (7.9.2.1.14)
psi (1516)	orbit%orb_glob_dat%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.2.1.14)
theta_b (1516)	orbit%orb_glob_dat%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.2.1.14)
lower (1646)	orbit%orb_glob_dat%special_pos%turning_pts%lower (orbit_pos) (7.9.2.1.182)
r (1516)	orbit%orb_glob_dat%special_pos%turning_pts%lower%r (vecflt_type) (7.9.2.1.14)
z (1516)	orbit%orb_glob_dat%special_pos%turning_pts%lower%z (vecflt_type) (7.9.2.1.14)
psi (1516)	orbit%orb_glob_dat%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.2.1.14)
theta_b (1516)	orbit%orb_glob_dat%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.2.1.14)
codeparam (1377)	orbit%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	orbit%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	orbit%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	orbit%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	orbit%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	orbit%codeparam%output_flag (integer) (7.9.2.1.3)
time (1377)	orbit%time (float) (7.9.2.1.2)

7.9.2.2.26 pfsystems

datainfo (1378)	pfsystems%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	pfsystems%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	pfsystems%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	pfsystems%datainfo%source (string) (7.9.2.1.4)
comment (1426)	pfsystems%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	pfsystems%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	pfsystems%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	pfsystems%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	pfsystems%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	pfsystems%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	pfsystems%datainfo%whatref%run (integer) (7.9.2.1.3)

imax (1430)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.2.1.14)
res (1430)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.2.1.14)
umin (1430)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.2.1.14)
umax (1430)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.2.1.14)
emax (1430)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.2.1.14)
voltage (1526)	pfsystems%pfsupplies%voltage (exp1D) (7.9.2.1.130)
value (1464)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.2.1.14)
current (1526)	pfsystems%pfsupplies%current (exp1D) (7.9.2.1.130)
value (1464)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.2.1.14)
time (1378)	pfsystems%time (float) (7.9.2.1.2)

7.9.2.2.27 polardiag

datainfo (1498)	lineintegraldiag%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	lineintegraldiag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	lineintegraldiag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	lineintegraldiag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	lineintegraldiag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	lineintegraldiag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	lineintegraldiag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	lineintegraldiag%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.2.1.4)
expression (1498)	lineintegraldiag%expression (string) (7.9.2.1.4)
setup_line (1498)	lineintegraldiag%setup_line (setup_line) (7.9.2.1.266)
pivot_point (1600)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.2.1.14)
horchordang1 (1600)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.2.1.14)
verchordang1 (1600)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.2.1.14)
width (1600)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.2.1.14)
second_point (1600)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.2.1.14)
horchordang2 (1600)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.2.1.14)
verchordang2 (1600)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.2.1.14)
third_point (1600)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.2.1.235)
r (1569)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.2.1.14)
z (1569)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.2.1.14)
phi (1569)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.2.1.14)
nchordpoints (1600)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.2.1.3)
measure (1498)	lineintegraldiag%measure (exp1D) (7.9.2.1.130)
value (1464)	lineintegraldiag%measure%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.2.1.14)
time (1498)	lineintegraldiag%time (float) (7.9.2.1.2)

7.9.2.2.28 reference

datainfo (1380)	reference%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	reference%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	reference%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	reference%datainfo%source (string) (7.9.2.1.4)
comment (1426)	reference%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	reference%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	reference%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	reference%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	reference%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	reference%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	reference%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	reference%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	reference%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	reference%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	reference%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	reference%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	reference%datainfo%putinfo%rights (string) (7.9.2.1.4)
non_timed (1380)	reference%non_timed (ref_nt) (7.9.2.1.208)
zerod_real (1542)	reference%non_timed%zerod_real (ref_nt_0dr) (7.9.2.1.211)
ref1 (1545)	reference%non_timed%zerod_real%ref1 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref1%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref1%description (string) (7.9.2.1.4)
ref2 (1545)	reference%non_timed%zerod_real%ref2 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref2%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref2%description (string) (7.9.2.1.4)
ref3 (1545)	reference%non_timed%zerod_real%ref3 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref3%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref3%description (string) (7.9.2.1.4)
ref4 (1545)	reference%non_timed%zerod_real%ref4 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref4%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref4%description (string) (7.9.2.1.4)
ref5 (1545)	reference%non_timed%zerod_real%ref5 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref5%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref5%description (string) (7.9.2.1.4)
ref6 (1545)	reference%non_timed%zerod_real%ref6 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref6%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref6%description (string) (7.9.2.1.4)
ref7 (1545)	reference%non_timed%zerod_real%ref7 (ref_nt_0dr_ref) (7.9.2.1.212)
value (1546)	reference%non_timed%zerod_real%ref7%value (float) (7.9.2.1.2)
description (1546)	reference%non_timed%zerod_real%ref7%description (string) (7.9.2.1.4)
zerod_int (1542)	reference%non_timed%zerod_int (ref_nt_0di) (7.9.2.1.209)
ref1 (1543)	reference%non_timed%zerod_int%ref1 (ref_nt_0di_ref) (7.9.2.1.210)
value (1544)	reference%non_timed%zerod_int%ref1%value (integer) (7.9.2.1.3)
description (1544)	reference%non_timed%zerod_int%ref1%description (string) (7.9.2.1.4)
ref2 (1543)	reference%non_timed%zerod_int%ref2 (ref_nt_0di_ref) (7.9.2.1.210)
value (1544)	reference%non_timed%zerod_int%ref2%value (integer) (7.9.2.1.3)
description (1544)	reference%non_timed%zerod_int%ref2%description (string) (7.9.2.1.4)
ref3 (1543)	reference%non_timed%zerod_int%ref3 (ref_nt_0di_ref) (7.9.2.1.210)
value (1544)	reference%non_timed%zerod_int%ref3%value (integer) (7.9.2.1.3)
description (1544)	reference%non_timed%zerod_int%ref3%description (string) (7.9.2.1.4)
ref4 (1543)	reference%non_timed%zerod_int%ref4 (ref_nt_0di_ref) (7.9.2.1.210)
value (1544)	reference%non_timed%zerod_int%ref4%value (integer) (7.9.2.1.3)
description (1544)	reference%non_timed%zerod_int%ref4%description (string) (7.9.2.1.4)
zerod_string (1542)	reference%non_timed%zerod_string (ref_nt_0ds) (7.9.2.1.213)
ref1 (1547)	reference%non_timed%zerod_string%ref1 (ref_nt_0ds_ref) (7.9.2.1.214)
value (1548)	reference%non_timed%zerod_string%ref1%value (string) (7.9.2.1.4)
description (1548)	reference%non_timed%zerod_string%ref1%description (string) (7.9.2.1.4)
ref2 (1547)	reference%non_timed%zerod_string%ref2 (ref_nt_0ds_ref) (7.9.2.1.214)
value (1548)	reference%non_timed%zerod_string%ref2%value (string) (7.9.2.1.4)
description (1548)	reference%non_timed%zerod_string%ref2%description (string) (7.9.2.1.4)
oned_real (1542)	reference%non_timed%oned_real (ref_nt_1dr) (7.9.2.1.217)

ref1 (1551)	reference%non_timed%oned_real%ref1 (ref_nt_1dr_ref) (7.9.2.1.218)
value (1552)	reference%non_timed%oned_real%ref1%value (vecflt_type) (7.9.2.1.14)
description (1552)	reference%non_timed%oned_real%ref1%description (string) (7.9.2.1.4)
ref2 (1551)	reference%non_timed%oned_real%ref2 (ref_nt_1dr_ref) (7.9.2.1.218)
value (1552)	reference%non_timed%oned_real%ref2%value (vecflt_type) (7.9.2.1.14)
description (1552)	reference%non_timed%oned_real%ref2%description (string) (7.9.2.1.4)
ref3 (1551)	reference%non_timed%oned_real%ref3 (ref_nt_1dr_ref) (7.9.2.1.218)
value (1552)	reference%non_timed%oned_real%ref3%value (vecflt_type) (7.9.2.1.14)
description (1552)	reference%non_timed%oned_real%ref3%description (string) (7.9.2.1.4)
ref4 (1551)	reference%non_timed%oned_real%ref4 (ref_nt_1dr_ref) (7.9.2.1.218)
value (1552)	reference%non_timed%oned_real%ref4%value (vecflt_type) (7.9.2.1.14)
description (1552)	reference%non_timed%oned_real%ref4%description (string) (7.9.2.1.4)
ref5 (1551)	reference%non_timed%oned_real%ref5 (ref_nt_1dr_ref) (7.9.2.1.218)
value (1552)	reference%non_timed%oned_real%ref5%value (vecflt_type) (7.9.2.1.14)
description (1552)	reference%non_timed%oned_real%ref5%description (string) (7.9.2.1.4)
oned_int (1542)	reference%non_timed%oned_int (ref_nt_1di) (7.9.2.1.215)
ref1 (1549)	reference%non_timed%oned_int%ref1 (ref_nt_1di_ref) (7.9.2.1.216)
value (1550)	reference%non_timed%oned_int%ref1%value (vecint_type) (7.9.2.1.15)
description (1550)	reference%non_timed%oned_int%ref1%description (string) (7.9.2.1.4)
ref2 (1549)	reference%non_timed%oned_int%ref2 (ref_nt_1di_ref) (7.9.2.1.216)
value (1550)	reference%non_timed%oned_int%ref2%value (vecint_type) (7.9.2.1.15)
description (1550)	reference%non_timed%oned_int%ref2%description (string) (7.9.2.1.4)
ref3 (1549)	reference%non_timed%oned_int%ref3 (ref_nt_1di_ref) (7.9.2.1.216)
value (1550)	reference%non_timed%oned_int%ref3%value (vecint_type) (7.9.2.1.15)
description (1550)	reference%non_timed%oned_int%ref3%description (string) (7.9.2.1.4)
ref4 (1549)	reference%non_timed%oned_int%ref4 (ref_nt_1di_ref) (7.9.2.1.216)
value (1550)	reference%non_timed%oned_int%ref4%value (vecint_type) (7.9.2.1.15)
description (1550)	reference%non_timed%oned_int%ref4%description (string) (7.9.2.1.4)
timed (1380)	reference%timed (ref_t) (7.9.2.1.219)
zerod_real (1553)	reference%timed%zerod_real (ref_t_0dr) (7.9.2.1.222)
ref1 (1556)	reference%timed%zerod_real%ref1 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref1%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref1%description (string) (7.9.2.1.4)
ref2 (1556)	reference%timed%zerod_real%ref2 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref2%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref2%description (string) (7.9.2.1.4)
ref3 (1556)	reference%timed%zerod_real%ref3 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref3%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref3%description (string) (7.9.2.1.4)
ref4 (1556)	reference%timed%zerod_real%ref4 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref4%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref4%description (string) (7.9.2.1.4)
ref5 (1556)	reference%timed%zerod_real%ref5 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref5%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref5%description (string) (7.9.2.1.4)
ref6 (1556)	reference%timed%zerod_real%ref6 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref6%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref6%description (string) (7.9.2.1.4)
ref7 (1556)	reference%timed%zerod_real%ref7 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref7%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref7%description (string) (7.9.2.1.4)
ref8 (1556)	reference%timed%zerod_real%ref8 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref8%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref8%description (string) (7.9.2.1.4)
ref9 (1556)	reference%timed%zerod_real%ref9 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref9%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref9%description (string) (7.9.2.1.4)
ref10 (1556)	reference%timed%zerod_real%ref10 (ref_t_0dr_ref) (7.9.2.1.223)
value (1557)	reference%timed%zerod_real%ref10%value (float) (7.9.2.1.2)
description (1557)	reference%timed%zerod_real%ref10%description (string) (7.9.2.1.4)
zerod_int (1553)	reference%timed%zerod_int (ref_t_0di) (7.9.2.1.220)

ref1 (1554)	reference%timed%zerod_int%ref1 (ref_t_0di_ref) (7.9.2.1.221)
value (1555)	reference%timed%zerod_int%ref1%value (integer) (7.9.2.1.3)
description (1555)	reference%timed%zerod_int%ref1%description (string) (7.9.2.1.4)
ref2 (1554)	reference%timed%zerod_int%ref2 (ref_t_0di_ref) (7.9.2.1.221)
value (1555)	reference%timed%zerod_int%ref2%value (integer) (7.9.2.1.3)
description (1555)	reference%timed%zerod_int%ref2%description (string) (7.9.2.1.4)
ref3 (1554)	reference%timed%zerod_int%ref3 (ref_t_0di_ref) (7.9.2.1.221)
value (1555)	reference%timed%zerod_int%ref3%value (integer) (7.9.2.1.3)
description (1555)	reference%timed%zerod_int%ref3%description (string) (7.9.2.1.4)
ref4 (1554)	reference%timed%zerod_int%ref4 (ref_t_0di_ref) (7.9.2.1.221)
value (1555)	reference%timed%zerod_int%ref4%value (integer) (7.9.2.1.3)
description (1555)	reference%timed%zerod_int%ref4%description (string) (7.9.2.1.4)
oned_real (1553)	reference%timed%oned_real (ref_t_1dr) (7.9.2.1.226)
ref1 (1560)	reference%timed%oned_real%ref1 (ref_t_1dr_ref) (7.9.2.1.227)
value (1561)	reference%timed%oned_real%ref1%value (vecflt_type) (7.9.2.1.14)
description (1561)	reference%timed%oned_real%ref1%description (string) (7.9.2.1.4)
ref2 (1560)	reference%timed%oned_real%ref2 (ref_t_1dr_ref) (7.9.2.1.227)
value (1561)	reference%timed%oned_real%ref2%value (vecflt_type) (7.9.2.1.14)
description (1561)	reference%timed%oned_real%ref2%description (string) (7.9.2.1.4)
ref3 (1560)	reference%timed%oned_real%ref3 (ref_t_1dr_ref) (7.9.2.1.227)
value (1561)	reference%timed%oned_real%ref3%value (vecflt_type) (7.9.2.1.14)
description (1561)	reference%timed%oned_real%ref3%description (string) (7.9.2.1.4)
ref4 (1560)	reference%timed%oned_real%ref4 (ref_t_1dr_ref) (7.9.2.1.227)
value (1561)	reference%timed%oned_real%ref4%value (vecflt_type) (7.9.2.1.14)
description (1561)	reference%timed%oned_real%ref4%description (string) (7.9.2.1.4)
ref5 (1560)	reference%timed%oned_real%ref5 (ref_t_1dr_ref) (7.9.2.1.227)
value (1561)	reference%timed%oned_real%ref5%value (vecflt_type) (7.9.2.1.14)
description (1561)	reference%timed%oned_real%ref5%description (string) (7.9.2.1.4)
oned_int (1553)	reference%timed%oned_int (ref_t_1di) (7.9.2.1.224)
ref1 (1558)	reference%timed%oned_int%ref1 (ref_t_1di_ref) (7.9.2.1.225)
value (1559)	reference%timed%oned_int%ref1%value (vecint_type) (7.9.2.1.15)
description (1559)	reference%timed%oned_int%ref1%description (string) (7.9.2.1.4)
ref2 (1558)	reference%timed%oned_int%ref2 (ref_t_1di_ref) (7.9.2.1.225)
value (1559)	reference%timed%oned_int%ref2%value (vecint_type) (7.9.2.1.15)
description (1559)	reference%timed%oned_int%ref2%description (string) (7.9.2.1.4)
ref3 (1558)	reference%timed%oned_int%ref3 (ref_t_1di_ref) (7.9.2.1.225)
value (1559)	reference%timed%oned_int%ref3%value (vecint_type) (7.9.2.1.15)
description (1559)	reference%timed%oned_int%ref3%description (string) (7.9.2.1.4)
ref4 (1558)	reference%timed%oned_int%ref4 (ref_t_1di_ref) (7.9.2.1.225)
value (1559)	reference%timed%oned_int%ref4%value (vecint_type) (7.9.2.1.15)
description (1559)	reference%timed%oned_int%ref4%description (string) (7.9.2.1.4)
time (1380)	reference%time (float) (7.9.2.1.2)

7.9.2.2.29 sawteeth

datainfo (1381)	sawteeth%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	sawteeth%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	sawteeth%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	sawteeth%datainfo%source (string) (7.9.2.1.4)
comment (1426)	sawteeth%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	sawteeth%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	sawteeth%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	sawteeth%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	sawteeth%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	sawteeth%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	sawteeth%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	sawteeth%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.2.1.4)

rights (1538)	sawteeth%datainfo%putinfo%rights (string) (7.9.2.1.4)
crash_trig (1381)	sawteeth%crash_trig (integer) (7.9.2.1.3)
composition (1381)	sawteeth%composition (composition) (7.9.2.1.76)
amn (1410)	sawteeth%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	sawteeth%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	sawteeth%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	sawteeth%composition%imp_flag (vecint_type) (7.9.2.1.15)
rho_tor_norm (1381)	sawteeth%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1381)	sawteeth%rho_tor (vecflt_type) (7.9.2.1.14)
profiles1d (1381)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.2.1.241)
ne (1575)	sawteeth%profiles1d%ne (vecflt_type) (7.9.2.1.14)
ni (1575)	sawteeth%profiles1d%ni (matflt_type) (7.9.2.1.12)
te (1575)	sawteeth%profiles1d%te (vecflt_type) (7.9.2.1.14)
ti (1575)	sawteeth%profiles1d%ti (matflt_type) (7.9.2.1.12)
psi (1575)	sawteeth%profiles1d%psi (vecflt_type) (7.9.2.1.14)
phi (1575)	sawteeth%profiles1d%phi (vecflt_type) (7.9.2.1.14)
psistar (1575)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.2.1.14)
volume (1575)	sawteeth%profiles1d%volume (vecflt_type) (7.9.2.1.14)
q (1575)	sawteeth%profiles1d%q (vecflt_type) (7.9.2.1.14)
diags (1381)	sawteeth%diags (sawteeth_diags) (7.9.2.1.240)
shear1 (1574)	sawteeth%diags%shear1 (float) (7.9.2.1.2)
rhotorn_q1 (1574)	sawteeth%diags%rhotorn_q1 (float) (7.9.2.1.2)
rhotorn_inv (1574)	sawteeth%diags%rhotorn_inv (float) (7.9.2.1.2)
rhotorn_mix (1574)	sawteeth%diags%rhotorn_mix (float) (7.9.2.1.2)
codeparam (1381)	sawteeth%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	sawteeth%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	sawteeth%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	sawteeth%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	sawteeth%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	sawteeth%codeparam%output_flag (integer) (7.9.2.1.3)
time (1381)	sawteeth%time (float) (7.9.2.1.2)

7.9.2.2.30 scenario

datainfo (1382)	scenario%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	scenario%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	scenario%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	scenario%datainfo%source (string) (7.9.2.1.4)
comment (1426)	scenario%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	scenario%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	scenario%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	scenario%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	scenario%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	scenario%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	scenario%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	scenario%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	scenario%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	scenario%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	scenario%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	scenario%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	scenario%datainfo%putinfo%rights (string) (7.9.2.1.4)
centre (1382)	scenario%centre (scenario_centre) (7.9.2.1.242)
te0 (1576)	scenario%centre%te0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%te0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%te0%source (string) (7.9.2.1.4)
ti0 (1576)	scenario%centre%ti0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%ti0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%ti0%source (string) (7.9.2.1.4)
ne0 (1576)	scenario%centre%ne0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%ne0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%ne0%source (string) (7.9.2.1.4)

ni0 (1576)	scenario%centre%ni0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%ni0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%ni0%source (string) (7.9.2.1.4)
shift0 (1576)	scenario%centre%shift0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%shift0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%shift0%source (string) (7.9.2.1.4)
psi0 (1576)	scenario%centre%psi0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%psi0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%psi0%source (string) (7.9.2.1.4)
phi0 (1576)	scenario%centre%phi0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%phi0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%phi0%source (string) (7.9.2.1.4)
q0 (1576)	scenario%centre%q0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%q0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%q0%source (string) (7.9.2.1.4)
Rmag (1576)	scenario%centre%Rmag (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%Rmag%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%Rmag%source (string) (7.9.2.1.4)
Zmag (1576)	scenario%centre%Zmag (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%Zmag%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%Zmag%source (string) (7.9.2.1.4)
vtor_0 (1576)	scenario%centre%vtor_0 (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%centre%vtor_0%value (float) (7.9.2.1.2)
source (1593)	scenario%centre%vtor_0%source (string) (7.9.2.1.4)
composition (1382)	scenario%composition (scenario_composition) (7.9.2.1.243)
amn (1577)	scenario%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1577)	scenario%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1577)	scenario%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1577)	scenario%composition%imp_flag (vecint_type) (7.9.2.1.15)
rot_imp_flag (1577)	scenario%composition%rot_imp_flag (vecint_type) (7.9.2.1.15)
pellet_amn (1577)	scenario%composition%pellet_amn (vecflt_type) (7.9.2.1.14)
pellet_zn (1577)	scenario%composition%pellet_zn (vecflt_type) (7.9.2.1.14)
nbi_amn (1577)	scenario%composition%nbi_amn (vecflt_type) (7.9.2.1.14)
nbi_zn (1577)	scenario%composition%nbi_zn (vecflt_type) (7.9.2.1.14)
configs (1382)	scenario%configs (scenario_configuration) (7.9.2.1.244)
config (1578)	scenario%configs%config (scenario_int) (7.9.2.1.251)
value (1585)	scenario%configs%config%value (integer) (7.9.2.1.3)
source (1585)	scenario%configs%config%source (string) (7.9.2.1.4)
lmode_sc (1578)	scenario%configs%lmode_sc (string) (7.9.2.1.4)
hmode_sc (1578)	scenario%configs%hmode_sc (string) (7.9.2.1.4)
core_sc (1578)	scenario%configs%core_sc (string) (7.9.2.1.4)
pedestal_sc (1578)	scenario%configs%pedestal_sc (string) (7.9.2.1.4)
helium_sc (1578)	scenario%configs%helium_sc (string) (7.9.2.1.4)
impurity_sc (1578)	scenario%configs%impurity_sc (string) (7.9.2.1.4)
l2h_sc (1578)	scenario%configs%l2h_sc (string) (7.9.2.1.4)
tor_rot_sc (1578)	scenario%configs%tor_rot_sc (string) (7.9.2.1.4)
wall_mat (1578)	scenario%configs%wall_mat (string) (7.9.2.1.4)
evap_mat (1578)	scenario%configs%evap_mat (string) (7.9.2.1.4)
lim_mat (1578)	scenario%configs%lim_mat (string) (7.9.2.1.4)
div_mat (1578)	scenario%configs%div_mat (string) (7.9.2.1.4)
coordinate (1578)	scenario%configs%coordinate (string) (7.9.2.1.4)
ecrh_freq (1578)	scenario%configs%ecrh_freq (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%ecrh_freq%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%ecrh_freq%source (string) (7.9.2.1.4)
ecrh_loc (1578)	scenario%configs%ecrh_loc (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%ecrh_loc%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%ecrh_loc%source (string) (7.9.2.1.4)
ecrh_mode (1578)	scenario%configs%ecrh_mode (scenario_int) (7.9.2.1.251)
value (1585)	scenario%configs%ecrh_mode%value (integer) (7.9.2.1.3)
source (1585)	scenario%configs%ecrh_mode%source (string) (7.9.2.1.4)
ecrh_tor_ang (1578)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.2.1.259)

value (1593)	scenario%configs%ecrh_tor_ang%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%ecrh_tor_ang%source (string) (7.9.2.1.4)
ecrh_pol_ang (1578)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%ecrh_pol_ang%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%ecrh_pol_ang%source (string) (7.9.2.1.4)
ecrh_harm (1578)	scenario%configs%ecrh_harm (scenario_int) (7.9.2.1.251)
value (1585)	scenario%configs%ecrh_harm%value (integer) (7.9.2.1.3)
source (1585)	scenario%configs%ecrh_harm%source (string) (7.9.2.1.4)
enbi (1578)	scenario%configs%enbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%enbi%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%enbi%source (string) (7.9.2.1.4)
r_nbi (1578)	scenario%configs%r_nbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%r_nbi%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%r_nbi%source (string) (7.9.2.1.4)
grad_b_drift (1578)	scenario%configs%grad_b_drift (scenario_int) (7.9.2.1.251)
value (1585)	scenario%configs%grad_b_drift%value (integer) (7.9.2.1.3)
source (1585)	scenario%configs%grad_b_drift%source (string) (7.9.2.1.4)
icrh_freq (1578)	scenario%configs%icrh_freq (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%icrh_freq%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%icrh_freq%source (string) (7.9.2.1.4)
icrh_scheme (1578)	scenario%configs%icrh_scheme (string) (7.9.2.1.4)
icrh_phase (1578)	scenario%configs%icrh_phase (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%icrh_phase%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%icrh_phase%source (string) (7.9.2.1.4)
LH_freq (1578)	scenario%configs%LH_freq (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%LH_freq%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%LH_freq%source (string) (7.9.2.1.4)
LH_npar (1578)	scenario%configs%LH_npar (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%LH_npar%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%LH_npar%source (string) (7.9.2.1.4)
pellet_ang (1578)	scenario%configs%pellet_ang (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%pellet_ang%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%pellet_ang%source (string) (7.9.2.1.4)
pellet_v (1578)	scenario%configs%pellet_v (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%pellet_v%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%pellet_v%source (string) (7.9.2.1.4)
pellet_nba (1578)	scenario%configs%pellet_nba (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%configs%pellet_nba%value (float) (7.9.2.1.2)
source (1593)	scenario%configs%pellet_nba%source (string) (7.9.2.1.4)
confinement (1382)	scenario%confinement (scenario_confinement) (7.9.2.1.245)
tau_e (1579)	scenario%confinement%tau_e (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_e%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_e%source (string) (7.9.2.1.4)
tau_l_sc (1579)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_l_sc%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_l_sc%source (string) (7.9.2.1.4)
tau_h_sc (1579)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_h_sc%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_h_sc%source (string) (7.9.2.1.4)
tau_he (1579)	scenario%confinement%tau_he (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_he%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_he%source (string) (7.9.2.1.4)
tau_e_ee (1579)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_e_ee%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_e_ee%source (string) (7.9.2.1.4)
tau_e_ii (1579)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_e_ii%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_e_ii%source (string) (7.9.2.1.4)
tau_e_ei (1579)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_e_ei%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_e_ei%source (string) (7.9.2.1.4)

tau_cur_diff (1579)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_cur_diff%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_cur_diff%source (string) (7.9.2.1.4)
tau_i_rol (1579)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%confinement%tau_i_rol%value (float) (7.9.2.1.2)
source (1593)	scenario%confinement%tau_i_rol%source (string) (7.9.2.1.4)
currents (1382)	scenario%currents (scenario_currents) (7.9.2.1.246)
RR (1580)	scenario%currents%RR (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%RR%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%RR%source (string) (7.9.2.1.4)
i_align (1580)	scenario%currents%i_align (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_align%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_align%source (string) (7.9.2.1.4)
i_boot (1580)	scenario%currents%i_boot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_boot%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_boot%source (string) (7.9.2.1.4)
i_cd_tot (1580)	scenario%currents%i_cd_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_cd_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_cd_tot%source (string) (7.9.2.1.4)
i_eccd (1580)	scenario%currents%i_eccd (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_eccd%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_eccd%source (string) (7.9.2.1.4)
i_fast_ion (1580)	scenario%currents%i_fast_ion (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_fast_ion%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_fast_ion%source (string) (7.9.2.1.4)
i_fwcd (1580)	scenario%currents%i_fwcd (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_fwcd%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_fwcd%source (string) (7.9.2.1.4)
i_lhcd (1580)	scenario%currents%i_lhcd (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_lhcd%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_lhcd%source (string) (7.9.2.1.4)
i_nbicd (1580)	scenario%currents%i_nbicd (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_nbicd%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_nbicd%source (string) (7.9.2.1.4)
i_ni_tot (1580)	scenario%currents%i_ni_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_ni_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_ni_tot%source (string) (7.9.2.1.4)
i_ohm (1580)	scenario%currents%i_ohm (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_ohm%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_ohm%source (string) (7.9.2.1.4)
i_par (1580)	scenario%currents%i_par (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_par%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_par%source (string) (7.9.2.1.4)
i_runaway (1580)	scenario%currents%i_runaway (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%i_runaway%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%i_runaway%source (string) (7.9.2.1.4)
v_loop (1580)	scenario%currents%v_loop (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%v_loop%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%v_loop%source (string) (7.9.2.1.4)
v_meas (1580)	scenario%currents%v_meas (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%currents%v_meas%value (float) (7.9.2.1.2)
source (1593)	scenario%currents%v_meas%source (string) (7.9.2.1.4)
edge (1382)	scenario%edge (scenario_edge) (7.9.2.1.247)
te_edge (1581)	scenario%edge%te_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%te_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%te_edge%source (string) (7.9.2.1.4)
ti_edge (1581)	scenario%edge%ti_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%ti_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%ti_edge%source (string) (7.9.2.1.4)
ne_edge (1581)	scenario%edge%ne_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%ne_edge%value (float) (7.9.2.1.2)

source (1593)	scenario%edge%ne_edge%source (string) (7.9.2.1.4)
ni_edge (1581)	scenario%edge%ni_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%ni_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%ni_edge%source (string) (7.9.2.1.4)
psi_edge (1581)	scenario%edge%psi_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%psi_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%psi_edge%source (string) (7.9.2.1.4)
phi_edge (1581)	scenario%edge%phi_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%phi_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%phi_edge%source (string) (7.9.2.1.4)
rho_edge (1581)	scenario%edge%rho_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%rho_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%rho_edge%source (string) (7.9.2.1.4)
drho_edge_dt (1581)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%drho_edge_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%drho_edge_dt%source (string) (7.9.2.1.4)
q_edge (1581)	scenario%edge%q_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%q_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%q_edge%source (string) (7.9.2.1.4)
neutral_flux (1581)	scenario%edge%neutral_flux (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%neutral_flux%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%neutral_flux%source (string) (7.9.2.1.4)
phi_plasma (1581)	scenario%edge%phi_plasma (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%phi_plasma%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%phi_plasma%source (string) (7.9.2.1.4)
vtor_edge (1581)	scenario%edge%vtor_edge (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%edge%vtor_edge%value (float) (7.9.2.1.2)
source (1593)	scenario%edge%vtor_edge%source (string) (7.9.2.1.4)
energy (1382)	scenario%energy (scenario_energy) (7.9.2.1.248)
w_tot (1582)	scenario%energy%w_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%w_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%w_tot%source (string) (7.9.2.1.4)
w_b_pol (1582)	scenario%energy%w_b_pol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%w_b_pol%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%w_b_pol%source (string) (7.9.2.1.4)
w_dia (1582)	scenario%energy%w_dia (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%w_dia%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%w_dia%source (string) (7.9.2.1.4)
dwdia_dt (1582)	scenario%energy%dwdia_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%dwdia_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%dwdia_dt%source (string) (7.9.2.1.4)
w_b_tor_pla (1582)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%w_b_tor_pla%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%w_b_tor_pla%source (string) (7.9.2.1.4)
w_th (1582)	scenario%energy%w_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%w_th%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%w_th%source (string) (7.9.2.1.4)
dwtot_dt (1582)	scenario%energy%dwtot_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%dwtot_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%dwtot_dt%source (string) (7.9.2.1.4)
dwbpol_dt (1582)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%dwbpol_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%dwbpol_dt%source (string) (7.9.2.1.4)
dwbtorpla_dt (1582)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%dwbtorpla_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%dwbtorpla_dt%source (string) (7.9.2.1.4)
dwth_dt (1582)	scenario%energy%dwth_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%dwth_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%dwth_dt%source (string) (7.9.2.1.4)
esup_icrhtot (1582)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_icrhtot%value (float) (7.9.2.1.2)

source (1593)	scenario%energy%esup_icrhtot%source (string) (7.9.2.1.4)
esup_icrhper (1582)	scenario%energy%esup_icrhper (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_icrhper%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%esup_icrhper%source (string) (7.9.2.1.4)
esup_nbitot (1582)	scenario%energy%esup_nbitot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_nbitot%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%esup_nbitot%source (string) (7.9.2.1.4)
esup_nbiperp (1582)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_nbiperp%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%esup_nbiperp%source (string) (7.9.2.1.4)
esup_lhcd (1582)	scenario%energy%esup_lhcd (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_lhcd%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%esup_lhcd%source (string) (7.9.2.1.4)
esup_alpha (1582)	scenario%energy%esup_alpha (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%energy%esup_alpha%value (float) (7.9.2.1.2)
source (1593)	scenario%energy%esup_alpha%source (string) (7.9.2.1.4)
eqgeometry (1382)	scenario%eqgeometry (eqgeometry) (7.9.2.1.126)
source (1460)	scenario%eqgeometry%source (string) (7.9.2.1.4)
boundarytype (1460)	scenario%eqgeometry%boundarytype (integer) (7.9.2.1.3)
boundary (1460)	scenario%eqgeometry%boundary (rz1D_npoints) (7.9.2.1.232)
r (1566)	scenario%eqgeometry%boundary%r (vecflt_type) (7.9.2.1.14)
z (1566)	scenario%eqgeometry%boundary%z (vecflt_type) (7.9.2.1.14)
npoints (1566)	scenario%eqgeometry%boundary%npoints (integer) (7.9.2.1.3)
geom_axis (1460)	scenario%eqgeometry%geom_axis (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%geom_axis%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%geom_axis%z (float) (7.9.2.1.2)
a_minor (1460)	scenario%eqgeometry%a_minor (float) (7.9.2.1.2)
elongation (1460)	scenario%eqgeometry%elongation (float) (7.9.2.1.2)
tria_upper (1460)	scenario%eqgeometry%tria_upper (float) (7.9.2.1.2)
tria_lower (1460)	scenario%eqgeometry%tria_lower (float) (7.9.2.1.2)
xpts (1460)	scenario%eqgeometry%xpts (rz1D) (7.9.2.1.231)
r (1565)	scenario%eqgeometry%xpts%r (vecflt_type) (7.9.2.1.14)
z (1565)	scenario%eqgeometry%xpts%z (vecflt_type) (7.9.2.1.14)
left_low_st (1460)	scenario%eqgeometry%left_low_st (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%left_low_st%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%left_low_st%z (float) (7.9.2.1.2)
right_low_st (1460)	scenario%eqgeometry%right_low_st (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%right_low_st%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%right_low_st%z (float) (7.9.2.1.2)
left_up_st (1460)	scenario%eqgeometry%left_up_st (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%left_up_st%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%left_up_st%z (float) (7.9.2.1.2)
right_up_st (1460)	scenario%eqgeometry%right_up_st (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%right_up_st%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%right_up_st%z (float) (7.9.2.1.2)
active_limit (1460)	scenario%eqgeometry%active_limit (rz0D) (7.9.2.1.230)
r (1564)	scenario%eqgeometry%active_limit%r (float) (7.9.2.1.2)
z (1564)	scenario%eqgeometry%active_limit%z (float) (7.9.2.1.2)
global_param (1382)	scenario%global_param (scenario_global) (7.9.2.1.249)
ip (1583)	scenario%global_param%ip (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%ip%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%ip%source (string) (7.9.2.1.4)
dip_dt (1583)	scenario%global_param%dip_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%dip_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%dip_dt%source (string) (7.9.2.1.4)
beta_pol (1583)	scenario%global_param%beta_pol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_pol%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_pol%source (string) (7.9.2.1.4)
beta_tor (1583)	scenario%global_param%beta_tor (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_tor%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_tor%source (string) (7.9.2.1.4)

beta_normal (1583)	scenario%global_param%beta_normal (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_normal%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_normal%source (string) (7.9.2.1.4)
li (1583)	scenario%global_param%li (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%li%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%li%source (string) (7.9.2.1.4)
volume (1583)	scenario%global_param%volume (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%volume%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%volume%source (string) (7.9.2.1.4)
area_pol (1583)	scenario%global_param%area_pol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%area_pol%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%area_pol%source (string) (7.9.2.1.4)
area_ext (1583)	scenario%global_param%area_ext (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%area_ext%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%area_ext%source (string) (7.9.2.1.4)
len_sepa (1583)	scenario%global_param%len_sepa (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%len_sepa%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%len_sepa%source (string) (7.9.2.1.4)
beta_pol_th (1583)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_pol_th%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_pol_th%source (string) (7.9.2.1.4)
beta_tor_th (1583)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_tor_th%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_tor_th%source (string) (7.9.2.1.4)
beta_n_th (1583)	scenario%global_param%beta_n_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%beta_n_th%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%beta_n_th%source (string) (7.9.2.1.4)
disruption (1583)	scenario%global_param%disruption (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%disruption%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%disruption%source (string) (7.9.2.1.4)
mode_h (1583)	scenario%global_param%mode_h (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%mode_h%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%mode_h%source (string) (7.9.2.1.4)
s_alpha (1583)	scenario%global_param%s_alpha (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%global_param%s_alpha%value (float) (7.9.2.1.2)
source (1593)	scenario%global_param%s_alpha%source (string) (7.9.2.1.4)
heat_power (1382)	scenario%heat_power (scenario_heat_power) (7.9.2.1.250)
plh (1584)	scenario%heat_power%plh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%plh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%plh%source (string) (7.9.2.1.4)
pohmic (1584)	scenario%heat_power%pohmic (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pohmic%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pohmic%source (string) (7.9.2.1.4)
picrh (1584)	scenario%heat_power%picrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%picrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%picrh%source (string) (7.9.2.1.4)
pecrh (1584)	scenario%heat_power%pecrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pecrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pecrh%source (string) (7.9.2.1.4)
pnbi (1584)	scenario%heat_power%pnbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pnbi%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pnbi%source (string) (7.9.2.1.4)
pnbi_co_cur (1584)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.2.1.4)
pnbi_counter (1584)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pnbi_counter%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pnbi_counter%source (string) (7.9.2.1.4)
plh_th (1584)	scenario%heat_power%plh_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%plh_th%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%plh_th%source (string) (7.9.2.1.4)

picrh_th (1584)	scenario%heat_power%picrh_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%picrh_th%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%picrh_th%source (string) (7.9.2.1.4)
pecrh_th (1584)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pecrh_th%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pecrh_th%source (string) (7.9.2.1.4)
pnbi_th (1584)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pnbi_th%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pnbi_th%source (string) (7.9.2.1.4)
ploss_icrh (1584)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%ploss_icrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%ploss_icrh%source (string) (7.9.2.1.4)
ploss_nbi (1584)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%ploss_nbi%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%ploss_nbi%source (string) (7.9.2.1.4)
pbrem (1584)	scenario%heat_power%pbrem (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pbrem%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pbrem%source (string) (7.9.2.1.4)
pcyclo (1584)	scenario%heat_power%pcyclo (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pcyclo%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pcyclo%source (string) (7.9.2.1.4)
prad (1584)	scenario%heat_power%prad (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%prad%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%prad%source (string) (7.9.2.1.4)
pdd_fus (1584)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pdd_fus%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pdd_fus%source (string) (7.9.2.1.4)
pei (1584)	scenario%heat_power%pei (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pei%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pei%source (string) (7.9.2.1.4)
pel_tot (1584)	scenario%heat_power%pel_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pel_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pel_tot%source (string) (7.9.2.1.4)
pel_fus (1584)	scenario%heat_power%pel_fus (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pel_fus%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pel_fus%source (string) (7.9.2.1.4)
pel_icrh (1584)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pel_icrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pel_icrh%source (string) (7.9.2.1.4)
pel_nbi (1584)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pel_nbi%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pel_nbi%source (string) (7.9.2.1.4)
pfus_dt (1584)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pfus_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pfus_dt%source (string) (7.9.2.1.4)
ploss_fus (1584)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%ploss_fus%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%ploss_fus%source (string) (7.9.2.1.4)
pfus_nbi (1584)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pfus_nbi%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pfus_nbi%source (string) (7.9.2.1.4)
pfus_th (1584)	scenario%heat_power%pfus_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pfus_th%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pfus_th%source (string) (7.9.2.1.4)
padd_tot (1584)	scenario%heat_power%padd_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%padd_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%padd_tot%source (string) (7.9.2.1.4)
pion_tot (1584)	scenario%heat_power%pion_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pion_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pion_tot%source (string) (7.9.2.1.4)
pion_fus (1584)	scenario%heat_power%pion_fus (scenario_ref) (7.9.2.1.259)

value (1593)	scenario%heat_power%pion_fus%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pion_fus%source (string) (7.9.2.1.4)
pion_icrh (1584)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pion_icrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pion_icrh%source (string) (7.9.2.1.4)
pion_nbi (1584)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pion_nbi%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pion_nbi%source (string) (7.9.2.1.4)
pioniz (1584)	scenario%heat_power%pioniz (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%pioniz%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%pioniz%source (string) (7.9.2.1.4)
ploss (1584)	scenario%heat_power%ploss (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%ploss%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%ploss%source (string) (7.9.2.1.4)
p_wth (1584)	scenario%heat_power%p_wth (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%p_wth%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%p_wth%source (string) (7.9.2.1.4)
p_w (1584)	scenario%heat_power%p_w (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%p_w%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%p_w%source (string) (7.9.2.1.4)
p_l2h_thr (1584)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%p_l2h_thr%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%p_l2h_thr%source (string) (7.9.2.1.4)
p_l2h_sc (1584)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%p_l2h_sc%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%p_l2h_sc%source (string) (7.9.2.1.4)
p_nbi_icrh (1584)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.2.1.2)
source (1593)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.2.1.4)
itb (1382)	scenario%itb (scenario_itb) (7.9.2.1.252)
q_min (1586)	scenario%itb%q_min (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%q_min%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%q_min%source (string) (7.9.2.1.4)
te_itb (1586)	scenario%itb%te_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%te_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%te_itb%source (string) (7.9.2.1.4)
ti_itb (1586)	scenario%itb%ti_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%ti_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%ti_itb%source (string) (7.9.2.1.4)
ne_itb (1586)	scenario%itb%ne_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%ne_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%ne_itb%source (string) (7.9.2.1.4)
ni_itb (1586)	scenario%itb%ni_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%ni_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%ni_itb%source (string) (7.9.2.1.4)
psi_itb (1586)	scenario%itb%psi_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%psi_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%psi_itb%source (string) (7.9.2.1.4)
phi_itb (1586)	scenario%itb%phi_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%phi_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%phi_itb%source (string) (7.9.2.1.4)
rho_itb (1586)	scenario%itb%rho_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%rho_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%rho_itb%source (string) (7.9.2.1.4)
h_itb (1586)	scenario%itb%h_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%h_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%h_itb%source (string) (7.9.2.1.4)
width_itb (1586)	scenario%itb%width_itb (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%itb%width_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%width_itb%source (string) (7.9.2.1.4)
vtor_itb (1586)	scenario%itb%vtor_itb (scenario_ref) (7.9.2.1.259)

value (1593)	scenario%itb%vtor_itb%value (float) (7.9.2.1.2)
source (1593)	scenario%itb%vtor_itb%source (string) (7.9.2.1.4)
itb_type (1586)	scenario%itb%itb_type (scenario_int) (7.9.2.1.251)
value (1585)	scenario%itb%itb_type%value (integer) (7.9.2.1.3)
source (1585)	scenario%itb%itb_type%source (string) (7.9.2.1.4)
lim_div_wall (1382)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.2.1.253)
te_lim_div (1587)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.2.1.4)
ti_lim_div (1587)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.2.1.4)
ne_lim_div (1587)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.2.1.4)
ni_lim_div (1587)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.2.1.4)
p_peak_div (1587)	scenario%lim_div_wall%p_peak_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%p_peak_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%p_peak_div%source (string) (7.9.2.1.4)
surf_temp (1587)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%surf_temp%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%surf_temp%source (string) (7.9.2.1.4)
p_lim_div (1587)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.2.1.4)
p_rad_div (1587)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.2.1.4)
wall_temp (1587)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%wall_temp%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%wall_temp%source (string) (7.9.2.1.4)
wall_state (1587)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%wall_state%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%wall_state%source (string) (7.9.2.1.4)
detach_state (1587)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%lim_div_wall%detach_state%value (float) (7.9.2.1.2)
source (1593)	scenario%lim_div_wall%detach_state%source (string) (7.9.2.1.4)
pump_flux (1587)	scenario%lim_div_wall%pump_flux (vecflt_type) (7.9.2.1.14)
line_ave (1382)	scenario%line_ave (scenario_line_ave) (7.9.2.1.254)
ne_line (1588)	scenario%line_ave%ne_line (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%line_ave%ne_line%value (float) (7.9.2.1.2)
source (1593)	scenario%line_ave%ne_line%source (string) (7.9.2.1.4)
zeff_line (1588)	scenario%line_ave%zeff_line (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%line_ave%zeff_line%value (float) (7.9.2.1.2)
source (1593)	scenario%line_ave%zeff_line%source (string) (7.9.2.1.4)
ne_zeff_line (1588)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%line_ave%ne_zeff_line%value (float) (7.9.2.1.2)
source (1593)	scenario%line_ave%ne_zeff_line%source (string) (7.9.2.1.4)
dne_line_dt (1588)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%line_ave%dne_line_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%line_ave%dne_line_dt%source (string) (7.9.2.1.4)
neutron (1382)	scenario%neutron (scenario_neutron) (7.9.2.1.255)
ndd_tot (1589)	scenario%neutron%ndd_tot (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%neutron%ndd_tot%value (float) (7.9.2.1.2)
source (1593)	scenario%neutron%ndd_tot%source (string) (7.9.2.1.4)
ndd_th (1589)	scenario%neutron%ndd_th (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%neutron%ndd_th%value (float) (7.9.2.1.2)
source (1593)	scenario%neutron%ndd_th%source (string) (7.9.2.1.4)
ndd_nbi_th (1589)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.2.1.259)

psi_ped (1591)	scenario%pedestal%psi_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%psi_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%psi_ped%source (string) (7.9.2.1.4)
phi_ped (1591)	scenario%pedestal%phi_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%phi_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%phi_ped%source (string) (7.9.2.1.4)
rho_ped (1591)	scenario%pedestal%rho_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%rho_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%rho_ped%source (string) (7.9.2.1.4)
q_ped (1591)	scenario%pedestal%q_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%q_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%q_ped%source (string) (7.9.2.1.4)
pressure_ped (1591)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%pressure_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%pressure_ped%source (string) (7.9.2.1.4)
vtor_ped (1591)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%pedestal%vtor_ped%value (float) (7.9.2.1.2)
source (1593)	scenario%pedestal%vtor_ped%source (string) (7.9.2.1.4)
references (1382)	scenario%references (scenario_references) (7.9.2.1.260)
plh (1594)	scenario%references%plh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%plh%value (float) (7.9.2.1.2)
source (1593)	scenario%references%plh%source (string) (7.9.2.1.4)
picrh (1594)	scenario%references%picrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%picrh%value (float) (7.9.2.1.2)
source (1593)	scenario%references%picrh%source (string) (7.9.2.1.4)
pecrh (1594)	scenario%references%pecrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%pecrh%value (float) (7.9.2.1.2)
source (1593)	scenario%references%pecrh%source (string) (7.9.2.1.4)
pnbi (1594)	scenario%references%pnbi (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%pnbi%value (float) (7.9.2.1.2)
source (1593)	scenario%references%pnbi%source (string) (7.9.2.1.4)
ip (1594)	scenario%references%ip (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%ip%value (float) (7.9.2.1.2)
source (1593)	scenario%references%ip%source (string) (7.9.2.1.4)
bvac_r (1594)	scenario%references%bvac_r (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%bvac_r%value (float) (7.9.2.1.2)
source (1593)	scenario%references%bvac_r%source (string) (7.9.2.1.4)
zeffl (1594)	scenario%references%zeffl (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%zeffl%value (float) (7.9.2.1.2)
source (1593)	scenario%references%zeffl%source (string) (7.9.2.1.4)
nbar (1594)	scenario%references%nbar (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%nbar%value (float) (7.9.2.1.2)
source (1593)	scenario%references%nbar%source (string) (7.9.2.1.4)
xecrh (1594)	scenario%references%xecrh (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%xecrh%value (float) (7.9.2.1.2)
source (1593)	scenario%references%xecrh%source (string) (7.9.2.1.4)
pol_flux (1594)	scenario%references%pol_flux (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%pol_flux%value (float) (7.9.2.1.2)
source (1593)	scenario%references%pol_flux%source (string) (7.9.2.1.4)
enhancement (1594)	scenario%references%enhancement (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%enhancement%value (float) (7.9.2.1.2)
source (1593)	scenario%references%enhancement%source (string) (7.9.2.1.4)
isotopic (1594)	scenario%references%isotopic (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%isotopic%value (float) (7.9.2.1.2)
source (1593)	scenario%references%isotopic%source (string) (7.9.2.1.4)
nbi_td_ratio (1594)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%references%nbi_td_ratio%value (float) (7.9.2.1.2)
source (1593)	scenario%references%nbi_td_ratio%source (string) (7.9.2.1.4)
reactor (1382)	scenario%reactor (scenario_reactor) (7.9.2.1.258)
pnetwork (1592)	scenario%reactor%pnetwork (float) (7.9.2.1.2)
sol (1382)	scenario%sol (scenario_sol) (7.9.2.1.261)

l_te_sol (1595)	scenario%sol%l_te_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_te_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_te_sol%source (string) (7.9.2.1.4)
l_ti_sol (1595)	scenario%sol%l_ti_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_ti_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_ti_sol%source (string) (7.9.2.1.4)
l_ne_sol (1595)	scenario%sol%l_ne_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_ne_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_ne_sol%source (string) (7.9.2.1.4)
l_ni_sol (1595)	scenario%sol%l_ni_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_ni_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_ni_sol%source (string) (7.9.2.1.4)
l_qe_sol (1595)	scenario%sol%l_qe_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_qe_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_qe_sol%source (string) (7.9.2.1.4)
l_qi_sol (1595)	scenario%sol%l_qi_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%l_qi_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%l_qi_sol%source (string) (7.9.2.1.4)
p_rad_sol (1595)	scenario%sol%p_rad_sol (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%sol%p_rad_sol%value (float) (7.9.2.1.2)
source (1593)	scenario%sol%p_rad_sol%source (string) (7.9.2.1.4)
gaz_puff (1595)	scenario%sol%gaz_puff (vecflt_type) (7.9.2.1.14)
vol_ave (1382)	scenario%vol_ave (scenario_vol_ave) (7.9.2.1.262)
te_ave (1596)	scenario%vol_ave%te_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%te_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%te_ave%source (string) (7.9.2.1.4)
ti_ave (1596)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%ti_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%ti_ave%source (string) (7.9.2.1.4)
ne_ave (1596)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%ne_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%ne_ave%source (string) (7.9.2.1.4)
dne_ave_dt (1596)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.2.1.4)
ni_ave (1596)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%ni_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%ni_ave%source (string) (7.9.2.1.4)
zeff_ave (1596)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%zeff_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%zeff_ave%source (string) (7.9.2.1.4)
ti_o_te_ave (1596)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.2.1.4)
meff_ave (1596)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%meff_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%meff_ave%source (string) (7.9.2.1.4)
pellet_flux (1596)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%pellet_flux%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%pellet_flux%source (string) (7.9.2.1.4)
nions_ave (1596)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.2.1.14)
omega_ave (1596)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.2.1.259)
value (1593)	scenario%vol_ave%omega_ave%value (float) (7.9.2.1.2)
source (1593)	scenario%vol_ave%omega_ave%source (string) (7.9.2.1.4)
codeparam (1382)	scenario%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	scenario%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	scenario%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	scenario%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	scenario%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	scenario%codeparam%output_flag (integer) (7.9.2.1.3)
time (1382)	scenario%time (float) (7.9.2.1.2)

7.9.2.2.31 summary

datainfo (1383)	summary%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	summary%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	summary%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	summary%datainfo%source (string) (7.9.2.1.4)
comment (1426)	summary%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	summary%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	summary%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	summary%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	summary%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	summary%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	summary%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	summary%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	summary%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	summary%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	summary%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	summary%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	summary%datainfo%putinfo%rights (string) (7.9.2.1.4)
ip (1383)	summary%ip (reduced) (7.9.2.1.207)
value (1541)	summary%ip%value (float) (7.9.2.1.2)
source (1541)	summary%ip%source (string) (7.9.2.1.4)
time (1541)	summary%ip%time (float) (7.9.2.1.2)
bvac_r (1383)	summary%bvac_r (reduced) (7.9.2.1.207)
value (1541)	summary%bvac_r%value (float) (7.9.2.1.2)
source (1541)	summary%bvac_r%source (string) (7.9.2.1.4)
time (1541)	summary%bvac_r%time (float) (7.9.2.1.2)
geom_axis_r (1383)	summary%geom_axis_r (reduced) (7.9.2.1.207)
value (1541)	summary%geom_axis_r%value (float) (7.9.2.1.2)
source (1541)	summary%geom_axis_r%source (string) (7.9.2.1.4)
time (1541)	summary%geom_axis_r%time (float) (7.9.2.1.2)
a_minor (1383)	summary%a_minor (reduced) (7.9.2.1.207)
value (1541)	summary%a_minor%value (float) (7.9.2.1.2)
source (1541)	summary%a_minor%source (string) (7.9.2.1.4)
time (1541)	summary%a_minor%time (float) (7.9.2.1.2)
elongation (1383)	summary%elongation (reduced) (7.9.2.1.207)
value (1541)	summary%elongation%value (float) (7.9.2.1.2)
source (1541)	summary%elongation%source (string) (7.9.2.1.4)
time (1541)	summary%elongation%time (float) (7.9.2.1.2)
tria_lower (1383)	summary%tria_lower (reduced) (7.9.2.1.207)
value (1541)	summary%tria_lower%value (float) (7.9.2.1.2)
source (1541)	summary%tria_lower%source (string) (7.9.2.1.4)
time (1541)	summary%tria_lower%time (float) (7.9.2.1.2)
tria_upper (1383)	summary%tria_upper (reduced) (7.9.2.1.207)
value (1541)	summary%tria_upper%value (float) (7.9.2.1.2)
source (1541)	summary%tria_upper%source (string) (7.9.2.1.4)
time (1541)	summary%tria_upper%time (float) (7.9.2.1.2)
tev (1383)	summary%tev (reduced) (7.9.2.1.207)
value (1541)	summary%tev%value (float) (7.9.2.1.2)
source (1541)	summary%tev%source (string) (7.9.2.1.4)
time (1541)	summary%tev%time (float) (7.9.2.1.2)
tiv (1383)	summary%tiv (reduced) (7.9.2.1.207)
value (1541)	summary%tiv%value (float) (7.9.2.1.2)
source (1541)	summary%tiv%source (string) (7.9.2.1.4)
time (1541)	summary%tiv%time (float) (7.9.2.1.2)
nev (1383)	summary%nev (reduced) (7.9.2.1.207)
value (1541)	summary%nev%value (float) (7.9.2.1.2)
source (1541)	summary%nev%source (string) (7.9.2.1.4)
time (1541)	summary%nev%time (float) (7.9.2.1.2)
zeffv (1383)	summary%zeffv (reduced) (7.9.2.1.207)
value (1541)	summary%zeffv%value (float) (7.9.2.1.2)
source (1541)	summary%zeffv%source (string) (7.9.2.1.4)

time (1541)	summary%zeffv%time (float) (7.9.2.1.2)
beta_pol (1383)	summary%beta_pol (reduced) (7.9.2.1.207)
value (1541)	summary%beta_pol%value (float) (7.9.2.1.2)
source (1541)	summary%beta_pol%source (string) (7.9.2.1.4)
time (1541)	summary%beta_pol%time (float) (7.9.2.1.2)
beta_tor (1383)	summary%beta_tor (reduced) (7.9.2.1.207)
value (1541)	summary%beta_tor%value (float) (7.9.2.1.2)
source (1541)	summary%beta_tor%source (string) (7.9.2.1.4)
time (1541)	summary%beta_tor%time (float) (7.9.2.1.2)
beta_normal (1383)	summary%beta_normal (reduced) (7.9.2.1.207)
value (1541)	summary%beta_normal%value (float) (7.9.2.1.2)
source (1541)	summary%beta_normal%source (string) (7.9.2.1.4)
time (1541)	summary%beta_normal%time (float) (7.9.2.1.2)
li (1383)	summary%li (reduced) (7.9.2.1.207)
value (1541)	summary%li%value (float) (7.9.2.1.2)
source (1541)	summary%li%source (string) (7.9.2.1.4)
time (1541)	summary%li%time (float) (7.9.2.1.2)
volume (1383)	summary%volume (reduced) (7.9.2.1.207)
value (1541)	summary%volume%value (float) (7.9.2.1.2)
source (1541)	summary%volume%source (string) (7.9.2.1.4)
time (1541)	summary%volume%time (float) (7.9.2.1.2)
area (1383)	summary%area (reduced) (7.9.2.1.207)
value (1541)	summary%area%value (float) (7.9.2.1.2)
source (1541)	summary%area%source (string) (7.9.2.1.4)
time (1541)	summary%area%time (float) (7.9.2.1.2)
main_ion1_z (1383)	summary%main_ion1_z (reduced) (7.9.2.1.207)
value (1541)	summary%main_ion1_z%value (float) (7.9.2.1.2)
source (1541)	summary%main_ion1_z%source (string) (7.9.2.1.4)
time (1541)	summary%main_ion1_z%time (float) (7.9.2.1.2)
main_ion1_a (1383)	summary%main_ion1_a (reduced) (7.9.2.1.207)
value (1541)	summary%main_ion1_a%value (float) (7.9.2.1.2)
source (1541)	summary%main_ion1_a%source (string) (7.9.2.1.4)
time (1541)	summary%main_ion1_a%time (float) (7.9.2.1.2)
main_ion2_z (1383)	summary%main_ion2_z (reduced) (7.9.2.1.207)
value (1541)	summary%main_ion2_z%value (float) (7.9.2.1.2)
source (1541)	summary%main_ion2_z%source (string) (7.9.2.1.4)
time (1541)	summary%main_ion2_z%time (float) (7.9.2.1.2)
main_ion2_a (1383)	summary%main_ion2_a (reduced) (7.9.2.1.207)
value (1541)	summary%main_ion2_a%value (float) (7.9.2.1.2)
source (1541)	summary%main_ion2_a%source (string) (7.9.2.1.4)
time (1541)	summary%main_ion2_a%time (float) (7.9.2.1.2)
impur1_z (1383)	summary%impur1_z (reduced) (7.9.2.1.207)
value (1541)	summary%impur1_z%value (float) (7.9.2.1.2)
source (1541)	summary%impur1_z%source (string) (7.9.2.1.4)
time (1541)	summary%impur1_z%time (float) (7.9.2.1.2)
impur1_a (1383)	summary%impur1_a (reduced) (7.9.2.1.207)
value (1541)	summary%impur1_a%value (float) (7.9.2.1.2)
source (1541)	summary%impur1_a%source (string) (7.9.2.1.4)
time (1541)	summary%impur1_a%time (float) (7.9.2.1.2)
time (1383)	summary%time (float) (7.9.2.1.2)

7.9.2.2.32 topinfo

dataprovider (1384)	topinfo%dataprovider (string) (7.9.2.1.4)
description (1384)	topinfo%description (string) (7.9.2.1.4)
firstputdate (1384)	topinfo%firstputdate (string) (7.9.2.1.4)
lastupdate (1384)	topinfo%lastupdate (string) (7.9.2.1.4)
source (1384)	topinfo%source (string) (7.9.2.1.4)
comment (1384)	topinfo%comment (string) (7.9.2.1.4)
dataversion (1384)	topinfo%dataversion (string) (7.9.2.1.4)
workflow (1384)	topinfo%workflow (string) (7.9.2.1.4)

entry (1384)	topinfo%entry (entry_def) (7.9.2.1.124)
user (1458)	topinfo%entry%user (string) (7.9.2.1.4)
machine (1458)	topinfo%entry%machine (string) (7.9.2.1.4)
shot (1458)	topinfo%entry%shot (integer) (7.9.2.1.3)
run (1458)	topinfo%entry%run (integer) (7.9.2.1.3)
parent_entry (1384)	topinfo%parent_entry (entry_def) (7.9.2.1.124)
user (1458)	topinfo%parent_entry%user (string) (7.9.2.1.4)
machine (1458)	topinfo%parent_entry%machine (string) (7.9.2.1.4)
shot (1458)	topinfo%parent_entry%shot (integer) (7.9.2.1.3)
run (1458)	topinfo%parent_entry%run (integer) (7.9.2.1.3)
mdinfo (1384)	topinfo%mdinfo (mdinfo) (7.9.2.1.169)
shot_min (1503)	topinfo%mdinfo%shot_min (integer) (7.9.2.1.3)
shot_max (1503)	topinfo%mdinfo%shot_max (integer) (7.9.2.1.3)
md_entry (1503)	topinfo%mdinfo%md_entry (entry_def) (7.9.2.1.124)
user (1458)	topinfo%mdinfo%md_entry%user (string) (7.9.2.1.4)
machine (1458)	topinfo%mdinfo%md_entry%machine (string) (7.9.2.1.4)
shot (1458)	topinfo%mdinfo%md_entry%shot (integer) (7.9.2.1.3)
run (1458)	topinfo%mdinfo%md_entry%run (integer) (7.9.2.1.3)

7.9.2.2.33 toroidfield

datainfo (1385)	toroidfield%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	toroidfield%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	toroidfield%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	toroidfield%datainfo%source (string) (7.9.2.1.4)
comment (1426)	toroidfield%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	toroidfield%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	toroidfield%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	toroidfield%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	toroidfield%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	toroidfield%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	toroidfield%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	toroidfield%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	toroidfield%datainfo%putinfo%rights (string) (7.9.2.1.4)
nturns (1385)	toroidfield%nturns (integer) (7.9.2.1.3)
ncoils (1385)	toroidfield%ncoils (integer) (7.9.2.1.3)
current (1385)	toroidfield%current (exp0D) (7.9.2.1.129)
value (1463)	toroidfield%current%value (float) (7.9.2.1.2)
abserror (1463)	toroidfield%current%abserror (float) (7.9.2.1.2)
relerror (1463)	toroidfield%current%relerror (float) (7.9.2.1.2)
bvac_r (1385)	toroidfield%bvac_r (exp0D) (7.9.2.1.129)
value (1463)	toroidfield%bvac_r%value (float) (7.9.2.1.2)
abserror (1463)	toroidfield%bvac_r%abserror (float) (7.9.2.1.2)
relerror (1463)	toroidfield%bvac_r%relerror (float) (7.9.2.1.2)
r0 (1385)	toroidfield%r0 (float) (7.9.2.1.2)
time (1385)	toroidfield%time (float) (7.9.2.1.2)

7.9.2.2.34 tsdiag

datainfo (1386)	tsdiag%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	tsdiag%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	tsdiag%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	tsdiag%datainfo%source (string) (7.9.2.1.4)
comment (1426)	tsdiag%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	tsdiag%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	tsdiag%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	tsdiag%datainfo%whatref%user (string) (7.9.2.1.4)

machine (1656)	tsdiag%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	tsdiag%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	tsdiag%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	tsdiag%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	tsdiag%datainfo%putinfo%rights (string) (7.9.2.1.4)
setup (1386)	tsdiag%setup (tssetup) (7.9.2.1.303)
position (1637)	tsdiag%setup%position (rz1D) (7.9.2.1.231)
r (1565)	tsdiag%setup%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	tsdiag%setup%position%z (vecflt_type) (7.9.2.1.14)
measure (1386)	tsdiag%measure (tsmeasure) (7.9.2.1.302)
te (1636)	tsdiag%measure%te (exp1D) (7.9.2.1.130)
value (1464)	tsdiag%measure%te%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	tsdiag%measure%te%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	tsdiag%measure%te%relerror (vecflt_type) (7.9.2.1.14)
ne (1636)	tsdiag%measure%ne (exp1D) (7.9.2.1.130)
value (1464)	tsdiag%measure%ne%value (vecflt_type) (7.9.2.1.14)
abserror (1464)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.2.1.14)
relerror (1464)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.2.1.14)
time (1386)	tsdiag%time (float) (7.9.2.1.2)

7.9.2.2.35 turbulence

datainfo (1387)	turbulence%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	turbulence%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	turbulence%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	turbulence%datainfo%source (string) (7.9.2.1.4)
comment (1426)	turbulence%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	turbulence%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	turbulence%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	turbulence%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	turbulence%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	turbulence%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	turbulence%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	turbulence%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	turbulence%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	turbulence%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	turbulence%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	turbulence%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	turbulence%datainfo%putinfo%rights (string) (7.9.2.1.4)
composition (1387)	turbulence%composition (composition) (7.9.2.1.76)
amn (1410)	turbulence%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	turbulence%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	turbulence%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	turbulence%composition%imp_flag (vecint_type) (7.9.2.1.15)
coordsys (1387)	turbulence%coordsys (turbcoordsys) (7.9.2.1.304)
grid_type (1638)	turbulence%coordsys%grid_type (string) (7.9.2.1.4)
turbgrid (1638)	turbulence%coordsys%turbgrid (turbgrid) (7.9.2.1.306)
dim1 (1640)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.2.1.14)
dim2 (1640)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.2.1.14)
dim3 (1640)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.2.1.14)
dim_v1 (1640)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.2.1.14)
dim_v2 (1640)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.2.1.14)
jacobian (1638)	turbulence%coordsys%jacobian (matflt_type) (7.9.2.1.12)
g_11 (1638)	turbulence%coordsys%g_11 (matflt_type) (7.9.2.1.12)
g_12 (1638)	turbulence%coordsys%g_12 (matflt_type) (7.9.2.1.12)
g_13 (1638)	turbulence%coordsys%g_13 (matflt_type) (7.9.2.1.12)
g_22 (1638)	turbulence%coordsys%g_22 (matflt_type) (7.9.2.1.12)

g_33 (1638)	turbulence%coordsys%g_33 (matflt_type) (7.9.2.1.12)
position (1638)	turbulence%coordsys%position (rzphi3D) (7.9.2.1.238)
r (1572)	turbulence%coordsys%position%r (array3dflt_type) (7.9.2.1.6)
z (1572)	turbulence%coordsys%position%z (array3dflt_type) (7.9.2.1.6)
phi (1572)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.2.1.6)
var0d (1387)	turbulence%var0d (turbvar0d) (7.9.2.1.308)
dtime_type (1642)	turbulence%var0d%dtime_type (string) (7.9.2.1.4)
dtime (1642)	turbulence%var0d%dtime (vecflt_type) (7.9.2.1.14)
en_exb (1642)	turbulence%var0d%en_exb (vecflt_type) (7.9.2.1.14)
en_mag (1642)	turbulence%var0d%en_mag (vecflt_type) (7.9.2.1.14)
en_el_th (1642)	turbulence%var0d%en_el_th (vecflt_type) (7.9.2.1.14)
en_ion_th (1642)	turbulence%var0d%en_ion_th (matflt_type) (7.9.2.1.12)
en_el_par (1642)	turbulence%var0d%en_el_par (vecflt_type) (7.9.2.1.14)
en_ion_par (1642)	turbulence%var0d%en_ion_par (matflt_type) (7.9.2.1.12)
en_tot (1642)	turbulence%var0d%en_tot (vecflt_type) (7.9.2.1.14)
fl_el (1642)	turbulence%var0d%fl_el (vecflt_type) (7.9.2.1.14)
fl_heatel (1642)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.2.1.14)
fl_ion (1642)	turbulence%var0d%fl_ion (matflt_type) (7.9.2.1.12)
fl_heation (1642)	turbulence%var0d%fl_heation (matflt_type) (7.9.2.1.12)
fl_magel (1642)	turbulence%var0d%fl_magel (vecflt_type) (7.9.2.1.14)
fl_magheatel (1642)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.2.1.14)
fl_magion (1642)	turbulence%var0d%fl_magion (matflt_type) (7.9.2.1.12)
flmagheation (1642)	turbulence%var0d%flmagheation (matflt_type) (7.9.2.1.12)
var1d (1387)	turbulence%var1d (turbvar1d) (7.9.2.1.309)
rho_tor_norm (1643)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.2.1.14)
phi (1643)	turbulence%var1d%phi (vecflt_type) (7.9.2.1.14)
er (1643)	turbulence%var1d%er (vecflt_type) (7.9.2.1.14)
vor (1643)	turbulence%var1d%vor (vecflt_type) (7.9.2.1.14)
apl (1643)	turbulence%var1d%apl (vecflt_type) (7.9.2.1.14)
jpl (1643)	turbulence%var1d%jpl (vecflt_type) (7.9.2.1.14)
ne (1643)	turbulence%var1d%ne (vecflt_type) (7.9.2.1.14)
te (1643)	turbulence%var1d%te (vecflt_type) (7.9.2.1.14)
ni (1643)	turbulence%var1d%ni (matflt_type) (7.9.2.1.12)
ti (1643)	turbulence%var1d%ti (matflt_type) (7.9.2.1.12)
ui (1643)	turbulence%var1d%ui (matflt_type) (7.9.2.1.12)
var2d (1387)	turbulence%var2d (turbvar2d) (7.9.2.1.310)
rho_tor_norm (1644)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.2.1.14)
theta (1644)	turbulence%var2d%theta (vecflt_type) (7.9.2.1.14)
phi (1644)	turbulence%var2d%phi (matflt_type) (7.9.2.1.12)
apl (1644)	turbulence%var2d%apl (matflt_type) (7.9.2.1.12)
jpl (1644)	turbulence%var2d%jpl (matflt_type) (7.9.2.1.12)
vor (1644)	turbulence%var2d%vor (matflt_type) (7.9.2.1.12)
ne (1644)	turbulence%var2d%ne (matflt_type) (7.9.2.1.12)
te (1644)	turbulence%var2d%te (matflt_type) (7.9.2.1.12)
ni (1644)	turbulence%var2d%ni (array3dflt_type) (7.9.2.1.6)
ti (1644)	turbulence%var2d%ti (array3dflt_type) (7.9.2.1.6)
ui (1644)	turbulence%var2d%ui (array3dflt_type) (7.9.2.1.6)
var3d (1387)	turbulence%var3d (turbvar3d) (7.9.2.1.311)
phi (1645)	turbulence%var3d%phi (array3dflt_type) (7.9.2.1.6)
vor (1645)	turbulence%var3d%vor (array3dflt_type) (7.9.2.1.6)
jpl (1645)	turbulence%var3d%jpl (array3dflt_type) (7.9.2.1.6)
ne (1645)	turbulence%var3d%ne (array3dflt_type) (7.9.2.1.6)
spec1d (1387)	turbulence%spec1d (turbspec1d) (7.9.2.1.307)
dim_spec (1641)	turbulence%spec1d%dim_spec (vecflt_type) (7.9.2.1.14)
phi (1641)	turbulence%spec1d%phi (vecflt_type) (7.9.2.1.14)
vor (1641)	turbulence%spec1d%vor (vecflt_type) (7.9.2.1.14)
b (1641)	turbulence%spec1d%b (vecflt_type) (7.9.2.1.14)
jpl (1641)	turbulence%spec1d%jpl (vecflt_type) (7.9.2.1.14)
ne (1641)	turbulence%spec1d%ne (vecflt_type) (7.9.2.1.14)
te (1641)	turbulence%spec1d%te (vecflt_type) (7.9.2.1.14)
ti (1641)	turbulence%spec1d%ti (matflt_type) (7.9.2.1.12)

fe (1641)	turbulence%spec1d%fe (vecflt_type) (7.9.2.1.14)
qe (1641)	turbulence%spec1d%qe (vecflt_type) (7.9.2.1.14)
qi (1641)	turbulence%spec1d%qi (matflt_type) (7.9.2.1.12)
me (1641)	turbulence%spec1d%me (vecflt_type) (7.9.2.1.14)
mi (1641)	turbulence%spec1d%mi (matflt_type) (7.9.2.1.12)
env1d (1387)	turbulence%env1d (turbenv1d) (7.9.2.1.305)
theta (1639)	turbulence%env1d%theta (vecflt_type) (7.9.2.1.14)
phi (1639)	turbulence%env1d%phi (vecflt_type) (7.9.2.1.14)
vor (1639)	turbulence%env1d%vor (vecflt_type) (7.9.2.1.14)
jpl (1639)	turbulence%env1d%jpl (vecflt_type) (7.9.2.1.14)
ne (1639)	turbulence%env1d%ne (vecflt_type) (7.9.2.1.14)
he (1639)	turbulence%env1d%he (vecflt_type) (7.9.2.1.14)
te (1639)	turbulence%env1d%te (vecflt_type) (7.9.2.1.14)
ni (1639)	turbulence%env1d%ni (matflt_type) (7.9.2.1.12)
ti (1639)	turbulence%env1d%ti (matflt_type) (7.9.2.1.12)
ui (1639)	turbulence%env1d%ui (matflt_type) (7.9.2.1.12)
fe (1639)	turbulence%env1d%fe (vecflt_type) (7.9.2.1.14)
qe (1639)	turbulence%env1d%qe (vecflt_type) (7.9.2.1.14)
qi (1639)	turbulence%env1d%qi (matflt_type) (7.9.2.1.12)
me (1639)	turbulence%env1d%me (vecflt_type) (7.9.2.1.14)
mi (1639)	turbulence%env1d%mi (matflt_type) (7.9.2.1.12)
codeparam (1387)	turbulence%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	turbulence%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	turbulence%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	turbulence%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	turbulence%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	turbulence%codeparam%output_flag (integer) (7.9.2.1.3)
time (1387)	turbulence%time (float) (7.9.2.1.2)

7.9.2.2.36 vessel

datainfo (1388)	vessel%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	vessel%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	vessel%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	vessel%datainfo%source (string) (7.9.2.1.4)
comment (1426)	vessel%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	vessel%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	vessel%datainfo%whatref (whatref) (7.9.2.1.322)
user (1656)	vessel%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	vessel%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	vessel%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	vessel%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	vessel%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	vessel%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	vessel%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	vessel%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	vessel%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	vessel%datainfo%putinfo%rights (string) (7.9.2.1.4)
position (1388)	vessel%position (rz1D) (7.9.2.1.231)
r (1565)	vessel%position%r (vecflt_type) (7.9.2.1.14)
z (1565)	vessel%position%z (vecflt_type) (7.9.2.1.14)

7.9.2.2.37 waves

datainfo (1389)	waves%datainfo (datainfo) (7.9.2.1.92)
dataprovider (1426)	waves%datainfo%dataprovider (string) (7.9.2.1.4)
putdate (1426)	waves%datainfo%putdate (string) (7.9.2.1.4)
source (1426)	waves%datainfo%source (string) (7.9.2.1.4)
comment (1426)	waves%datainfo%comment (string) (7.9.2.1.4)
isref (1426)	waves%datainfo%isref (integer) (7.9.2.1.3)
whatref (1426)	waves%datainfo%whatref (whatref) (7.9.2.1.322)

user (1656)	waves%datainfo%whatref%user (string) (7.9.2.1.4)
machine (1656)	waves%datainfo%whatref%machine (string) (7.9.2.1.4)
shot (1656)	waves%datainfo%whatref%shot (integer) (7.9.2.1.3)
run (1656)	waves%datainfo%whatref%run (integer) (7.9.2.1.3)
occurrence (1656)	waves%datainfo%whatref%occurrence (integer) (7.9.2.1.3)
putinfo (1426)	waves%datainfo%putinfo (putinfo) (7.9.2.1.204)
putmethod (1538)	waves%datainfo%putinfo%putmethod (string) (7.9.2.1.4)
putaccess (1538)	waves%datainfo%putinfo%putaccess (string) (7.9.2.1.4)
putlocation (1538)	waves%datainfo%putinfo%putlocation (string) (7.9.2.1.4)
rights (1538)	waves%datainfo%putinfo%rights (string) (7.9.2.1.4)
coherentwave (1389)	waves%coherentwave(:) (coherentwave) (7.9.2.1.75)
composition (1409)	waves%coherentwave(:)%composition (composition) (7.9.2.1.76)
amn (1410)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.2.1.14)
zn (1410)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.2.1.14)
zion (1410)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.2.1.14)
imp_flag (1410)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.2.1.15)
global_param (1409)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.2.1.315)
frequency (1649)	waves%coherentwave(:)%global_param%frequency (float) (7.9.2.1.2)
name (1649)	waves%coherentwave(:)%global_param%name (string) (7.9.2.1.4)
type (1649)	waves%coherentwave(:)%global_param%type (string) (7.9.2.1.4)
ntor (1649)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.2.1.15)
f_assumption (1649)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.2.1.15)
power_tot (1649)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.2.1.2)
p_frac_ntor (1649)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.2.1.14)
pow_i (1649)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.2.1.14)
pow_e (1649)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.2.1.2)
pow_ntor_i (1649)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.2.1.12)
pow_ntor_e (1649)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.2.1.14)
cur_tor (1649)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.2.1.2)
cur_tor_ntor (1649)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.2.1.14)
code_type (1649)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.2.1.3)
toroid_field (1649)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.2.1.63)
r0 (1397)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.2.1.2)
b0 (1397)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.2.1.2)
grid_1d (1409)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.2.1.316)
rho_tor_norm (1650)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.2.1.14)
rho_tor (1650)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.2.1.14)
psi (1650)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.2.1.14)
grid_2d (1409)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.2.1.317)
grid_type (1651)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.2.1.3)
rho_tor_norm (1651)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.2.1.12)
rho_tor (1651)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.2.1.12)
psi (1651)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.2.1.12)
theta (1651)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.2.1.12)
r (1651)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.2.1.12)
z (1651)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.2.1.12)
theta_info (1651)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.2.1.296)
angl_type (1630)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.2.1.3)
th2th_pol (1630)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.2.1.12)
profiles_1d (1409)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.2.1.318)
powd_tot (1652)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.2.1.14)
powd_e (1652)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.2.1.14)
powd_i (1652)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.2.1.12)
powd_ntor (1652)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.2.1.12)
powd_ntor_e (1652)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.2.1.12)
powd_ntor_i (1652)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.2.1.6)
curd_tor (1652)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.2.1.14)
curd_torntor (1652)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.2.1.12)
pow_tot (1652)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.2.1.14)
pow_e (1652)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.2.1.14)
pow_i (1652)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.2.1.12)

pow_ntor (1652)	waves%coherentwave(:)%profiles_1d%pow_ntor (array3dflt_type) (7.9.2.1.6)
pow_ntor_e (1652)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.2.1.12)
pow_ntor_i (1652)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.2.1.6)
curd_par (1652)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.2.1.14)
curd_parntor (1652)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.2.1.12)
cur_tor (1652)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.2.1.14)
cur_tor_ntor (1652)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.2.1.12)
profiles_2d (1409)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.2.1.319)
powd_tot (1653)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.2.1.12)
powd_e (1653)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.2.1.12)
powd_i (1653)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.2.1.6)
powd_ntor (1653)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.2.1.6)
powd_ntor_e (1653)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.2.1.6)
powd_ntor_i (1653)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.2.1.8)
powd_iharm (1653)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.2.1.9)
beamtracing (1409)	waves%coherentwave(:)%beamtracing (beamtracing) (7.9.2.1.65)
npoints (1399)	waves%coherentwave(:)%beamtracing%npoints (vecint_type) (7.9.2.1.15)
power (1399)	waves%coherentwave(:)%beamtracing%power (vecflt_type) (7.9.2.1.14)
dnpar (1399)	waves%coherentwave(:)%beamtracing%dnpar (matflt_type) (7.9.2.1.12)
length (1399)	waves%coherentwave(:)%beamtracing%length (matflt_type) (7.9.2.1.12)
position (1399)	waves%coherentwave(:)%beamtracing%position (waves_rtposition) (7.9.2.1.320)
r (1654)	waves%coherentwave(:)%beamtracing%position%r (matflt_type) (7.9.2.1.12)
z (1654)	waves%coherentwave(:)%beamtracing%position%z (matflt_type) (7.9.2.1.12)
psi (1654)	waves%coherentwave(:)%beamtracing%position%psi (matflt_type) (7.9.2.1.12)
theta (1654)	waves%coherentwave(:)%beamtracing%position%theta (matflt_type) (7.9.2.1.12)
phi (1654)	waves%coherentwave(:)%beamtracing%position%phi (matflt_type) (7.9.2.1.12)
wavevector (1399)	waves%coherentwave(:)%beamtracing%wavevector (waves_rtwavevector) (7.9.2.1.321)
kr (1655)	waves%coherentwave(:)%beamtracing%wavevector%kr (matflt_type) (7.9.2.1.12)
kz (1655)	waves%coherentwave(:)%beamtracing%wavevector%kz (matflt_type) (7.9.2.1.12)
npar (1655)	waves%coherentwave(:)%beamtracing%wavevector%npar (matflt_type) (7.9.2.1.12)
nperp (1655)	waves%coherentwave(:)%beamtracing%wavevector%nperp (matflt_type) (7.9.2.1.12)
ntor (1655)	waves%coherentwave(:)%beamtracing%wavevector%ntor (matflt_type) (7.9.2.1.12)
var_ntor (1655)	waves%coherentwave(:)%beamtracing%wavevector%var_ntor (integer) (7.9.2.1.3)
polarization (1399)	waves%coherentwave(:)%beamtracing%polarization (polarization) (7.9.2.1.196)
epol_p (1530)	waves%coherentwave(:)%beamtracing%polarization%epol_p (matflt_type) (7.9.2.1.12)
epol_m (1530)	waves%coherentwave(:)%beamtracing%polarization%epol_m (matflt_type) (7.9.2.1.12)
epol_par (1530)	waves%coherentwave(:)%beamtracing%polarization%epol_par (matflt_type) (7.9.2.1.12)
powerflow (1399)	waves%coherentwave(:)%beamtracing%powerflow (powerflow) (7.9.2.1.197)
phi_perp (1531)	waves%coherentwave(:)%beamtracing%powerflow%phi_perp (matflt_type) (7.9.2.1.12)
phi_par (1531)	waves%coherentwave(:)%beamtracing%powerflow%phi_par (matflt_type) (7.9.2.1.12)
power_e (1531)	waves%coherentwave(:)%beamtracing%powerflow%power_e (matflt_type) (7.9.2.1.12)
power_i (1531)	waves%coherentwave(:)%beamtracing%powerflow%power_i (array3dflt_type) (7.9.2.1.6)
fullwave (1409)	waves%coherentwave(:)%fullwave (fullwave) (7.9.2.1.138)
pol_decomp (1472)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.2.1.195)
mpol (1529)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.2.1.15)
e_plus (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.2.1.6)
e_plus_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.2.1.6)
e_minus (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.2.1.6)
e_minus_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.2.1.6)
e_norm (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.2.1.6)
e_norm_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.2.1.6)
e_binorm (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.2.1.6)
e_binorm_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.2.1.6)
e_para (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.2.1.6)
e_para_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.2.1.6)
b_norm (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.2.1.6)
b_norm_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.2.1.6)
b_binorm (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.2.1.6)
b_binorm_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array4dflt_type) (7.9.2.1.8)
b_para (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.2.1.6)
b_para_ph (1529)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.2.1.6)

local (1472)	waves%coherentwave(:)%fullwave%local (local) (7.9.2.1.165)
e_plus (1499)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.2.1.6)
e_plus_ph (1499)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.2.1.6)
e_minus (1499)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.2.1.6)
e_minus_ph (1499)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.2.1.6)
e_norm (1499)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.2.1.7)
enorm_ph (1499)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.2.1.6)
e_binorm (1499)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.2.1.6)
e_binorm_ph (1499)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.2.1.6)
e_para (1499)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.2.1.6)
e_para_ph (1499)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.2.1.6)
b_norm (1499)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.2.1.6)
b_norm_ph (1499)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.2.1.6)
b_binorm (1499)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.2.1.6)
b_binorm_ph (1499)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.2.1.6)
b_para (1499)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.2.1.6)
b_para_ph (1499)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.2.1.6)
codeparam (1409)	waves%coherentwave(:)%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	waves%coherentwave(:)%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.2.1.3)
codeparam (1389)	waves%codeparam (codeparam) (7.9.2.1.73)
codename (1407)	waves%codeparam%codename (string) (7.9.2.1.4)
codeversion (1407)	waves%codeparam%codeversion (string) (7.9.2.1.4)
parameters (1407)	waves%codeparam%parameters (string) (7.9.2.1.4)
output_diag (1407)	waves%codeparam%output_diag (string) (7.9.2.1.4)
output_flag (1407)	waves%codeparam%output_flag (integer) (7.9.2.1.3)
time (1389)	waves%time (float) (7.9.2.1.2)

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7.9.3 4.09a

7.9.3.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.3.1.1 Primitive Types

Clear definitions required.

7.9.3.1.2 float

7.9.3.1.3 integer

7.9.3.1.4 string

7.9.3.1.5 Array Types

Clear definitions required.

7.9.3.1.6 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

[558] https://www.efda-itm.eu/ITM/html/cpoinstances__4.08b.html

7.9.3.1.7 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.3.1.8 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.3.1.9 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.3.1.10 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.3.1.11 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.3.1.12 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.3.1.13 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.3.1.14 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.3.1.15 vecint_type

Example: [1,2,3]

7.9.3.1.16 vecstring_type

Example: [”aaa”,”bb”,”cccc”]

7.9.3.1.17 Structure Types

7.9.3.1.18 CPO Structures

7.9.3.1.19 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
version	string (7.9.3.1.4)	Version of the data.
source	string (7.9.3.1.4)	Source of the data.
zn	integer (7.9.3.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.3.1.2)	Mass of atom [amu]
zion	vecint_type (7.9.3.1.15)	Ion charge [units of elementary charge]. If negative value, means it is a bundle of charge state which cannot be described as single value. Vector of integers (nchargestates)
state_label	vecstring_type (7.9.3.1.16)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
bundled	integer (7.9.3.1.3)	Flag indicating bundling status. Integer flag: 0=no bundling.
proc_label	vecstring_type (7.9.3.1.16)	Label for process (e.g. EI, RC; could also include error estimates); Vector(nprocs)
tables	tables (7.9.3.1.316)	Rate tables for processes. Vector(nprocs)
tables_coord	tables_coord (7.9.3.1.317)	Array of possible coordinate systems for tables. Vector(ncoordbases)

7.9.3.1.20 antennas

RF antenna list. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
antenna_unit	antenna_unit (7.9.3.1.61)	Vector of antennas. Each antenna should include information about one (and only one) of the three possible types; EC, LH and IC. Time-dependent. Array of structures(nantenna)
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.21 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
delta_psi	vecflt_type (7.9.3.1.14)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.3.1.14)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.3.1.12)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.3.1.6)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.3.1.14)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.3.1.12)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.3.1.6)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.3.1.12)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.22 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into ”bundles”. Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.3.1.15)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.3.1.110)	Description of the impurities (list of ion species and possibly different charge states)
z	array3dflt_type (7.9.3.1.6)	Impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
zsq	array3dflt_type (7.9.3.1.6)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array3D (nrho,nimp,max_nzimp)
nz	array3dflt_type (7.9.3.1.6)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source_term	sourceimp (7.9.3.1.304)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.3.1.71)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.3.1.104)	Transport coefficients for each charge state
flux	fluximp (7.9.3.1.166)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	array3dflt_type (7.9.3.1.6)	Integral of the time derivative term of the transport equation. Time-dependent. Array3D (nrho,nimp,max_nzimp)
atomic_data	vecstring_type (7.9.3.1.16)	Reference for the atomic data used for each impurity. Array of strings (nimp)
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar.

member	type	description
codeparam	codeparam (7.9.3.1.75)	Code parameters

7.9.3.1.23 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition_neutrals (7.9.3.1.92)	Description of neutrals species
profiles	profiles_neutrals (7.9.3.1.230)	Profiles derived from the fields solved in the transport equations, or from experiment.
coefficients	coefficients_neutrals (7.9.3.1.76)	Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.24 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.3.1.14)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.3.1.322)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
psi	psi (7.9.3.1.231)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.3.1.95)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.3.1.96)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.3.1.95)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.3.1.96)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.3.1.96)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.3.1.227)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.3.1.171)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.25 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
toroid_field	b0r0 (7.9.3.1.65)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of j in this CPO.
j	vecflt_type (7.9.3.1.14)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.

member	type	description
sigma	vecflt_type (7.9.3.1.14)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.3.1.301)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_el (7.9.3.1.298)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz	source_imp (7.9.3.1.300)	Particle source for impurity density transport equation [m^-3.s^-1]. Time-dependent.
qi	source_ion (7.9.3.1.301)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_el (7.9.3.1.298)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz	source_imp (7.9.3.1.300)	Heat source for impurity heat transport equations [W.m^-3]. Time-dependent.
ui	source_ion (7.9.3.1.301)	Velocity source for toroidal velocity transport equation [kg.m^-1.s^-2]. Vector(nrho). Time-dependent.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.26 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
sigma	vecflt_type (7.9.3.1.14)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.3.1.203)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.3.1.201)	Transport coefficients for electron density equation. Time-dependent.
nz_transp	transcoefimp (7.9.3.1.324)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.3.1.325)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.3.1.323)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp	transcoefimp (7.9.3.1.324)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.3.1.326)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.27 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
setup	cxsetup (7.9.3.1.108)	diagnostic setup information
measure	cxmeasure (7.9.3.1.107)	Measured values
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.28 distribution

Distribution function for electron and ion species. Normally output from a Fokker-Planck calculation; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
distri_vec	distri_vec (7.9.3.1.136)	Vector over all distribution functions; Time-dependent. Structure array(ndist_spec)
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.29 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
source	distsource_source (7.9.3.1.140)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; scalar

7.9.3.1.30 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
setup	ecesetup (7.9.3.1.143)	diagnostic setup information
measure	ecemeasure (7.9.3.1.142)	Measured values
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.31 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
grid	complexgrid (7.9.3.1.78)	Grid description
species	species_desc (7.9.3.1.307)	Description of ion species. Array of structures(nspecies)
fluid	edge_fluid (7.9.3.1.144)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.3.1.150)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.32 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
eqconstraint	eqconstraint (7.9.3.1.155)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.3.1.156)	Geometry of the plasma boundary
flush	flush (7.9.3.1.163)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.3.1.170)	0d output parameters
profiles_1d	profiles_1d (7.9.3.1.228)	output profiles as a function of the poloidal flux
profiles_2d	profiles_2d (7.9.3.1.229)	output profiles in the poloidal plane
coord_sys	coord_sys (7.9.3.1.93)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.3.1.75)	Code parameters

7.9.3.1.33 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
source	source (7.9.3.1.297)	Source. Time-dependent. Structure array. Replicate this source structure for each neutron or gamma with a particular energy.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.34 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
expression	string (7.9.3.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.3.1.295)	Geometric description of the lines of sight
measure	exp1D (7.9.3.1.160)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.35 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
desc_iron	desc_iron (7.9.3.1.111)	Description of the iron segments
magnetise	magnetise (7.9.3.1.190)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.36 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
potential	lang_measure (7.9.3.1.178)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.3.1.178)	Biasing potential [V]. All children are vectors(bias)
jsat	lang_measure (7.9.3.1.178)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.3.1.177)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.3.1.177)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.3.1.177)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.37 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
name	vecstring_type (7.9.3.1.16)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.3.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.3.1.14)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.3.1.15)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.3.1.264)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.3.1.308)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.3.1.182)	Beam characteristics
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.38 limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item

member	type	description
limiter_unit	limiter_unit (7.9.3.1.185)	Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

7.9.3.1.39 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
ip	exp0D (7.9.3.1.159)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.3.1.159)	Diamagnetic flux [Wb]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.3.1.164)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.3.1.73)	Poloidal field probes
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.40 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
n	vecint_type (7.9.3.1.15)	Toroidal mode number; Time-dependent; Vector (nn)
frequency	vecflt_type (7.9.3.1.14)	Frequency of the mode [Hz]; Time-dependent; Vector (nn)
growthrate	vecflt_type (7.9.3.1.14)	Linear growthrate of the mode [Hz]; Time-dependent; Vector (nn)
plasma	mhd_plasma (7.9.3.1.193)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.3.1.195)	External modes
walls	mhd_walls2d (7.9.3.1.197)	2D Walls
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.3.1.75)	Code parameters

7.9.3.1.41 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
setup_mse	setup_mse (7.9.3.1.296)	diagnostic setup information
measure	exp1D (7.9.3.1.160)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.42 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
nbi_unit	nbi_unit (7.9.3.1.200)	Injector unit. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.43 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)

member	type	description
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
ni_neo	transcoefion (7.9.3.1.325)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.3.1.323)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo	transcoefimp (7.9.3.1.324)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.3.1.325)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.3.1.323)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo	transcoefimp (7.9.3.1.324)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.3.1.323)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.3.1.14)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.3.1.14)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.3.1.14)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.3.1.12)	Neoclassical poloidal rotation of for each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.3.1.6)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.3.1.14)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.3.1.75)	Code parameters

7.9.3.1.44 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
orbitt_id	orbitt_id (7.9.3.1.211)	Parameters identifying an orbit
orb_trace	orb_trace (7.9.3.1.209)	Position of particle in 5D space (3D in real and 2D in velocity).
orb_glob_dat	orb_glob_dat (7.9.3.1.208)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.45 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
pfcoils	pfcoils (7.9.3.1.215)	Active poloidal field coils
pfpassive	pfpassive (7.9.3.1.219)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.3.1.214)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.3.1.220)	PF power supplies
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.46 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
expression	string (7.9.3.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.3.1.295)	Geometric description of the lines of sight
measure	exp1D (7.9.3.1.160)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.47 reference

Set of generic reference signals (for input e.g. to a controller); Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
non_timed	ref_nt (7.9.3.1.236)	Time-independent references (parameters)
timed	ref_t (7.9.3.1.247)	Time-dependent references
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.48 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
crash_trig	integer (7.9.3.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.3.1.270)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.3.1.269)	NO DOCS
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.49 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
centre	scenario_centre (7.9.3.1.271)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.3.1.272)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.3.1.273)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.3.1.274)	characteristic confinement times
currents	scenario_currents (7.9.3.1.275)	data related to current sources and current diffusion
edge	scenario_edge (7.9.3.1.276)	edge value (@ LCMS)
energy	scenario_energy (7.9.3.1.277)	plasma energy content
eqgeometry	eqgeometry (7.9.3.1.156)	Geometry of the plasma boundary
global_param	scenario_global (7.9.3.1.278)	Global scalar values
heat_power	scenario_heat_power (7.9.3.1.279)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.3.1.281)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.3.1.282)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.3.1.283)	line averaged value
neutron	scenario_neutron (7.9.3.1.284)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.3.1.285)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.3.1.286)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.3.1.289)	References
reactor	scenario_reactor (7.9.3.1.287)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.3.1.290)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.3.1.291)	volume averaged value

member	type	description
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.50 summary

Set of reduced data summarising the main simulation parameters for the data base catalogue. CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
ip	reduced (7.9.3.1.235)	Plasma current [A]
bvac_r	reduced (7.9.3.1.235)	Vacuum field times radius in the toroidal field magnet [T.m];
geom_axis_r	reduced (7.9.3.1.235)	Major radius of the geometric axis [m]
a_minor	reduced (7.9.3.1.235)	Minor radius of the plasma boundary [m]
elongation	reduced (7.9.3.1.235)	Elongation of the plasma boundary [m]
tria_lower	reduced (7.9.3.1.235)	Lower triangularity of the plasma boundary [m]
tria_upper	reduced (7.9.3.1.235)	Upper triangularity of the plasma boundary [m]
tev	reduced (7.9.3.1.235)	volume averaged electron temperature [eV]
tiv	reduced (7.9.3.1.235)	volume averaged ion temperature [eV]
nev	reduced (7.9.3.1.235)	volume averaged electron density [m^-3]
zeffv	reduced (7.9.3.1.235)	volume averaged effective charge
beta_pol	reduced (7.9.3.1.235)	poloidal beta
beta_tor	reduced (7.9.3.1.235)	toroidal beta
beta_normal	reduced (7.9.3.1.235)	normalised beta
li	reduced (7.9.3.1.235)	internal inductance
volume	reduced (7.9.3.1.235)	total plasma volume [m^3]
area	reduced (7.9.3.1.235)	area poloidal cross section [m^2]
main_ion1_z	reduced (7.9.3.1.235)	Atomic number of the main ion #1 [a.m.u.]
main_ion1_a	reduced (7.9.3.1.235)	Atomic mass of the main ion #1 [a.m.u.]
main_ion2_z	reduced (7.9.3.1.235)	Atomic number of the main ion #2 [a.m.u.]
main_ion2_a	reduced (7.9.3.1.235)	Atomic mass of the main ion #2 [a.m.u.]
impur1_z	reduced (7.9.3.1.235)	Atomic number of the impurity #1 [a.m.u.]
impur1_a	reduced (7.9.3.1.235)	Atomic mass of the impurity #1 [a.m.u.]
time	float (7.9.3.1.2)	Time at which the 0D variables of the summary are taken [s]. Scalar

7.9.3.1.51 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.3.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.3.1.4)	Pulse/Entry description
firstputdate	string (7.9.3.1.4)	Date of the original data submission
lastupdate	string (7.9.3.1.4)	Date of the last data addition in the tree
source	string (7.9.3.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.3.1.4)	Any additional comment
dataversion	string (7.9.3.1.4)	Version of the data structure
workflow	string (7.9.3.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.3.1.154)	Definition of this database entry
parent_entry	entry_def (7.9.3.1.154)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.3.1.191)	Information related to machine description for this entry

7.9.3.1.52 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.3.1.318)	Description of the toroidal field coils
nturns	integer (7.9.3.1.3)	Number of total turns in the toroidal field coil

member	type	description
ncoils	integer (7.9.3.1.3)	Number of packets of coils
current	exp0D (7.9.3.1.159)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.3.1.159)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.3.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.3.1.2)	Time [s]; Time-dependent. Scalar.

7.9.3.1.53 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
setup	tssetup (7.9.3.1.328)	diagnostic setup information
measure	tsmeasure (7.9.3.1.327)	Measured values
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.54 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
composition	turbcomposition (7.9.3.1.329)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.3.1.330)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.3.1.334)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.3.1.335)	Dependent variable radial profile.
var2d	turbvar2d (7.9.3.1.336)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.3.1.337)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.3.1.338)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.
var5d	turbvar5d (7.9.3.1.339)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.3.1.333)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.3.1.331)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar.

7.9.3.1.55 vessel

Mechanical structure of the vacuum vessel. CPO.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
position	rz1D (7.9.3.1.259)	Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints)

7.9.3.1.56 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
coherentwave	coherentwave (7.9.3.1.77)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.3.1.75)	Code parameters
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.57 Utility Structures

7.9.3.1.58 antenna_ec

Electron Cyclotron antenna

member	type	description
name	string (7.9.3.1.4)	Antenna name
frequency	float (7.9.3.1.2)	Frequency [Hz]
power	exp0D (7.9.3.1.159)	Power [W]; Time-dependent
mode	integer (7.9.3.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.3.1.263)	Reference global position of the last mirror; Time-dependent
launchangles	launchangles (7.9.3.1.179)	Launching angles of the beam
beam	rfbeam (7.9.3.1.257)	Beam characteristics

Type of: antenna_unit:antenna_ec (1735)

7.9.3.1.59 antenna_ic

Ion Cyclotron antenna

member	type	description
name	string (7.9.3.1.4)	Antenna name; String
frequency	exp0D (7.9.3.1.159)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.3.1.159)	Power [W]; Time-dependent; Exp0d
setup	antennaic_setup (7.9.3.1.62)	Detailed description of IC antennas

Type of: antenna_unit:antenna_ic (1735)

7.9.3.1.60 antenna_lh

Lower Hybrid antenna

member	type	description
name	string (7.9.3.1.4)	Antenna name, String
frequency	float (7.9.3.1.2)	Frequency [Hz]
power	exp0D (7.9.3.1.159)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.3.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.3.1.263)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.3.1.63)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.3.1.223)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.3.1.257)	Beam characteristics

Type of: antenna_unit:antenna_lh (1735)

7.9.3.1.61 antenna_unit

Vector of antennas. Each antenna should include information about one (and only one) of the three possible types; EC, LH and IC. Time-dependent. Array of structures(nantenna)

member	type	description
antenna_ec	antenna_ec (7.9.3.1.58)	Electron Cyclotron antenna
antenna_ic	antenna_ic (7.9.3.1.59)	Ion Cyclotron antenna
antenna_lh	antenna_lh (7.9.3.1.60)	Lower Hybrid antenna
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: antennas:antenna_unit (1695)

7.9.3.1.62 antennaic_setup

Detailed description of ICRH antennas

member	type	description
straps	straps (7.9.3.1.314)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

Type of: antenna_ic:setup (1733)

7.9.3.1.63 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.3.1.199)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (1734)

7.9.3.1.64 atomlist

List of the atoms that enter the composition of the neutral species

member	type	description
amn	vecflt_type (7.9.3.1.14)	Atomic mass number; Vector (natm)
zn	vecflt_type (7.9.3.1.14)	Nuclear charge; Vector (natm)

Type of: composition_neutrals:atomlist (1766)

7.9.3.1.65 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.3.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.3.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: coresource:toroid_field (1700) I global_param:toroid_field (1844) I waves_global_param:toroid_field (2017)

7.9.3.1.66 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.3.1.264)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.3.1.14)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.3.1.14)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.3.1.14)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: setup_inject:beamlets (1968)

7.9.3.1.67 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.3.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.3.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.3.1.14)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.3.1.14)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent

member	type	description
position	waves_rtposition (7.9.3.1.348)	Ray/beam position
wavevector	waves_rtwavevector (7.9.3.1.349)	Ray/beam wave vector.
polarization	polarization (7.9.3.1.225)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.3.1.226)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (1751)

7.9.3.1.68 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.3.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.3.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.3.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: psi:boundary (1905)

7.9.3.1.69 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	array3dflt_type (7.9.3.1.6)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array3D(3,nneut,max_ntype)
type	matint_type (7.9.3.1.13)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nneut,max_ntype)
rho_tor	matflt_type (7.9.3.1.12)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nneut,max_ntype).

Type of: corefieldneutral:boundary (1771) I corefieldneutrale:boundary (1772) I corefieldneutralv:boundary (1773)

7.9.3.1.70 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.3.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.3.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.3.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (1769)

7.9.3.1.71 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	array3dflt_type (7.9.3.1.6)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 3D (3,nimp,max_nzimp)
source	vecstring_type (7.9.3.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nimp)
type	matint_type (7.9.3.1.13)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Matrix(nimp,max_nzimp)
rho	matflt_type (7.9.3.1.12)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Matrix(nimp,max_nzimp)
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: coreimpur:boundary (1697)

7.9.3.1.72 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.3.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.3.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.3.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.3.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (1770)

7.9.3.1.73 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.3.1.292)	diagnostic setup information
measure	exp1D (7.9.3.1.160)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (1714)

7.9.3.1.74 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.3.1.258)	Circular coil centre
hlength	float (7.9.3.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.3.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (1992)

7.9.3.1.75 codeparam

Code parameters

member	type	description
codename	string (7.9.3.1.4)	Name of the code
codeversion	string (7.9.3.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.3.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.3.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.3.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: antenna_unit:codeparam (1735) I antennas:codeparam (1695) I boundary:codeparam (1742) I boundaryimp:codeparam (1745) I coherentwave:codeparam (1751) I coredelta:codeparam (1696) I corefield:codeparam (1769) I corefieldion:codeparam (1770) I coreimpur:codeparam (1697) I coreneutrals:codeparam (1698) I coreprof:codeparam (1699) I coresource:codeparam (1700) I coretransp:codeparam (1701) I distri_vec:codeparam (1810) I distribution:codeparam (1703) I distsource:codeparam (1704) I distsource_source:codeparam (1814) I edge:codeparam (1706) I equilibrium:codeparam (1707) I flush:codeparam (1837) I fusiondiag:codeparam (1708) I langmuirdiag:codeparam (1711) I launchs:codeparam (1712) I mhd:codeparam (1715) I nbi:codeparam (1717) I nbi_unit:codeparam (1874) I neoclassic:codeparam (1718) I orbit:codeparam (1719) I psi:codeparam (1905) I sawteeth:codeparam (1723) I scenario:codeparam (1724) I source:codeparam (1971) I turbulence:codeparam (1729) I waves:codeparam (1731)

7.9.3.1.76 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The nion index refers to the various ions (and charge states) considered in the simulation. The ion list is deduced from the composition%atomlist. Nion = sum(composition%atomlist%zn). Example, if D and C atoms are declared in the atomlist (in this order), nion would be equal to 7, representing D+,C+,C2+,C3+,C4+,C5+,C6+

member	type	description
recycling	recycling_neutrals (7.9.3.1.234)	Recycling coefficients
sputtering	sputtering_neutrals (7.9.3.1.310)	Sputtering coefficients

Type of: coreneutrals:coefficients (1698)

7.9.3.1.77 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
composition	composition (7.9.3.1.91)	Plasma composition (description of ion species).
global_param	waves_global_param (7.9.3.1.343)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.3.1.344)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.3.1.345)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.3.1.346)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.3.1.347)	2D profiles in poloidal cross-section
beamtracing	beamtracing (7.9.3.1.67)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.3.1.168)	Solution by full wave code
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: waves:coherentwave (1731)

7.9.3.1.78 complexgrid

Generic definition of a complex grid

member	type	description
spaces	complexgrid_space (7.9.3.1.86)	Definitions of grid spaces. Structure array(nspace).
subgrids	complexgrid_subgrid (7.9.3.1.88)	Definitions of subgrids. Structure array(nsubgrids).
metric	complexgrid_metric (7.9.3.1.81)	Metric coefficients. Array of structures (nsubgrids). Metric information for every subgrid.

Type of: edge:grid (1706)

7.9.3.1.79 complexgrid_altgeo

(Possibly multiple) alternative geometry information for nodes. Structure array(naltgeometries). Mainly intended for plotting.

member	type	description
coordtype	vecint_type (7.9.3.1.15)	Coordinate axis types for alternate coordinate system. Vector(nspacedim).
geo	array3dflt_type (7.9.3.1.6)	Alternate geometry data matrix associated with every node. 3d float array(nnodesinspace, ngeo1, ngeo2). See documentation of nodes.geo one level up.

Type of: complexgrid_nodes:altgeo (1756)

7.9.3.1.80 complexgrid_indexlist

An index list describing a range of indices or a list of indices.; If the explicit index list ind is defined and has size ¿ 0, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.3.1.15)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). Vector(2)
ind	vecint_type (7.9.3.1.15)	An explicit list of indices. If this member is defined and has size¿0, the list is assumed to be explicit. Vector(nindices)

Type of: complexgrid_objectlist:indset (1757)

7.9.3.1.81 complexgrid_metric

Metric information for a subgrid.

member	type	description
measure	complexgrid_scalar_simplestruc (7.9.3.1.85)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim]. Use this field to store measures of implicitly defined grid objects.
g11	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g11. Structure array(nsubgrid_coefficient)
g12	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g12. Structure array(nsubgrid_coefficient)
g13	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g13. Structure array(nsubgrid_coefficient)
g22	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g22. Structure array(nsubgrid_coefficient)
g23	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g23. Structure array(nsubgrid_coefficient)
g33	complexgrid_scalar_simplestruc (7.9.3.1.85)	Metric coefficients g33. Structure array(nsubgrid_coefficient)
jacobian	complexgrid_scalar_simplestruc (7.9.3.1.85)	Jacobian. Structure array(nsubgrid_coefficient)

Type of: complexgrid:metric (1752)

7.9.3.1.82 complexgrid_nodes

Definition of nodes in the space

member	type	description
geo	array3dflt_type (7.9.3.1.6)	Geometry data matrix associated with every node. 3d float array(nnodesinspace, ngeo1, ngeo2). Meaning depends on the value of grid_space.properties.geotype.; First dimension: object index, second+third dimension: matrix row+column.; In the default case (grid_space.properties.geotype=undefined), this field has dimensions (nnodeinspace,nspacedim,1) and simply holds the coordinates for every node, where nspacedim is the dimension of the space. The j-th component of the coordinate vector; of the i-th node is thus geo(i,j,1).
xpoints	vecint_type (7.9.3.1.15)	List of indices of all nodes which are x-points. Vector(nxpoints)
altgeo	complexgrid_altgeo (7.9.3.1.79)	(Possibly multiple) alternative geometry information for nodes. Structure array(naltgeometries). Mainly intended for plotting.
alias	vecint_type (7.9.3.1.15)	Alias list. Vector(nnodesinspace). If this vector is defined, it holds one entry per node. If an entry alias(i)=j with j != 0(=GRID_UNDEFINED),; this means that the nodes with index i and j are aliased, i.e. are identical. If alias(i)=0(=GRID_UNDEFINED), the; node is not aliased to another node. This mechanism can be used to indicate periodic boundaries.

Type of: complexgrid_space:nodes (1760)

7.9.3.1.83 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list if explicit if the matrix ind is given and has nonzero size, in this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are described by indset.

member	type	description
cls	vecint_type (7.9.3.1.15)	Class tuple of the objects in the list. Vector(nspace)
indset	complexgrid_indexlist (7.9.3.1.80)	Index set for implicit definition of the object indices. List of indexlists. Structure Array(nspace)
ind	matint_type (7.9.3.1.13)	Explicit list of index tuples. Matrix(nobject, nspace). First dimension: object index, second dimension: index tuple index.; If this field is defined and has size ¿ 0, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (1762)

7.9.3.1.84 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.3.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.3.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.3.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.3.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_vector:comp (1763) I complexgrid_vector_simplestruct:comp (1764) I edge_fluid_scalar:bndvalue (1819) I edge_fluid_scalar:source (1819) I edge_fluid_scalar:value (1819) I edge_fluid_scalar_simplestruct:bndvalue (1820) I edge_fluid_scalar_simplestruct:source (1820) I edge_fluid_scalar_simplestruct:value (1820) I edge_kinetic_distribution (1825) I edge_kinetic_distribution:source (1825) I edge_kinetic_distribution:value (1825)

7.9.3.1.85 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.3.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.

member	type	description
scalar	vecflt_type (7.9.3.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.3.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.3.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_metric:g11 (1755) I complexgrid_metric:g12 (1755) I complexgrid_metric:g13 (1755) I complexgrid_metric:g22 (1755) I complexgrid_metric:g23 (1755) I complexgrid_metric:g33 (1755) I complexgrid_metric:jacobian (1755) I complexgrid_metric:measure (1755)

7.9.3.1.86 complexgrid_space

Description of a grid space.

member	type	description
coordtype	vecint_type (7.9.3.1.15)	Type of coordinates describing the physical space. Vector(nspacedim); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
properties	complexgrid_space_properties (7.9.3.1.87)	Space properties.
objects	objects (7.9.3.1.204)	Definition of the higher-dimensional objects in the space.; Structure Array(1:nspacedim). First dimension: dimension of the objects (1=edges, 2=faces, 3=cells/volumes, etc...)
nodes	complexgrid_nodes (7.9.3.1.82)	Definition of the nodes in the space.

Type of: complexgrid:spaces (1752)

7.9.3.1.87 complexgrid_space_properties

Some specific properties of a space.

member	type	description
geotype	integer (7.9.3.1.3)	Type of space geometry (id flag). A flag defining how the geometry (geo) fields associated with; grid nodes and objects are to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.3.1.4)	Type of space geometry (id string). A string defining how the geometry (geo) fields associated with; grid nodes and objects are to be interpreted. If the field is undefined, the standard interpretation for; the given coordinate types is assumed.

Type of: complexgrid_space:properties (1760)

7.9.3.1.88 complexgrid_subgrid

Subgrid definition. A subgrid is a list of explicit or implicit object lists.

member	type	description
id	string (7.9.3.1.4)	ID string (name) of the subgrid. Freely chosen by user, possibly used for plotting.
list	complexgrid_objectlist (7.9.3.1.83)	List of object lists. Structure array(nobjectlists).

Type of: complexgrid:subgrids (1752)

7.9.3.1.89 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
label	string (7.9.3.1.4)	Label describing the data
comp	complexgrid_scalar (7.9.3.1.84)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element

member	type	description
align	vecint_type (7.9.3.1.15)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.3.1.16)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar:bndflux (1819) I edge_fluid_scalar:flux (1819) I edge_fluid_scalar_simplestruct:bndflux (1820) I edge_fluid_scalar_simplestruct:flux (1820) I edge_kinetic_distribution:fluxes (1825)

7.9.3.1.90 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.3.1.4)	Label describing the data
comp	complexgrid_scalar (7.9.3.1.84)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.3.1.15)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.3.1.16)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (1821) I edge_fluid_scalar_transpcoeff:v (1821)

7.9.3.1.91 composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.3.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.3.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.3.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.3.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)

Type of: coherentwave:composition (1751) I coredelta:composition (1696) I coreprof:composition (1699) I coresource:composition (1700) I coretransp:composition (1701) I distribution:composition (1703) I distsource:composition (1704) I neoclassic:composition (1718) I sawteeth:composition (1723)

7.9.3.1.92 composition_neutrals

Description of neutrals species

member	type	description
atomlist	atomlist (7.9.3.1.64)	List of the atoms that enter the composition of the neutral species
neutrallist	neutrallist (7.9.3.1.202)	Definition of neutral species
typelist	typelist (7.9.3.1.341)	Definition of types for each neutral species

Type of: coreneutrals:composition (1698)

7.9.3.1.93 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.3.1.4)	Type of coordinate system
grid	reggrid (7.9.3.1.256)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.3.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.3.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.3.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.3.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.3.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.3.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.3.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2)

member	type	description
position	rz2D (7.9.3.1.261)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (1707) I mhd_plasma:coord_sys (1867) I mhd_vacuum:coord_sys (1869)

7.9.3.1.94 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description
coord	vecflt_type (7.9.3.1.14)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.3.1.16)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.3.1.15)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.3.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.3.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.3.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.3.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.3.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (1991)

7.9.3.1.95 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.3.1.14)	Signal value; Time-dependent; Vector (nrho)
derivative	vecflt_type (7.9.3.1.14)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.3.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.3.1.70)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.3.1.303)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.3.1.103)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.3.1.165)	Fluxes of the quantity, two definitions. Time-dependent.
time_deriv	vecflt_type (7.9.3.1.14)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: coreprof:ne (1699) I coreprof:te (1699)

7.9.3.1.96 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.3.1.12)	Signal value; Time-dependent; Matrix (nrho,nion)
derivative	matflt_type (7.9.3.1.12)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.3.1.15)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.3.1.72)	Boundary condition for the transport equation
source_term	sourceion (7.9.3.1.305)	Total source term for the transport equation. Time-dependent.

member	type	description
transp_coef	coretransion (7.9.3.1.105)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.3.1.167)	Fluxes of the quantity, two definitions. Time-dependent.
time_deriv	matflt_type (7.9.3.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: coreprof:ni (1699) I coreprof:ti (1699) I coreprof:vtor (1699)

7.9.3.1.97 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	array3dflt_type (7.9.3.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.3.1.6)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.3.1.69)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:n0 (1904)

7.9.3.1.98 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	array3dflt_type (7.9.3.1.6)	Signal value; Array3D(nrho,nneut,max_ntype). Time-dependent
flux	array3dflt_type (7.9.3.1.6)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array3D(nrho,nneut,max_ntype). Time-dependent;
boundary	boundary_neutrals (7.9.3.1.69)	Boundary condition for the transport equation. Time-dependent.

Type of: profiles_neutrals:t0 (1904)

7.9.3.1.99 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	array3dflt_type (7.9.3.1.6)	Signal value; Array3D(nrho,nneut,max_ntype)Time-dependent;
boundary	boundary_neutrals (7.9.3.1.69)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (1774) I corefieldneutralv0:radial (1774) I corefieldneutralv0:toroidal (1774)

7.9.3.1.100 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.3.1.99)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.3.1.99)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.3.1.99)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: profiles_neutrals:v0 (1904)

7.9.3.1.101 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.3.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (1901) I profiles1d:dpsidt (1901) I profiles1d:dpsidt_phi (1901) I profiles1d:dvprimedt (1901) I profiles1d:e_b (1901) I profiles1d:eparallel (1901) I profiles1d:jni (1901) I profiles1d:joh (1901) I profiles1d:jtot (1901) I profiles1d:pe (1901) I profiles1d:pr_parallel (1901) I profiles1d:pr_perp (1901) I profiles1d:pr_th (1901) I profiles1d:q (1901) I profiles1d:qoh (1901) I profiles1d:shear (1901) I profiles1d:sigmapar (1901) I profiles1d:vloop (1901) I profiles1d:zeff (1901) I psi:sigma_par (1905)

7.9.3.1.102 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.3.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (1901) I profiles1d:ns (1901) I profiles1d:pi (1901) I profiles1d:wtor (1901)

7.9.3.1.103 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.3.1.14)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.3.1.14)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (1769)

7.9.3.1.104 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	array3dflt_type (7.9.3.1.6)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array3D(nrho,nimp,max_nzimp)
vconv	array3dflt_type (7.9.3.1.6)	Convection coefficient [m.s^-1]. Time-dependent; Array3D (nrho,nimp,max_nzimp)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:transp_coef (1697)

7.9.3.1.105 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.3.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.3.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (1770)

7.9.3.1.106 counts

Integrated emissivity [m^-2.s^-1].

member	type	description
expression	string (7.9.3.1.4)	Formal expression for the line integral to be evaluated as a function of the involved physical quantities
setup_line	setup_line (7.9.3.1.295)	Geometric description of the lines of sight
measure	exp1D (7.9.3.1.160)	Counts of particles on detector. Vector (nchords)

Type of: source:counts (1971)

7.9.3.1.107 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.3.1.160)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.3.1.160)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.3.1.160)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (1702)

7.9.3.1.108 cxsetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.3.1.265)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (1702)

7.9.3.1.109 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.3.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.3.1.4)	Date at which the data has been put in the DB
source	string (7.9.3.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.3.1.4)	Any additional comment
isref	integer (7.9.3.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.3.1.350)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.3.1.232)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (1694) I antennas:datainfo (1695) I coredelta:datainfo (1696) I coreimpur:datainfo (1697) I coreneutrals:datainfo (1698) I coreprof:datainfo (1699) I coresource:datainfo (1700) I coretransp:datainfo (1701) I cxdiag:datainfo (1702) I distribution:datainfo (1703) I distsource:datainfo (1704) I ecediag:datainfo (1705) I edge:datainfo (1706) I equilibrium:datainfo (1707) I flush:datainfo (1837) I fusiondiag:datainfo (1708) I ironmodel:datainfo (1710) I langmuirdiag:datainfo (1711) I launchs:datainfo (1712) I limiter:datainfo (1713) I lineintegraldiag:datainfo (1860) I magdiag:datainfo (1714) I mhd:datainfo (1715) I msediag:datainfo (1716) I nbi:datainfo (1717) I neoclassic:datainfo (1718) I orbit:datainfo (1719) I pfsystems:datainfo (1720) I reference:datainfo (1722) I sawteeth:datainfo (1723) I scenario:datainfo (1724) I summary:datainfo (1725) I toroidfield:datainfo (1727) I tsdiag:datainfo (1728) I turbulence:datainfo (1729) I vessel:datainfo (1730) I waves:datainfo (1731)

7.9.3.1.110 desc_impur

Description of the impurities (list of ion species and possibly different charge states)

member	type	description
amn	vecflt_type (7.9.3.1.14)	Atomic mass number of the impurity; Vector (nimp)

member	type	description
zn	vecint_type (7.9.3.1.15)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.3.1.15)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.3.1.15)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.3.1.13)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.3.1.13)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)

Type of: coreimpur:desc_impur (1697)

7.9.3.1.111 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.3.1.16)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.3.1.213)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.3.1.169)	Geometry of the iron segments

Type of: ironmodel:desc_iron (1710)

7.9.3.1.112 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.3.1.16)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.3.1.14)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.3.1.14)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
nelement	vecint_type (7.9.3.1.15)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.3.1.216)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (1889)

7.9.3.1.113 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.3.1.16)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.3.1.16)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.3.1.14)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.3.1.162)	Laplace proper filter
imin	vecflt_type (7.9.3.1.14)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.3.1.14)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.3.1.14)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.3.1.14)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.3.1.14)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.3.1.14)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (1894)

7.9.3.1.114 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.3.1.118)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions	topo_regions (7.9.3.1.321)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expansion (1789)

7.9.3.1.115 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.

member	type	description
markers	dist_markers (7.9.3.1.120)	Distribution given as a set of test particles, or markers.
f_expansion	dist_ff (7.9.3.1.114)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (1810)

7.9.3.1.116 dist_glob

Global parameters (in most cases volume integrated and surface averaged quanatities).

member	type	description
enrg	float (7.9.3.1.2)	Energy content of of a distribution species [J]; Time-dependent
enrg_para	float (7.9.3.1.2)	Parallel energy content of of a distribution species [J]; Time-dependent
pow_coll_i	vecflt_type (7.9.3.1.14)	Collisional power to ions [W]; Time-dependent; Matrix(nion)
pow_coll_e	float (7.9.3.1.2)	Collisional power to the electrons [W]; Time-dependent
therm_src	dist_src_snk_tot (7.9.3.1.133)	Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_glob_dist_losses (7.9.3.1.117)	Losses of the distribution species (orbit losses and neutralisation losses).
cur_dr_tor	float (7.9.3.1.2)	Toroidal current of non-thermal particles (excluding electron back current for fast ions) [A]; Time-dependent.
trq_i	vecflt_type (7.9.3.1.14)	Collisional torque to background ions [N.m]; Time-dependent; Vector (nion)
trq_e	float (7.9.3.1.2)	Collisional torque to electrons [N.m]; Time-dependent
trq_j_rxb	float (7.9.3.1.2)	Torque due to radial currents of non-thermal particles [N.m]; Time-dependent.
nucl_reac_th	dist_nucl_reac_th (7.9.3.1.123)	Nuclear reactions between the calculated species and other species assumed to have thermal distributions.
nucl_reac_sf	dist_nucl_reac_sf (7.9.3.1.122)	Nuclear reactions of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:global_param (1810)

7.9.3.1.117 dist_glob_dist_losses

Losses of the distribution species (orbit losses and neutralisation losses).

member	type	description
orb_loss	dist_src_snk_tot (7.9.3.1.133)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_tot (7.9.3.1.133)	Losses due to neutralisation of distribution ions (charge exchange etc.)

Type of: dist_glob:losses (1790)

7.9.3.1.118 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.3.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)
ngriddim	integer (7.9.3.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.3.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T/m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.3.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.3.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf	omnigen_surf (7.9.3.1.207)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (1788)

7.9.3.1.119 dist_input_src

Input sources of particles and power for the distribution species (to aid diagnosing the code output).

member	type	description
particle_src	dist_particle_src (7.9.3.1.124)	Particle source
wave_src	dist_wave_src (7.9.3.1.135)	Auxiliary wave absorbed by the distribution species

Type of: distri_vec:input_src (1810)

7.9.3.1.120 dist_markers

Distribution given as a set of markers (test particles).

member	type	description
nvar	float (7.9.3.1.2)	Number of variables associated with a marker (test particle)

member	type	description
var_id	vecint_type (7.9.3.1.15)	Identification of phase space variables. var_id(K) describe the variable represented in varK, for K=1,2...7. The possible variables are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T/m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
var1	vecflt_type (7.9.3.1.14)	Phase space variables one characterising the markers; Time-dependent; Vector (ntpart)
var2	vecflt_type (7.9.3.1.14)	Phase space variables two characterising the markers; Time-dependent; Vector (ntpart)
var3	vecflt_type (7.9.3.1.14)	Phase space variables three characterising the markers; Time-dependent; Vector (ntpart)
var4	vecflt_type (7.9.3.1.14)	Phase space variables four characterising the markers; Time-dependent; Vector (ntpart)
var5	vecflt_type (7.9.3.1.14)	Phase space variables five characterising the markers; Time-dependent; Vector (ntpart)
var6	vecflt_type (7.9.3.1.14)	Phase space variables six characterising the markers; Time-dependent; Vector (ntpart)
var7	vecflt_type (7.9.3.1.14)	Phase space variables seven characterising the markers; Time-dependent; Vector (ntpart)
weight	vecflt_type (7.9.3.1.14)	Weight of the markers; Time-dependent; Vector (ntpart)

Type of: dist_func:markers (1789)

7.9.3.1.121 dist_nucl_reac

Information on nuclear reactions involving the calculated species.

member	type	description
point_reac	vecint_type (7.9.3.1.15)	Pointer to a species in composition who can undergo a nuclear reaction with the calculated species; Vector (nreac)
id_reac	vecint_type (7.9.3.1.15)	Identification of the reaction between the calculated species and a background species (including which branch if applicable); Time-dependent; Vector (nreac). Table defining the index of reactions to be provided.

Type of: distri_vec:nucl_reac (1810)

7.9.3.1.122 dist_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	float (7.9.3.1.2)	Reaction rate [1/s]; Time-dependent
power	float (7.9.3.1.2)	Fusion reaction power[W]; Time-dependent

Type of: dist_glob:nucl_reac_sf (1790)

7.9.3.1.123 dist_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	vecflt_type (7.9.3.1.14)	Reaction rate [1/s]; Time-dependent; Vector (nreac)
power	vecflt_type (7.9.3.1.14)	Fusion reaction power[W]; Time-dependent; Vector (nreac)

Type of: dist_glob:nucl_reac_th (1790)

7.9.3.1.124 dist_particle_src

Particle source

member	type	description
total	dist_src_snk_tot (7.9.3.1.133)	Total source of particles and power (NBI, fusion products, pellets etc.)
volume_intgr	dist_src_snk_vol (7.9.3.1.134)	Volume integrated source of particles and power (NBI, fusion products, pellets etc.)

member	type	description
flux_surf_av	dist_src_snk_surf (7.9.3.1.132)	Flux surface averaged source of particles and power (NBI, fusion products, pellets etc.)

Type of: dist_input_src:particle_src (1793)

7.9.3.1.125 dist_prof_surf_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_surf (7.9.3.1.132)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_surf (7.9.3.1.132)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:lossesd (1805)

7.9.3.1.126 dist_prof_surf_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.3.1.14)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (npsi)
power	vecflt_type (7.9.3.1.14)	Fusion reaction power [W.m^-3]; Time-dependent; Matrix (npsi)

Type of: dist_profiles:nucl_rd_sf (1805)

7.9.3.1.127 dist_prof_surf_nucl_reac_th

Nuclear reactions between the cacluated species and oher species assumed to have thermal distributions.

member	type	description
rated	matflt_type (7.9.3.1.12)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (nreac, max_npsi)
powerd	matflt_type (7.9.3.1.12)	Nuclear reaction power density [W.m^-3]; Time-dependent; Matrix (nreac, max_npsi)

Type of: dist_profiles:nucl_rd_th (1805)

7.9.3.1.128 dist_prof_vol_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_vol (7.9.3.1.134)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_vol (7.9.3.1.134)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:losses (1805)

7.9.3.1.129 dist_prof_vol_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.3.1.14)	Reaction rate [1/s]; Time-dependent; Vector (npsi)
power	vecflt_type (7.9.3.1.14)	Fusion reaction power[W]; Time-dependent; Vector (npsi)

Type of: dist_profiles:nucl_reac_sf (1805)

7.9.3.1.130 dist_prof_vol_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	matflt_type (7.9.3.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (nreac, npsi)
power	matflt_type (7.9.3.1.12)	Fusion reaction power[W]; Time-dependent; Matrix (nreac, npsi)

Type of: dist_profiles:nucl_reac_th (1805)

7.9.3.1.131 dist_profiles

Profiles (volume integrated and flux surface averaged)

member	type	description
npsi	integer (7.9.3.1.3)	Number of points of the radial grid for each species.
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.3.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
enrgd_tot	vecflt_type (7.9.3.1.14)	Flux surface averaged energy density of a distribution species [J/m^3]; Time-dependent; Vector (npsi)
enrgd_para	vecflt_type (7.9.3.1.14)	Flux surface averaged parallel energy density of a distribution species [J/m^3] Time-dependent; Vector (npsi).
powd_coll_i	matflt_type (7.9.3.1.12)	Flux surface averaged collisional power to ions [W.m^-3]; Time-dependent; Matrix (nion, npsi)
powd_coll_e	vecflt_type (7.9.3.1.14)	Flux surface averaged collisional power to the electrons [W.m^-3]; Time-dependent; Vector(npsi)
therm_srcd	dist_src_snk_surf (7.9.3.1.132)	Flux surface averaged source of particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
lossesd	dist_prof_surf_dist_losses (7.9.3.1.125)	Particle loss densities due to charge exchange events with neutrals or orbits intersecting material surfaces.
curd_fp	vecflt_type (7.9.3.1.14)	Flux surface averaged toroidal current density of non-thermal (fast) particles of the distribution species (excluding electron back current for fast ions) [A.m^-2]; Time-dependent; Vector (npsi).
curd_dr	vecflt_type (7.9.3.1.14)	Total toroidal driven current density (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi)
trqd_i	matflt_type (7.9.3.1.12)	Flux surface averaged collisional toroidal torque to background ions [N.m^-2]; Time-dependent; Matrix (nion, npsi)
trqd_e	vecflt_type (7.9.3.1.14)	Flux surface averaged collisional toroidal torque density to electrons [N.m^-2]; Time-dependent; Vector (npsi)
trqd_jrxb	vecflt_type (7.9.3.1.14)	Toroidal torque density due to radial currents of non-thermal particles of the distribution species [N.m^-2]; Time-dependent; Vector (npsi)
nucl_rd_th	dist_prof_surf_nucl_reac_th (7.9.3.1.127)	Nuclear reaction rate densities for reactions between the cacluated species and other species assumed to have thermal distributions.
nucl_rd_sf	dist_prof_surf_nucl_reac_sf (7.9.3.1.126)	Nuclear reaction rate densities for reactions of the calculated species with itself (thermal + non-thermal).
enrg_tot	vecflt_type (7.9.3.1.14)	Energy content of of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
enrg_para	vecflt_type (7.9.3.1.14)	Parallel energy content of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
pow_coll_i	matflt_type (7.9.3.1.12)	Collisional power to ions inside a flux surface [W]; Time-dependent; Matrix(nion, npsi)
pow_coll_e	vecflt_type (7.9.3.1.14)	Collisional power to the electrons inside a flux surface [W]; Time-dependent; Vector(npsi)
therm_src	dist_src_snk_vol (7.9.3.1.134)	Source particles and power inside a flux surface due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_prof_vol_dist_losses (7.9.3.1.128)	Particle loss inside flux surface due to charge exchange events.
cur_fp	vecflt_type (7.9.3.1.14)	Toroidal current of non-thermal (fast) particles driven inside a flux surface (does not include electron back current for fast ions) [A]; Time-dependent; Vector (npsi)
cur_dr	vecflt_type (7.9.3.1.14)	Total toroidal current driven inside a flux surface (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi).
trq_i	matflt_type (7.9.3.1.12)	Collisional toroidal torque to background ions inside a flux surface [N.m]; Time-dependent; Matrix (nion, npsi)
trq_e	vecflt_type (7.9.3.1.14)	Collisional toroidal torque to electrons inside a flux surface [N.m]; Time-dependent; Vector (npsi)
trq_j_rxb	vecflt_type (7.9.3.1.14)	Toroidal torque due to radial currents of non-thermal particles of the distribution species [N.m]; Time-dependent; Vector (npsi)
nucl_reac_th	dist_prof_vol_nucl_reac_th (7.9.3.1.130)	Nuclear reactions inside a flux surface involving the distribution species and other species assumed to be thermal.

member	type	description
nucl_reac_sf	dist_prof_vol_nucl_reac_sf (7.9.3.1.129)	Nuclear reactions inside a flux surface of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:profiles_1d (1810)

7.9.3.1.132 dist_src_snk_surf

Losses due to orbits intersecting a material surface.

member	type	description
particlesd	vecflt_type (7.9.3.1.14)	Source/sink particles [s^-1 m^-3]; Time-dependedent; Vector (npsi)
powerd	vecflt_type (7.9.3.1.14)	Power density associated with the source/sink of particles [W.m^-3]; Time-dependent; Vector (npsi)
torqued	vecflt_type (7.9.3.1.14)	Torque density due to the source/sink of particles [N.m^-2]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:flux_surf_av (1798) I dist_prof_surf_dist_losses:neutr_loss (1799) I dist_prof_surf_dist_losses:orb_loss (1799) I dist_profiles:therm_srcd (1805)

7.9.3.1.133 dist_src_snk_tot

Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).

member	type	description
particles	float (7.9.3.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.3.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.3.1.2)	Torque due to the source/sink of particles [N.m]; Time-dependent

Type of: dist_glob:therm_src (1790) I dist_glob_dist_losses:neutr_loss (1791) I dist_glob_dist_losses:orb_loss (1791) I dist_particle_src:total (1798)

7.9.3.1.134 dist_src_snk_vol

Losses due to orbits intersecting a material surface.

member	type	description
particles	vecflt_type (7.9.3.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.3.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.3.1.14)	Torque due to the source/sink of particles [N.m]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:volume_intgr (1798) I dist_prof_vol_dist_losses:neutr_loss (1802) I dist_prof_vol_dist_losses:orb_loss (1802) I dist_profiles:therm_src (1805)

7.9.3.1.135 dist_wave_src

Auxiliary wave absorbed by the distribution species

member	type	description
type	string (7.9.3.1.4)	Wave type (LH, EC, IC, ...), can be a combination of these if several wave types are absorbed by this species.
wave_power	float (7.9.3.1.2)	Auxiliary wave power absorbed by the distribution species [W]; Time-dependent.
wave_powerd	vecflt_type (7.9.3.1.14)	Auxiliary flux surface averaged wave power density absorbed by the distribution species [W/m^3]; Time-dependent; Vector (npsi)

Type of: dist_input_src:wave_src (1793)

7.9.3.1.136 distri_vec

Vector over all distribution functions; Time-dependent. Structure array(ndist_spec)

member	type	description
calc_spec	integer (7.9.3.1.3)	Pointer to the species for which the distribution function(s) is/are calculated and whose characteristics are given in composition (for ions). Value 0 means electrons.
nucl_reac	dist_nucl_reac (7.9.3.1.121)	Information on nuclear reactions involving the calculated species.
global_param	dist_glob (7.9.3.1.116)	Global parameters (in most cases volume integrated and surface averaged quanatities).
profiles_1d	dist_profiles (7.9.3.1.131)	Profiles (volume integrated and flux surface averaged)
dist_func	dist_func (7.9.3.1.115)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.
input_src	dist_input_src (7.9.3.1.119)	Input sources of particles and power for the distribution species (to aid diagnosing the code output).
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: distribution:distri_vec (1703)

7.9.3.1.137 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.3.1.159)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.3.1.159)	Particle source rate [1/s]; Time-dependent.

Type of: distsource_source:global_param (1814)

7.9.3.1.138 distsource_profiles_1d

1D radial profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.3.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.3.1.160)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.3.1.160)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (1814)

7.9.3.1.139 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.3.1.15)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T/m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.3.1.12)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.3.1.12)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.3.1.12)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.3.1.12)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.3.1.12)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)

member	type	description
g22	matflt_type (7.9.3.1.12)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.3.1.161)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.3.1.161)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (1814)

7.9.3.1.140 distsource_source

Source

member	type	description
src_spec	integer (7.9.3.1.3)	Pointer to the source species whose characteristics are given in composition.
global_param	distsource_global_param (7.9.3.1.137)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.3.1.138)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.3.1.139)	2D source profiles in terms of two phase space coordinates
source_grid	source_grid (7.9.3.1.299)	Source density of particles in phase space (real space, velocity space, spin state).
source_mark	source_mark (7.9.3.1.302)	Source given as a set of markers (test particles)
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: distsource:source (1704)

7.9.3.1.141 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.3.1.14)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.3.1.14)	Beam divergence for a unit in the vertical direction[rad]. Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.3.1.14)	Beam divergence for a unit in the horizontal direction[rad]. Vector(ndiv_comp)

Type of: setup_inject:divergence (1968)

7.9.3.1.142 ecemeasure

Measured values

member	type	description
te	exp1D (7.9.3.1.160)	Electron temperature [eV]. Vector (nchannels)

Type of: ecediag:measure (1705)

7.9.3.1.143 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.3.1.14)	Frequency of the ECE channels. Vector (nchannels)
position	rzphi1Dexp (7.9.3.1.265)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: ecediag:setup (1705)

7.9.3.1.144 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.3.1.146)	Electron density [1/m^3]; Time-dependent;
ni	edge_fluid_scalar (7.9.3.1.145)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.3.1.149)	Electron velocity [m/s]; Time-dependent;
vi	edge_fluid_vector (7.9.3.1.148)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.3.1.146)	Electron temperature [eV]; Time-dependent;
ti	edge_fluid_scalar (7.9.3.1.145)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.3.1.149)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso	edge_fluid_vector (7.9.3.1.148)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.3.1.146)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.3.1.149)	Electric current [A]; Time-dependent;

Type of: edge:fluid (1706)

7.9.3.1.145 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value	complexgrid_scalar (7.9.3.1.84)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue	complexgrid_scalar (7.9.3.1.84)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux	complexgrid_vector (7.9.3.1.89)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux	complexgrid_vector (7.9.3.1.89)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff	edge_fluid_scalar_transpcoeff (7.9.3.1.147)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source	complexgrid_scalar (7.9.3.1.84)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (1818) I edge_fluid:ti (1818) I edge_fluid_vector:comps (1822) I edge_fluid_vector_simplestruct:comps (1823)

7.9.3.1.146 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value	complexgrid_scalar (7.9.3.1.84)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue	complexgrid_scalar (7.9.3.1.84)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux	complexgrid_vector (7.9.3.1.89)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux	complexgrid_vector (7.9.3.1.89)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff	edge_fluid_scalar_transpcoeff (7.9.3.1.147)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source	complexgrid_scalar (7.9.3.1.84)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (1818) I edge_fluid:po (1818) I edge_fluid:te (1818)

7.9.3.1.147 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.3.1.90)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.3.1.90)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (1819) I edge_fluid_scalar_simplestruct:transpcoeff (1820)

7.9.3.1.148 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
comps	edge_fluid_scalar (7.9.3.1.145)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.3.1.15)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.3.1.16)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:ti_aniso (1818) I edge_fluid:vi (1818)

7.9.3.1.149 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
comps	edge_fluid_scalar (7.9.3.1.145)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.3.1.15)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.3.1.16)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (1818) I edge_fluid:te_aniso (1818) I edge_fluid:ve (1818)

7.9.3.1.150 edge_kinetic

Kinetic quantities

member	type	description
f	edge_kinetic_distribution (7.9.3.1.151)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (1706)

7.9.3.1.151 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value	complexgrid_scalar (7.9.3.1.84)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue	complexgrid_scalar (7.9.3.1.84)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes	complexgrid_vector (7.9.3.1.89)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source	complexgrid_scalar (7.9.3.1.84)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (1824)

7.9.3.1.152 emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
r	exp1D (7.9.3.1.160)	horizontal grid. Vector (dim)
z	exp1D (7.9.3.1.160)	vertical grid. Vector (dim)
measure	exp1D (7.9.3.1.160)	reconstruction. Vector (dim)

Type of: source:emissivity1d (1971)

7.9.3.1.153 emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
r	exp2D (7.9.3.1.161)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.3.1.161)	vertical grid. Vector (dim1,dim2)
measure	exp2D (7.9.3.1.161)	Reconstruction. Vector (dim1,dim2)

Type of: source:emissivity2d (1971)

7.9.3.1.154 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.3.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.3.1.4)	Name of the device
shot	integer (7.9.3.1.3)	Shot number
run	integer (7.9.3.1.3)	Run number

Type of: mdinfo:md_entry (1865)

7.9.3.1.155 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.3.1.158)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.3.1.157)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.3.1.157)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.3.1.158)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.3.1.158)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.3.1.157)	Plasma current [A];
isoflux	isoflux (7.9.3.1.175)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.3.1.158)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.3.1.189)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.3.1.158)	MSE angles [rad]
ne	eqmes1D (7.9.3.1.158)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.3.1.158)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.3.1.158)	Total pressure [Pa]
q	q (7.9.3.1.233)	Safety factor
xpts	xpts (7.9.3.1.351)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (1707)

7.9.3.1.156 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.3.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.3.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary	rz1D_npoints (7.9.3.1.260)	RZ description of the plasma boundary; Time-dependent;
geom_axis	rz0D (7.9.3.1.258)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.3.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.3.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.3.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.3.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts	rz1D (7.9.3.1.259)	Position of the Xpoints, first is the active xpoint if diverted [m]; Time-dependent; Vector (npoint)
left_low_st	rz0D (7.9.3.1.258)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.3.1.258)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.3.1.258)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.3.1.258)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.3.1.258)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (1707) I scenario:eqgeometry (1724)

7.9.3.1.157 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.3.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.3.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.3.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.3.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.3.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.3.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.3.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.3.1.2)	chiˆ2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (1829) I eqconstraint:diamagflux (1829) I eqconstraint:i_plasma (1829)

7.9.3.1.158 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.3.1.14)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.3.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.3.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.3.1.15)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.3.1.14)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.3.1.14)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.3.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.3.1.14)	chiˆ2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (1829) I eqconstraint:faraday (1829) I eqconstraint:flux (1829) I eqconstraint:jsurf (1829) I eqconstraint:mse (1829) I eqconstraint:ne (1829) I eqconstraint:pfcurrent (1829) I eqconstraint:pressure

(1829) I magnet_iron:mr (1863) I magnet_iron:mz (1863)

7.9.3.1.159 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.3.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.3.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.3.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (1732) I antenna_ic:frequency (1733) I antenna_ic:power (1733) I antenna_lh:power (1734) I distsource_global_param:src_pow (1811) I distsource_global_param:src_rate (1811) I magdiag:diamagflux (1714) I magdiag:ip (1714) I nbi_unit:inj_eng_unit (1874) I nbi_unit:pow_unit (1874) I straps:phase (1988) I toroidfield:bvac_r (1727) I toroidfield:current (1727)

7.9.3.1.160 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.3.1.14)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.3.1.14)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.3.1.14)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bpol_probes:measure (1747) I counts:measure (1780) I cxmeasure:ti (1781) I cxmeasure:vpol (1781) I cxmeasure:vtor (1781) I distsource_profiles_1d:pow_den (1812) I distsource_profiles_1d:src_rate (1812) I ecemeasure:te (1816) I emissivity1d:measure (1826) I emissivity1d:r (1826) I emissivity1d:z (1826) I flux_loops:measure (1838) I lang_derived:measure (1851) I lang_measure:area (1852) I lang_measure:measure (1852) I lineintegraldiag:measure (1860) I magnetise:mr (1864) I magnetise:mz (1864) I modules:amplitude (1873) I modules:phase (1873) I msediag:measure (1716) I nbi_unit:beamcurrfrac (1874) I nbi_unit:beampowrfrac (1874) I pfcoils:coilcurrent (1889) I pfcoils:coilvoltage (1889) I pfsupplies:current (1894) I pfsupplies:voltage (1894) I rzphi1Dexp:phi (1939) I rzphi1Dexp:r (1939) I rzphi1Dexp:z (1939) I tsmeasure:ne (2001) I tsmeasure:te (2001)

7.9.3.1.161 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.3.1.12)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.3.1.12)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.3.1.12)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (1813) I distsource_profiles_2d:src_rate (1813) I emissivity2d:measure (1827) I emissivity2d:r (1827) I emissivity2d:z (1827)

7.9.3.1.162 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.3.1.12)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.3.1.12)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (1787)

7.9.3.1.163 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
position	rz1D (7.9.3.1.259)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.3.1.12)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: equilibrium:flush (1707)

7.9.3.1.164 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.3.1.293)	diagnostic setup information
measure	exp1D (7.9.3.1.160)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (1714)

7.9.3.1.165 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.3.1.14)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.3.1.14)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (1769)

7.9.3.1.166 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	array3dflt_type (7.9.3.1.6)	Flux of the field calculated from the transport coefficients. Time-dependent; Array3D (nrho,nion,max_nzimp)
flux_interp	array3dflt_type (7.9.3.1.6)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array3D (nrho,nion,max_nzimp)

Type of: coreimpur:flux (1697)

7.9.3.1.167 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.3.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.3.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (1770)

7.9.3.1.168 fullwave

Solution by full wave code

member	type	description
pol_decomp	pol_decomp (7.9.3.1.224)	Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.
local	local (7.9.3.1.187)	Local description of the wave fields. Uses the grid in grid_2d.

Type of: coherentwave:fullwave (1751)

7.9.3.1.169 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.3.1.15)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.3.1.261)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (1785)

7.9.3.1.170 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.3.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.3.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.3.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.3.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.3.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.3.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.3.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.3.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.3.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.3.1.188)	Magnetic axis values
q_95	float (7.9.3.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.3.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.3.1.65)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.3.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.3.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (1707)

7.9.3.1.171 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.3.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.3.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.3.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.3.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.3.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.3.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.3.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.3.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.3.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (1699)

7.9.3.1.172 grid

definition of the 2D grid

member	type	description

member	type	description
dim1	vecflt_type (7.9.3.1.14)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.3.1.14)	Second dimension values; Time-dependent; Vector (ndim2)
connect	matint_type (7.9.3.1.13)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: profiles_2d:grid (1903)

7.9.3.1.173 grid_info

Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.

member	type	description
grid_type	integer (7.9.3.1.3)	Type of grid in continuous dimensions: 1=unstructured grid, 2=structured non-rectangular grid, 3=rectangular. For rectangular grids, and/or dimensions with discrete source, the grid coordinates dim1,dim2,... is stored in vectors dim1(1:ndim1,1,1,1), dim1(1,1:ndim2,1,1),...
ngriddim	integer (7.9.3.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, and dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.3.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describe the coordinate represented in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T/m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
discrete_dims	vecint_type (7.9.3.1.15)	Specifies discrete or continuous grid in each dimension separately. For discrete_dims(K)=1, K=1,2...6: the source is discretely distributed at the grid points of the dimK-grid (e.g. to treat the discrete energies injected with NBI); for discrete_dims(K)=0: continuous source, i.e. the source is distributed over the continuous variable dimK (e.g. the source density is a continuous function of the major radius). Vector (6)
gyrosrc_type	integer (7.9.3.1.3)	Defines how to interpret the source: 1 = the source is calulated at the particle birth point; 2 = the source is calulated at the gyro centre of the birth point.

Type of: source_grid:grid_info (1973)

7.9.3.1.174 inj_spec

Injected species

member	type	description
amn	float (7.9.3.1.2)	Atomic mass number
zn	float (7.9.3.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (1874)

7.9.3.1.175 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.3.1.259)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.3.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String

member	type	description
weight	vecflt_type (7.9.3.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.3.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.3.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.3.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (1829)

7.9.3.1.176 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.3.1.14)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (1905)

7.9.3.1.177 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.3.1.16)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.3.1.265)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.3.1.160)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (1711) I langmuirdiag:ne (1711) I langmuirdiag:te (1711)

7.9.3.1.178 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.3.1.16)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.3.1.160)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.3.1.265)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.3.1.160)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (1711) I langmuirdiag:jsat (1711) I langmuirdiag:potential (1711)

7.9.3.1.179 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.3.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad]; Time-dependent
beta	float (7.9.3.1.2)	Toroidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (trigonometric convention) [rad]; Time-dependent

Type of: antenna_ec:launchangles (1732)

7.9.3.1.180 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.3.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.3.1.12)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.3.1.14)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (1982)

7.9.3.1.181 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.3.1.15)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.3.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.3.1.12)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.3.1.12)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.3.1.6)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (1982)

7.9.3.1.182 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.3.1.184)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.3.1.183)	Phase ellipse characteristics of the spot

Type of: launchs:beam (1712)

7.9.3.1.183 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.3.1.12)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.3.1.14)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (1856)

7.9.3.1.184 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.3.1.12)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.3.1.14)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (1856)

7.9.3.1.185 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.3.1.4)	Name or description of the limiter_unit

member	type	description
closed	string (7.9.3.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.3.1.259)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)

Type of: limiter:limiter_unit (1713)

7.9.3.1.186 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.3.1.109)	Generic information on a data item
expression	string (7.9.3.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.3.1.295)	Geometric description of the lines of sight
measure	exp1D (7.9.3.1.160)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.3.1.2)	Time [s]; Time-dependent; Scalar

7.9.3.1.187 local

Local description of the wave fields. Uses the grid in grid_2d.

member	type	description
e_plus	array3dflt_type (7.9.3.1.6)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.3.1.6)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.3.1.6)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.3.1.6)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.3.1.7)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.3.1.6)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.3.1.6)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.3.1.6)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.3.1.6)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.3.1.6)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.3.1.6)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.3.1.6)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.3.1.6)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.3.1.6)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.3.1.6)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.3.1.6)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (1842)

7.9.3.1.188 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.3.1.258)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.3.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.3.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (1844)

7.9.3.1.189 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.3.1.158)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.3.1.158)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (1829)

7.9.3.1.190 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.3.1.160)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.3.1.160)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (1710)

7.9.3.1.191 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.3.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.3.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.3.1.154)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.3.1.192 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	integer (7.9.3.1.3)	0 (conformal) or 1 (free); Integer; Time-dependent;
position	rz1D (7.9.3.1.259)	RZ description of the wall; Time-dependent;

Type of: mhd_walls2d:ideal_wall (1871)

7.9.3.1.193 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.3.1.14)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
m	array3dflt_type (7.9.3.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
disp_perp	array3dflt_type (7.9.3.1.6)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
disp_par	array3dflt_type (7.9.3.1.6)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
tau_alfven	vecflt_type (7.9.3.1.14)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_resistive	vecflt_type (7.9.3.1.14)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.3.1.93)	flux surface coordinate system on a square grid of flux and angle

member	type	description
a_pert	mhd_vector (7.9.3.1.196)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.3.1.196)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.3.1.196)	Perturbed velocity (in Fourier space) [m/s]
p_pert	array3dflt_type (7.9.3.1.6)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 3D (npsi,nn,nm)
rho_mass_pert	array3dflt_type (7.9.3.1.6)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 3D (npsi,nn,nm)
temp_pert	array3dflt_type (7.9.3.1.6)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd:plasma (1715)

7.9.3.1.194 mhd_res_wall2d

Resistive wall

member	type	description
walltype	integer (7.9.3.1.3)	0 (conformal) or 1 (free); Integer; Time-dependent;
delta	float (7.9.3.1.2)	Wall thickness [m]; Time-dependent; Scalar
eta	float (7.9.3.1.2)	Wall resistivity [ohm.m]; Time-dependent; Scalar
position	rz1D (7.9.3.1.259)	RZ description of the wall; Time-dependent;

Type of: mhd_walls2d:res_wall (1871)

7.9.3.1.195 mhd_vacuum

External modes

member	type	description
m	array3dflt_type (7.9.3.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
coord_sys	coord_sys (7.9.3.1.93)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.3.1.196)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.3.1.196)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd:vacuum (1715)

7.9.3.1.196 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	array3dflt_type (7.9.3.1.6)	Fourier components of first coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord2	array3dflt_type (7.9.3.1.6)	Fourier components of second coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord3	array3dflt_type (7.9.3.1.6)	Fourier components of third coordinate; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd_plasma:a_pert (1867) I mhd_plasma:b_pert (1867) I mhd_plasma:v_pert (1867) I mhd_vacuum:a_pert (1869) I mhd_vacuum:b_pert (1869)

7.9.3.1.197 mhd_walls2d

2D Walls

member	type	description
ideal_wall	mhd_ideal_wall2d (7.9.3.1.192)	Ideal wall
res_wall	mhd_res_wall2d (7.9.3.1.194)	Resistive Wall(s). Time-dependent

Type of: mhd:walls (1715)

7.9.3.1.198 midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.3.1.210)	Position at outer mid-plane
inner	orbit_pos (7.9.3.1.210)	Position at inner mid-plane

Type of: special_pos:midplane (1980)

7.9.3.1.199 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.3.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.3.1.3)	Number of modules per antenna in the toroidal direction.
ima_theta	vecint_type (7.9.3.1.15)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.3.1.15)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.3.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.3.1.160)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.3.1.160)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.3.1.342)	Waveguides description

Type of: antennalh_setup:modules (1737)

7.9.3.1.200 nbi_unit

Injector unit. Structure array(nunits). Time-dependent

member	type	description
inj_spec	inj_spec (7.9.3.1.174)	Injected species
pow_unit	exp0D (7.9.3.1.159)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.3.1.159)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.3.1.160)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.3.1.160)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
setup_inject	setup_inject (7.9.3.1.294)	Detailed information on an injection unit.
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: nbi:nbi_unit (1717)

7.9.3.1.201 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.3.1.12)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.3.1.12)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.3.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.3.1.205)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ne_transp (1701)

7.9.3.1.202 neutrallist

Definition of neutral species

member	type	description
ncomp	vecint_type (7.9.3.1.15)	For each neutral species, number of distinct atoms that enter the composition of this species (1 if the neutral is an atom, more for a molecule : 2 for CH4). Vector of integers (nneut)
tatm	matint_type (7.9.3.1.13)	For each neutral species, and each of its atomic component, index of the atom (referring to the atomlist). Matrix of integers (nneut,max_ncomp)
multatm	matint_type (7.9.3.1.13)	For each neutral species, and each of its atomic component, number of such atoms. Matrix of integers (nneut,max_ncomp)

Type of: composition_neutrals:neutrallist (1766)

7.9.3.1.203 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.3.1.6)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.3.1.6)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.3.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.3.1.206)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ni_transp (1701)

7.9.3.1.204 objects

Definition of higher-dimensional objects (¿= 1d) in the grid space (e.g. edges, faces, cells). An object of dimension n is defined; by enumerating the (n-1)-dimensional objects defining its boundaries.

member	type	description
boundary	matint_type (7.9.3.1.13)	Lists of (n-1)-dimensional objects defining the boundary of an n-dimensional object. Matrix(nobject,nmaxobjectboundary);First dimension: object index, second index: boundary object index
neighbour	array3dint_type (7.9.3.1.7)	Connectivity information. 3d array of integers(nobject, nmaxobjectboundaries, nmaxneighboursperboundary).; Stores the indices of the n-dimensional objects adjacent to a given n-dimensional object.;An object can possibly have multiple neighbours on every boundary. ;First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array3dflt_type (7.9.3.1.6)	Geometry data matrix associated with an object. 3d float array(nobject,ngeo1,ngeo2). Meaning depends on the value of grid_space.properties.geotype.; First dimension: object index, second+third dimension: matrix row+column.
measure	vecflt_type (7.9.3.1.14)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim]. Use this field to store measures for (sub)objects explicitly defined in spaces.

Type of: complexgrid_space:objects (1760)

7.9.3.1.205 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

member	type	description
d_ti	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.3.1.14)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.3.1.14)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.3.1.14)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.3.1.14)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (1875) I transcoefel:off_diagonal (1997)

7.9.3.1.206 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.3.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.3.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.3.1.12)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (1877) I transcoefion:off_diagonal (1999) I transcoefvtor:off_diagonal (2000)

7.9.3.1.207 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.3.1.259)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.3.1.14)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (1792)

7.9.3.1.208 orb_glob_dat

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.3.1.15)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.3.1.14)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.3.1.14)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.3.1.14)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	special_pos (7.9.3.1.306)	Special positions along an orbit (like turning points).

Type of: orbit:orb_glob_dat (1719)

7.9.3.1.209 orb_trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.3.1.12)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.3.1.15)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.3.1.12)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.3.1.12)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.3.1.12)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.3.1.12)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.3.1.12)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.3.1.12)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:orb_trace (1719)

7.9.3.1.210 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.3.1.14)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.3.1.14)	Altitude [m]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.3.1.14)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.3.1.14)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: midplane:inner (1872) I midplane:outer (1872) I turning_pts:lower (2014) I turning_pts:upper (2014)

7.9.3.1.211 orbitt_id

Parameters identifying an orbit

member	type	description
amn	float (7.9.3.1.2)	Atomic mass of the ion; Scalar
zion	float (7.9.3.1.2)	Atomic charge of the ion; Scalar
energy	vecflt_type (7.9.3.1.14)	Energy of the ion [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.3.1.14)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.3.1.14)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.3.1.15)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:orbitt_id (1719)

7.9.3.1.212 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.3.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.3.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.3.1.4)	Code parameters schema.

Type of

7.9.3.1.213 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.3.1.12)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.3.1.12)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (1785)

7.9.3.1.214 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.3.1.16)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.3.1.16)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.3.1.15)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.3.1.7)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (1720)

7.9.3.1.215 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.3.1.112)	Description of the coils
coilcurrent	exp1D (7.9.3.1.160)	Circuit feed current in the coil , defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.3.1.160)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)

Type of: pfsystems:pfcoils (1720)

7.9.3.1.216 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.3.1.16)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.3.1.12)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.3.1.12)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.3.1.217)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (1786)

7.9.3.1.217 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.3.1.13)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.3.1.13)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.3.1.262)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)

member	type	description
rzdrdz	array3dflt_type (7.9.3.1.6)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (1890)

7.9.3.1.218 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.3.1.15)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.3.1.15)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.3.1.261)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.3.1.12)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (1893)

7.9.3.1.219 pfpassive

Passive axisymmetric conductor description

member	type	description
area	vecflt_type (7.9.3.1.14)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.3.1.14)	Passive element resistance [Ohm]; Vector (nelements)
pfpageometry	pfpageometry (7.9.3.1.218)	Geometry of the passive elements

Type of: pfsystems:pfpassive (1720)

7.9.3.1.220 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.3.1.113)	Description of the power supplies
voltage	exp1D (7.9.3.1.160)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.3.1.160)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (1720)

7.9.3.1.221 phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	vecflt_type (7.9.3.1.14)	Inverse curvature radii for the phase ellipse [m-1], Vector (2). Time-dependent
angle	float (7.9.3.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (1931)

7.9.3.1.222 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.3.1.259)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.3.1.14)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].

member	type	description
radialhwidth	vecflt_type (7.9.3.1.14)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (1992)

7.9.3.1.223 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.3.1.3)	Number of points in the distance grid. Integer
distance	vecflt_type (7.9.3.1.14)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.3.1.14)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (1734)

7.9.3.1.224 pol_decomp

Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.

member	type	description
mpol	vecint_type (7.9.3.1.15)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.3.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.3.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array4dflt_type (7.9.3.1.8)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.3.1.6)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.3.1.6)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (1842)

7.9.3.1.225 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.3.1.14)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent

member	type	description
epol_p_im	vecflt_type (7.9.3.1.14)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.3.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.3.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.3.1.14)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.3.1.14)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (1741)

7.9.3.1.226 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.3.1.14)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent
phi_par	vecflt_type (7.9.3.1.14)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.3.1.14)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.3.1.12)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (1741)

7.9.3.1.227 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.3.1.101)	Electron pressure [Pa]; Time-dependent;
pi	coreprofion (7.9.3.1.102)	Ion pressure [Pa]; Time-dependent;
pr_th	coreprofile (7.9.3.1.101)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.3.1.101)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.3.1.101)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.3.1.101)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.3.1.101)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
joh	coreprofile (7.9.3.1.101)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.3.1.101)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.3.1.101)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	coreprofile (7.9.3.1.101)	ohmic heating [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.3.1.101)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.3.1.101)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.3.1.101)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.3.1.101)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.3.1.102)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.3.1.102)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.3.1.102)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.3.1.101)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.3.1.101)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dpsidt	coreprofile (7.9.3.1.101)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
dpsidt_phi	coreprofile (7.9.3.1.101)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
dvprimedt	coreprofile (7.9.3.1.101)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (1699)

7.9.3.1.228 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.3.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.3.1.14)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.3.1.14)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.3.1.14)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.3.1.14)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.3.1.14)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.3.1.14)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.3.1.14)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.3.1.14)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.3.1.14)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.3.1.14)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.3.1.14)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.3.1.14)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.3.1.14)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.3.1.14)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.3.1.14)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.3.1.14)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.3.1.14)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.3.1.14)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.3.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.3.1.14)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.3.1.14)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.3.1.14)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.3.1.14)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.3.1.14)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.3.1.14)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.3.1.14)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.3.1.14)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.3.1.14)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.3.1.14)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.3.1.14)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.3.1.14)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.3.1.14)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.3.1.14)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.3.1.14)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.3.1.14)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.3.1.14)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.3.1.14)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.3.1.14)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.3.1.14)	Poloidal flow function phi_flow = rho*v_pol*B_pol[kg/(V.s^2)]; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.3.1.14)	Definition to be provided; Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.3.1.14)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (1707)

7.9.3.1.229 profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	string (7.9.3.1.4)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	grid (7.9.3.1.172)	definition of the 2D grid
r	matflt_type (7.9.3.1.12)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.3.1.12)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.3.1.12)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.3.1.12)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.3.1.12)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.3.1.12)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.3.1.12)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.3.1.12)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.3.1.12)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.3.1.12)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.3.1.12)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.3.1.12)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.3.1.12)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.3.1.12)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (1707)

7.9.3.1.230 profiles_neutrals

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
n0	corefieldneutral (7.9.3.1.97)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.3.1.98)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.3.1.100)	Neutral velocity
prad0	matflt_type (7.9.3.1.12)	Power radiated by neutrals [W.m^-3]. Matrix (nrho,nneut). Time-dependent.

Type of: coreneutrals:profiles (1698)

7.9.3.1.231 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.3.1.14)	Signal value [Wb]; Time-dependent; Vector (nrho)
derivative	vecflt_type (7.9.3.1.14)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.3.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.3.1.68)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.3.1.176)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.3.1.101)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: coreprof:psi (1699)

7.9.3.1.232 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.3.1.4)	Storage method for this data
putaccess	string (7.9.3.1.4)	Instructions to access the data using this method
putlocation	string (7.9.3.1.4)	Name of this data under this method
rights	string (7.9.3.1.4)	Access rights to this data

Type of: datainfo:putinfo (1783)

7.9.3.1.233 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.3.1.14)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.3.1.259)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.3.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.3.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.3.1.14)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.3.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.3.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.3.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (1829)

7.9.3.1.234 recycling_neutrals

Recycling coefficients

member	type	description
particles	matflt_type (7.9.3.1.12)	Particle recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.
energy	matflt_type (7.9.3.1.12)	Energy recycling coefficient corresponding to the conversion of ion type IION to the neutral type INEUT. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:recycling (1750)

7.9.3.1.235 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.3.1.2)	Data value; Real
source	string (7.9.3.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.3.1.2)	Time (exact time slice used from the time array of the source signal); Real

Type of: summary:a_minor (1725) I summary:area (1725) I summary:beta_normal (1725) I summary:beta_pol (1725) I summary:beta_tor (1725) I summary:bvac_r (1725) I summary:elongation (1725) I summary:geom_axis_r (1725) I summary:impur1_a (1725) I summary:impur1_z (1725) I summary:ip (1725) I summary:li (1725) I summary:main_ion1_a (1725) I summary:main_ion1_z (1725) I summary:main_ion2_a (1725) I summary:main_ion2_z (1725) I summary:nev (1725) I summary:tev (1725) I summary:tiv (1725) I summary:tria_lower (1725) I summary:tria_upper (1725) I summary:volume (1725) I summary:zeffv (1725)

7.9.3.1.236 ref_nt

set of non-timed references

member	type	description
zerod_real	ref_nt_0dr (7.9.3.1.239)	0d reference of real type
zerod_int	ref_nt_0di (7.9.3.1.237)	0d reference of integer type
zerod_string	ref_nt_0ds (7.9.3.1.241)	0d reference of string type
oned_real	ref_nt_1dr (7.9.3.1.245)	1d reference of real type
oned_int	ref_nt_1di (7.9.3.1.243)	1d reference of integer type

Type of: reference:non_timed (1722)

7.9.3.1.237 ref_nt_0di

set of non-timed references of integer type

member	type	description
ref1	ref_nt_0di_ref (7.9.3.1.238)	Reference signal #1
ref2	ref_nt_0di_ref (7.9.3.1.238)	Reference signal #2
ref3	ref_nt_0di_ref (7.9.3.1.238)	Reference signal #3
ref4	ref_nt_0di_ref (7.9.3.1.238)	Reference signal #4

Type of: ref_nt:zerod_int (1910)

7.9.3.1.238 ref_nt_0di_ref

a non-timed reference of integer type

member	type	description
value	integer (7.9.3.1.3)	Value of the reference. Integer scalar.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_nt_0di:ref1 (1911) I ref_nt_0di:ref2 (1911) I ref_nt_0di:ref3 (1911) I ref_nt_0di:ref4 (1911)

7.9.3.1.239 ref_nt_0dr

set of non-timed references of real type

member	type	description
ref1	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #1
ref2	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #2
ref3	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #3
ref4	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #4
ref5	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #5
ref6	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #6
ref7	ref_nt_0dr_ref (7.9.3.1.240)	Reference signal #7

Type of: ref_nt:zerod_real (1910)

7.9.3.1.240 ref_nt_0dr_ref

a non-timed reference of real type

member	type	description
value	float (7.9.3.1.2)	Value of the reference. Real scalar.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_nt_0dr:ref1 (1913) I ref_nt_0dr:ref2 (1913) I ref_nt_0dr:ref3 (1913) I ref_nt_0dr:ref4 (1913) I ref_nt_0dr:ref5 (1913) I ref_nt_0dr:ref6 (1913) I ref_nt_0dr:ref7 (1913)

7.9.3.1.241 ref_nt_0ds

set of non-timed references of string type

member	type	description
ref1	ref_nt_0ds_ref (7.9.3.1.242)	Reference signal #1
ref2	ref_nt_0ds_ref (7.9.3.1.242)	Reference signal #2

Type of: ref_nt:zerod_string (1910)

7.9.3.1.242 ref_nt_0ds_ref

a non-timed reference of string type

member	type	description
value	string (7.9.3.1.4)	Value of the reference. String
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_nt_0ds:ref1 (1915) I ref_nt_0ds:ref2 (1915)

7.9.3.1.243 ref_nt_1di

set of non-timed references of vecint type

member	type	description
ref1	ref_nt_1di_ref (7.9.3.1.244)	Reference signal #1
ref2	ref_nt_1di_ref (7.9.3.1.244)	Reference signal #2
ref3	ref_nt_1di_ref (7.9.3.1.244)	Reference signal #3
ref4	ref_nt_1di_ref (7.9.3.1.244)	Reference signal #4

Type of: ref_nt:oned_int (1910)

7.9.3.1.244 ref_nt_1di_ref

a non-timed reference of vecint type

member	type	description
value	vecint_type (7.9.3.1.15)	Value of the reference. Vector of integers.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_nt_1di:ref1 (1917) I ref_nt_1di:ref2 (1917) I ref_nt_1di:ref3 (1917) I ref_nt_1di:ref4 (1917)

7.9.3.1.245 ref_nt_1dr

set of non-timed references of vecflt type

member	type	description
ref1	ref_nt_1dr_ref (7.9.3.1.246)	Reference signal #1
ref2	ref_nt_1dr_ref (7.9.3.1.246)	Reference signal #2
ref3	ref_nt_1dr_ref (7.9.3.1.246)	Reference signal #3
ref4	ref_nt_1dr_ref (7.9.3.1.246)	Reference signal #4
ref5	ref_nt_1dr_ref (7.9.3.1.246)	Reference signal #5

Type of: ref_nt:oned_real (1910)

7.9.3.1.246 ref_nt_1dr_ref

a non-timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of the reference. Vector.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_nt_1dr:ref1 (1919) I ref_nt_1dr:ref2 (1919) I ref_nt_1dr:ref3 (1919) I ref_nt_1dr:ref4 (1919) I ref_nt_1dr:ref5

(1919)

7.9.3.1.247 ref_t

set of timed references

member	type	description
zerod_real	ref_t_0dr (7.9.3.1.250)	0d reference of real type
zerod_int	ref_t_0di (7.9.3.1.248)	0d reference of integer type
oned_real	ref_t_1dr (7.9.3.1.254)	1d reference of real type
oned_int	ref_t_1di (7.9.3.1.252)	1d reference of integer type

Type of: reference:timed (1722)

7.9.3.1.248 ref_t_0di

set of timed references of integer type

member	type	description
ref1	ref_t_0di_ref (7.9.3.1.249)	Reference signal #1
ref2	ref_t_0di_ref (7.9.3.1.249)	Reference signal #2
ref3	ref_t_0di_ref (7.9.3.1.249)	Reference signal #3
ref4	ref_t_0di_ref (7.9.3.1.249)	Reference signal #4

Type of: ref_t:zerod_int (1921)

7.9.3.1.249 ref_t_0di_ref

a timed reference of integer type

member	type	description
value	integer (7.9.3.1.3)	Value of the reference. Integer scalar. Time-dependent.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_t_0di:ref1 (1922) I ref_t_0di:ref2 (1922) I ref_t_0di:ref3 (1922) I ref_t_0di:ref4 (1922)

7.9.3.1.250 ref_t_0dr

set of timed references of real type

member	type	description
ref1	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #1
ref2	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #2
ref3	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #3
ref4	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #4
ref5	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #5
ref6	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #6
ref7	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #7
ref8	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #8
ref9	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #9
ref10	ref_t_0dr_ref (7.9.3.1.251)	Reference signal #10

Type of: ref_t:zerod_real (1921)

7.9.3.1.251 ref_t_0dr_ref

a timed reference of real type

member	type	description
value	float (7.9.3.1.2)	Value of the reference. Real scalar. Time-dependent.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_t_0dr:ref1 (1924) I ref_t_0dr:ref10 (1924) I ref_t_0dr:ref2 (1924) I ref_t_0dr:ref3 (1924) I ref_t_0dr:ref4 (1924) I ref_t_0dr:ref5 (1924) I ref_t_0dr:ref6 (1924) I ref_t_0dr:ref7 (1924) I ref_t_0dr:ref8 (1924) I ref_t_0dr:ref9 (1924)

7.9.3.1.252 ref_t_1di

set of timed references of vecint type

member	type	description
ref1	ref_t_1di_ref (7.9.3.1.253)	Reference signal #1
ref2	ref_t_1di_ref (7.9.3.1.253)	Reference signal #2
ref3	ref_t_1di_ref (7.9.3.1.253)	Reference signal #3
ref4	ref_t_1di_ref (7.9.3.1.253)	Reference signal #4

Type of: ref_t:oned_int (1921)

7.9.3.1.253 ref_t_1di_ref

a timed reference of vecint type

member	type	description
value	vecint_type (7.9.3.1.15)	Value of the reference. Vector of integers. Time-dependent.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_t_1di:ref1 (1926) I ref_t_1di:ref2 (1926) I ref_t_1di:ref3 (1926) I ref_t_1di:ref4 (1926)

7.9.3.1.254 ref_t_1dr

set of timed references of vecflt type

member	type	description
ref1	ref_t_1dr_ref (7.9.3.1.255)	Reference signal #1
ref2	ref_t_1dr_ref (7.9.3.1.255)	Reference signal #2
ref3	ref_t_1dr_ref (7.9.3.1.255)	Reference signal #3
ref4	ref_t_1dr_ref (7.9.3.1.255)	Reference signal #4
ref5	ref_t_1dr_ref (7.9.3.1.255)	Reference signal #5

Type of: ref_t:oned_real (1921)

7.9.3.1.255 ref_t_1dr_ref

a timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of the reference. Vector. Time-dependent.
description	string (7.9.3.1.4)	Description of the reference. String.

Type of: ref_t_1dr:ref1 (1928) I ref_t_1dr:ref2 (1928) I ref_t_1dr:ref3 (1928) I ref_t_1dr:ref4 (1928) I ref_t_1dr:ref5 (1928)

7.9.3.1.256 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.3.1.14)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.3.1.14)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (1767)

7.9.3.1.257 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.3.1.309)	Spot characteristics
phaseellipse	phaseellipse (7.9.3.1.221)	Phase ellipse characteristics of the spot

Type of: antenna_ec:beam (1732) I antenna_lh:beam (1734)

7.9.3.1.258 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.3.1.2)	Major radius [m]
z	float (7.9.3.1.2)	Altitude [m]

Type of: circularcoil:centre (1748) I eqgeometry:active_limit (1830) I eqgeometry:geom_axis (1830) I eqgeometry:left_low_st (1830) I eqgeometry:left_up_st (1830) I eqgeometry:right_low_st (1830) I eqgeometry:right_up_st (1830) I mag_axis:position (1862)

7.9.3.1.259 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.3.1.14)	Major radius [m]
z	vecflt_type (7.9.3.1.14)	Altitude [m]

Type of: eqgeometry:xpts (1830) I flush:position (1837) I isoflux:position (1849) I limiter_unit:position (1859) I mhd_ideal_wall2d:position (1866) I mhd_res_wall2d:position (1868) I omnigen_surf:rz (1881) I planecoil:coordinates (1896) I q:position (1907) I setup_bprobe:position (1966) I straps:coord_strap (1988) I vessel:position (1730) I xpts:position (2025)

7.9.3.1.260 rz1D_npoints

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.3.1.14)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.3.1.14)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.3.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

Type of: eqgeometry:boundary (1830)

7.9.3.1.261 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.3.1.12)	Major radius [m]
z	matflt_type (7.9.3.1.12)	Altitude [m]

Type of: coord_sys:position (1767) I geom_iron:rzcoordinate (1843) I pfpageometry:rzcoordinate (1892)

7.9.3.1.262 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.3.1.6)	Major radius [m]

member	type	description
z	array3dflt_type (7.9.3.1.6)	Altitude [m]

Type of: pfgeometry:rzcoordinate (1891)

7.9.3.1.263 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.3.1.2)	Major radius [m]
z	float (7.9.3.1.2)	Altitude [m]
phi	float (7.9.3.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (1732) I antenna_lh:position (1734) I setup_inject:position (1968)

7.9.3.1.264 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.3.1.14)	Major radius [m]
z	vecflt_type (7.9.3.1.14)	Altitude [m]
phi	vecflt_type (7.9.3.1.14)	Toroidal angle [rad]

Type of: beamlets:position (1740) I launchs:position (1712) I setup_line:pivot_point (1969) I setup_line:second_point (1969) I setup_line:third_point (1969) I tssetup:position (2002)

7.9.3.1.265 rzphi1Dexp

Structure for list of R,Z,phi positions (1D)

member	type	description
r	exp1D (7.9.3.1.160)	Major radius [m]
z	exp1D (7.9.3.1.160)	Altitude [m]
phi	exp1D (7.9.3.1.160)	Toroidal angle [rad]

Type of: cxsetup:position (1782) I ecesetup:position (1817) I lang_derived:position (1851) I lang_measure:position (1852)

7.9.3.1.266 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.3.1.12)	Major radius [m]
z	matflt_type (7.9.3.1.12)	Altitude [m]
phi	matflt_type (7.9.3.1.12)	Toroidal angle [rad]

Type of: setup_floops:position (1967)

7.9.3.1.267 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.3.1.6)	Major radius [m]
z	array3dflt_type (7.9.3.1.6)	Altitude [m]
phi	array3dflt_type (7.9.3.1.6)	Toroidal angle [rad]

Type of: turbcoordsys:position (2004)

7.9.3.1.268 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.3.1.14)	Position : major radius [m]
z	vecflt_type (7.9.3.1.14)	Position : altitude [m]
phi	vecflt_type (7.9.3.1.14)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.3.1.14)	Width : major radius [m]
dz	vecflt_type (7.9.3.1.14)	Width : altitude [m]
dphi	vecflt_type (7.9.3.1.14)	Width : toroidal angle [rad]

Type of: setup_mse:rzgamma (1970)

7.9.3.1.269 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.3.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.3.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.3.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.3.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (1723)

7.9.3.1.270 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.3.1.14)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.3.1.12)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.3.1.14)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.3.1.12)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.3.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.3.1.14)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.3.1.14)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.3.1.14)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.3.1.14)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (1723)

7.9.3.1.271 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.3.1.288)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.3.1.288)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.3.1.288)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.3.1.288)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.3.1.288)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.3.1.288)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.3.1.288)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.3.1.288)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.3.1.288)	radius of magnetic axis [R]. Time-dependent.

member	type	description
Zmag	scenario_ref (7.9.3.1.288)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.3.1.288)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (1724)

7.9.3.1.272 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.3.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.3.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.3.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.3.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.3.1.15)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.3.1.14)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.3.1.14)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.3.1.14)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.3.1.14)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (1724)

7.9.3.1.273 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.3.1.280)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.3.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.3.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.3.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.3.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.3.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.3.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.3.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.3.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.3.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.3.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.3.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.3.1.4)	chemical compostion of the divertor
coordinate	string (7.9.3.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.3.1.288)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.3.1.288)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.3.1.280)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.3.1.288)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.3.1.288)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.3.1.280)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.3.1.288)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.3.1.288)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.3.1.280)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.3.1.288)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.3.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.3.1.288)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.3.1.288)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.3.1.288)	LHCD parallel indice []. Time-dependent.

member	type	description
pellet_ang	scenario_ref (7.9.3.1.288)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.3.1.288)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.3.1.288)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (1724)

7.9.3.1.274 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.3.1.288)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.3.1.288)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.3.1.288)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.3.1.288)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.3.1.288)	electron energy confimenent time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.3.1.288)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.3.1.288)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.3.1.288)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.3.1.288)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (1724)

7.9.3.1.275 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.3.1.288)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.3.1.288)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.3.1.288)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.3.1.288)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.3.1.288)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.3.1.288)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.3.1.288)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.3.1.288)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.3.1.288)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.3.1.288)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.3.1.288)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.3.1.288)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.3.1.288)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.3.1.288)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.3.1.288)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (1724)

7.9.3.1.276 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.3.1.288)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.3.1.288)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.3.1.288)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.3.1.288)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.3.1.288)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.3.1.288)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.3.1.288)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.3.1.288)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.3.1.288)	edge or effective safety factor value []. Time-dependent.

member	type	description
neutral_flux	scenario_ref (7.9.3.1.288)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.3.1.288)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.3.1.288)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (1724)

7.9.3.1.277 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.3.1.288)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.3.1.288)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.3.1.288)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.3.1.288)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.3.1.288)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.3.1.288)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.3.1.288)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.3.1.288)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.3.1.288)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.3.1.288)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.3.1.288)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.3.1.288)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.3.1.288)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.3.1.288)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.3.1.288)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.3.1.288)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (1724)

7.9.3.1.278 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.3.1.288)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.3.1.288)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.3.1.288)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.3.1.288)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.3.1.288)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.3.1.288)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.3.1.288)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.3.1.288)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.3.1.288)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.3.1.288)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.3.1.288)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.3.1.288)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.3.1.288)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.3.1.288)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.3.1.288)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.3.1.288)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (1724)

7.9.3.1.279 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.3.1.288)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.3.1.288)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.3.1.288)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.3.1.288)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.3.1.288)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.3.1.288)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.3.1.288)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.3.1.288)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.3.1.288)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.3.1.288)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.3.1.288)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.3.1.288)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.3.1.288)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.3.1.288)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.3.1.288)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.3.1.288)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.3.1.288)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.3.1.288)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.3.1.288)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.3.1.288)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.3.1.288)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.3.1.288)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.3.1.288)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.3.1.288)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.3.1.288)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.3.1.288)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.3.1.288)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.3.1.288)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.3.1.288)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.3.1.288)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.3.1.288)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.3.1.288)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.3.1.288)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.3.1.288)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.3.1.288)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.3.1.288)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.3.1.288)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.3.1.288)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (1724)

7.9.3.1.280 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.3.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.3.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (1947) I scenario_configuration:ecrh_harm (1947) I scenario_configuration:ecrh_mode (1947) I scenario_configuration:grad_b_drift (1947) I scenario_itb:itb_type (1955)

7.9.3.1.281 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.3.1.288)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.3.1.288)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.3.1.288)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.3.1.288)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.3.1.288)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.3.1.288)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.3.1.288)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.3.1.288)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.3.1.288)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.3.1.288)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.3.1.288)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.3.1.280)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (1724)

7.9.3.1.282 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.3.1.288)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.3.1.288)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.3.1.288)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.3.1.288)	limiter/divertor ion density [m^-3]. Time-dependent.
p_peak_div	scenario_ref (7.9.3.1.288)	peak power on divertor [W]. Time-dependent.
surf_temp	scenario_ref (7.9.3.1.288)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.3.1.288)	Power flux on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.3.1.288)	radiative power in the divertor zone [W]. Time-dependent.
wall_temp	scenario_ref (7.9.3.1.288)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.3.1.288)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.3.1.288)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.3.1.288)	flux pump out for each ion species [s^-1]. Time-dependent.

Type of: scenario:lim_div_wall (1724)

7.9.3.1.283 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.3.1.288)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.3.1.288)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.3.1.288)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.3.1.288)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (1724)

7.9.3.1.284 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.3.1.288)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.3.1.288)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.3.1.288)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.

member	type	description
ndd_nbi_nbi	scenario_ref (7.9.3.1.288)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.3.1.288)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.3.1.288)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (1724)

7.9.3.1.285 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.3.1.288)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.3.1.288)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.3.1.288)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.3.1.288)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.3.1.288)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.3.1.288)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.3.1.288)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.3.1.288)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.3.1.288)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.3.1.288)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.3.1.288)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.3.1.288)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (1724)

7.9.3.1.286 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.3.1.288)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.3.1.288)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.3.1.288)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.3.1.288)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.3.1.288)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.3.1.288)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.3.1.288)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.3.1.288)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.3.1.288)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.3.1.288)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (1724)

7.9.3.1.287 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.3.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (1724)

7.9.3.1.288 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.3.1.2)	Signal value; Time-dependent; Scalar

member	type	description
source	string (7.9.3.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (1945) I scenario_centre:Zmag (1945) I scenario_centre:ne0 (1945) I scenario_centre:ni0 (1945) I scenario_centre:phi0 (1945) I scenario_centre:psi0 (1945) I scenario_centre:q0 (1945) I scenario_centre:shift0 (1945) I scenario_centre:te0 (1945) I scenario_centre:ti0 (1945) I scenario_centre:vtor_0 (1945) I scenario_configuration:LH_freq (1947) I scenario_configuration:LH_npar (1947) I scenario_configuration:ecrh_freq (1947) I scenario_configuration:ecrh_loc (1947) I scenario_configuration:ecrh_pol_ang (1947) I scenario_configuration:ecrh_tor_ang (1947) I scenario_configuration:enb (1947) I scenario_configuration:icrh_freq (1947) I scenario_configuration:icrh_phase (1947) I scenario_configuration:pellet_ang (1947) I scenario_configuration:pellet_nba (1947) I scenario_configuration:pellet_v (1947) I scenario_configuration:r_nbi (1947) I scenario_confinement:tau_cur_diff (1948) I scenario_confinement:tau_e (1948) I scenario_confinement:tau_e_ee (1948) I scenario_confinement:tau_e_ei (1948) I scenario_confinement:tau_e_ii (1948) I scenario_confinement:tau_h_sc (1948) I scenario_confinement:tau_he (1948) I scenario_confinement:tau_i_rol (1948) I scenario_confinement:tau_l_sc (1948) I scenario_currents:RR (1949) I scenario_currents:i_align (1949) I scenario_currents:i_boot (1949) I scenario_currents:i_cd_tot (1949) I scenario_currents:i_eccd (1949) I scenario_currents:i_fast_ion (1949) I scenario_currents:i_fwcd (1949) I scenario_currents:i_lhcd (1949) I scenario_currents:i_nbicd (1949) I scenario_currents:i_ni_tot (1949) I scenario_currents:i_ohm (1949) I scenario_currents:i_par (1949) I scenario_currents:i_runaway (1949) I scenario_currents:v_loop (1949) I scenario_currents:v_meas (1949) I scenario_edge:drho_edge_dt (1950) I scenario_edge:ne_edge (1950) I scenario_edge:neutral_flux (1950) I scenario_edge:ni_edge (1950) I scenario_edge:phi_edge (1950) I scenario_edge:phi_plasma (1950) I scenario_edge:psi_edge (1950) I scenario_edge:q_edge (1950) I scenario_edge:rho_edge (1950) I scenario_edge:te_edge (1950) I scenario_edge:ti_edge (1950) I scenario_edge:vtor_edge (1950) I scenario_energy:dwbpol_dt (1951) I scenario_energy:dwbtorpla_dt (1951) I scenario_energy:dwdia_dt (1951) I scenario_energy:dwth_dt (1951) I scenario_energy:dwtot_dt (1951) I scenario_energy:esup_alpha (1951) I scenario_energy:esup_icrhper (1951) I scenario_energy:esup_icrhtot (1951) I scenario_energy:esup_lhcd (1951) I scenario_energy:esup_nbiperp (1951) I scenario_energy:esup_nbitot (1951) I scenario_energy:w_b_pol (1951) I scenario_energy:w_b_tor_pla (1951) I scenario_energy:w_dia (1951) I scenario_energy:w_th (1951) I scenario_energy:w_tot (1951) I scenario_global:area_ext (1952) I scenario_global:area_pol (1952) I scenario_global:beta_n_th (1952) I scenario_global:beta_normal (1952) I scenario_global:beta_pol (1952) I scenario_global:beta_pol_th (1952) I scenario_global:beta_tor (1952) I scenario_global:beta_tor_th (1952) I scenario_global:dip_dt (1952) I scenario_global:disruption (1952) I scenario_global:ip (1952) I scenario_global:len_sepa (1952) I scenario_global:li (1952) I scenario_global:mode_h (1952) I scenario_global:s_alpha (1952) I scenario_global:volume (1952) I scenario_heat_power:p_l2h_sc (1953) I scenario_heat_power:p_l2h_thr (1953) I scenario_heat_power:p_nbi_icrh (1953) I scenario_heat_power:p_w (1953) I scenario_heat_power:p_wth (1953) I scenario_heat_power:padd_tot (1953) I scenario_heat_power:pbrem (1953) I scenario_heat_power:pcyclo (1953) I scenario_heat_power:pdd_fus (1953) I scenario_heat_power:pecrh (1953) I scenario_heat_power:pecrh_th (1953) I scenario_heat_power:pei (1953) I scenario_heat_power:pel_fus (1953) I scenario_heat_power:pel_icrh (1953) I scenario_heat_power:pel_nbi (1953) I scenario_heat_power:pel_tot (1953) I scenario_heat_power:pfus_dt (1953) I scenario_heat_power:pfus_nbi (1953) I scenario_heat_power:pfus_th (1953) I scenario_heat_power:picrh (1953) I scenario_heat_power:picrh_th (1953) I scenario_heat_power:pion_fus (1953) I scenario_heat_power:pion_icrh (1953) I scenario_heat_power:pion_nbi (1953) I scenario_heat_power:pion_tot (1953) I scenario_heat_power:pioniz (1953) I scenario_heat_power:plh (1953) I scenario_heat_power:plh_th (1953) I scenario_heat_power:ploss (1953) I scenario_heat_power:ploss_fus (1953) I scenario_heat_power:ploss_icrh (1953) I scenario_heat_power:ploss_nbi (1953) I scenario_heat_power:pnbi (1953) I scenario_heat_power:pnbi_co_cur (1953) I scenario_heat_power:pnbi_counter (1953) I scenario_heat_power:pnbi_th (1953) I scenario_heat_power:pohmic (1953) I scenario_heat_power:prad (1953) I scenario_itb:h_itb (1955) I scenario_itb:ne_itb (1955) I scenario_itb:ni_itb (1955) I scenario_itb:phi_itb (1955) I scenario_itb:psi_itb (1955) I scenario_itb:q_min (1955) I scenario_itb:rho_itb (1955) I scenario_itb:te_itb (1955) I scenario_itb:ti_itb (1955) I scenario_itb:vtor_itb (1955) I scenario_itb:width_itb (1955) I scenario_lim_div_wall:detach_st (1956) I scenario_lim_div_wall:ne_lim_div (1956) I scenario_lim_div_wall:ni_lim_div (1956) I scenario_lim_div_wall:p_lim_div (1956) I scenario_lim_div_wall:p_peak_div (1956) I scenario_lim_div_wall:p_rad_div (1956) I scenario_lim_div_wall:pump_flux (1956) I scenario_lim_div_wall:surf_temp (1956) I scenario_lim_div_wall:te_lim_div (1956) I scenario_lim_div_wall:ti_lim_div (1956) I scenario_lim_div_wall:wall_state (1956) I scenario_lim_div_wall:wall_temp (1956) I scenario_line_ave:dne_line_dt (1957) I scenario_line_ave:ne_line (1957) I scenario_line_ave:ne_zeff_line (1957) I scenario_line_ave:zeff_line (1957) I scenario_neutron:ndd_nbi_nbi (1958) I scenario_neutron:ndd_nbi_th (1958) I scenario_neutron:ndd_th (1958) I scenario_neutron:ndd_tot (1958) I scenario_neutron:ndt_th (1958) I scenario_neutron:ndt_tot (1958) I scenario_ninety_five:elon (1959) I scenario_ninety_five:ne_95 (1959) I scenario_ninety_five:ni_95 (1959) I scenario_ninety_five:phi_95 (1959) I scenario_ninety_five:q_95 (1959) I scenario_ninety_five:rho_95 (1959) I scenario_ninety_five:te_95 (1959) I scenario_ninety_five:ti_95 (1959) I scenario_ninety_five:tria_95 (1959) I scenario_ninety_five:tria_lo_95 (1959) I scenario_ninety_five:tria_up_95 (1959) I scenario_ninety_five:vtor_95 (1959) I scenario_pedestal:ne_ped (1960) I scenario_pedestal:ni_ped (1960) I scenario_pedestal:phi_ped (1960) I scenario_pedestal:pressure_ped (1960) I scenario_pedestal:psi_ped (1960) I scenario_pedestal:q_ped (1960) I scenario_pedestal:rho_ped (1960) I scenario_pedestal:te_ped (1960) I scenario_pedestal:ti_ped (1960) I scenario_pedestal:vtor_ped (1960) I scenario_references:bvac_r (1963)

I scenario_references:enhancement (1963) I scenario_references:gas_puff (1963) I scenario_references:ip (1963) I scenario_references:isotopic (1963) I scenario_references:nbar (1963) I scenario_references:nbi_td_ratio (1963) I scenario_references:pecrh (1963) I scenario_references:picrh (1963) I scenario_references:plh (1963) I scenario_references:pnbi (1963) I scenario_references:pol_flux (1963) I scenario_references:xecrh (1963) I scenario_references:zeffl (1963) I scenario_sol:gas_puff (1964) I scenario_sol:l_ne_sol (1964) I scenario_sol:l_ni_sol (1964) I scenario_sol:l_qe_sol (1964) I scenario_sol:l_qi_sol (1964) I scenario_sol:l_te_sol (1964) I scenario_sol:l_ti_sol (1964) I scenario_sol:p_rad_sol (1964) I scenario_vol_ave:dne_ave_dt (1965) I scenario_vol_ave:meff_ave (1965) I scenario_vol_ave:ne_ave (1965) I scenario_vol_ave:ni_ave (1965) I scenario_vol_ave:omega_ave (1965) I scenario_vol_ave:pellet_flux (1965) I scenario_vol_ave:te_ave (1965) I scenario_vol_ave:ti_ave (1965) I scenario_vol_ave:ti_o_te_ave (1965) I scenario_vol_ave:zeff_ave (1965)

7.9.3.1.289 scenario_references

References

member	type	description
plh	scenario_ref (7.9.3.1.288)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.3.1.288)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.3.1.288)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.3.1.288)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.3.1.288)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.3.1.288)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.3.1.288)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.3.1.288)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.3.1.288)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.3.1.288)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.3.1.288)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.3.1.288)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.3.1.288)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.3.1.288)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (1724)

7.9.3.1.290 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.3.1.288)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.3.1.288)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.3.1.288)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.3.1.288)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.3.1.288)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.3.1.288)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.3.1.288)	radiative power of the SOL [W]. Time-dependent.
gas_puff	scenario_ref (7.9.3.1.288)	gas puff flux for each ion species [s^-1]. Time-dependent.

Type of: scenario:sol (1724)

7.9.3.1.291 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.3.1.288)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.3.1.288)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.3.1.288)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.3.1.288)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.3.1.288)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.3.1.288)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.3.1.288)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.

member	type	description
meff_ave	scenario_ref (7.9.3.1.288)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.3.1.288)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.3.1.14)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.3.1.288)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (1724)

7.9.3.1.292 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.3.1.16)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.3.1.259)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.3.1.14)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.3.1.14)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.3.1.14)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.3.1.14)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.3.1.15)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (1747)

7.9.3.1.293 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.3.1.16)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.3.1.16)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.3.1.266)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.3.1.15)	Number of points describing each loop in the ”position” matrices. Vector (nloops)

Type of: flux_loops:setup_floops (1838)

7.9.3.1.294 setup_inject

Detailed information on an injection unit.

member	type	description
position	rzphi0D (7.9.3.1.263)	Position of centre of injection unit surface.
tang_rad	float (7.9.3.1.2)	Tagency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.3.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.3.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
focal_len_hz	float (7.9.3.1.2)	Horizontal focal length along the beam line [m]
focal_len_vc	float (7.9.3.1.2)	Vertical focal length along the beam line [m]
divergence	divergence (7.9.3.1.141)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide ”frac_divcomp” and vertical/horizontal divergence ”div_vert”/”div_horiz”. Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.3.1.66)	Detailed information on beamlets.

Type of: nbi_unit:setup_inject (1874)

7.9.3.1.295 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.3.1.264)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.3.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.3.1.14)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.3.1.14)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.3.1.264)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.3.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.3.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.3.1.264)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.3.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: counts:setup_line (1780) I lineintegraldiag:setup_line (1860)

7.9.3.1.296 setup_mse

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.3.1.268)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.3.1.12)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: msediag:setup_mse (1716)

7.9.3.1.297 source

Source. Time-dependent. Structure array. Replicate this source structure for each neutron or gamma with a particular energy.

member	type	description
fus_product	string (7.9.3.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.3.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
counts	counts (7.9.3.1.106)	Integrated emissivity [m^-2.s^-1].
emissivity1d	emissivity1d (7.9.3.1.152)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	emissivity2d (7.9.3.1.153)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.3.1.75)	Code parameters

Type of: fusiondiag:source (1708)

7.9.3.1.298 source_el

Subtree containing source terms for electrons

member	type	description
exp	vecflt_type (7.9.3.1.14)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.3.1.14)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource:qe (1700) I coresource:se (1700)

7.9.3.1.299 source_grid

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid_info	grid_info (7.9.3.1.173)	Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.
dim1	array6dflt_type (7.9.3.1.10)	Grid in the first dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim2	array6dflt_type (7.9.3.1.10)	Grid in the second dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim3	array6dflt_type (7.9.3.1.10)	Grid in the third dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim4	array6dflt_type (7.9.3.1.10)	Grid in the fourth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim5	array6dflt_type (7.9.3.1.10)	Grid in the fifth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim6	array6dflt_type (7.9.3.1.10)	Grid in the sixth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
jacobian	array6dflt_type (7.9.3.1.10)	Jacobian of the phase space grid coordinate system specified in grid_coord. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
source	array6dflt_type (7.9.3.1.10)	Source rate of particles in phase space. The units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if continuous. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)

Type of: distsource_source:source_grid (1814)

7.9.3.1.300 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	array3dflt_type (7.9.3.1.6)	Explicit source term [same unit as root quantity]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
imp	array3dflt_type (7.9.3.1.6)	Implicit source term [s^-1.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)

Type of: coresource:qz (1700) I coresource:sz (1700)

7.9.3.1.301 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.3.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.3.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource:qi (1700) I coresource:si (1700) I coresource:ui (1700)

7.9.3.1.302 source_mark

Source given as a set of markers (test particles)

member	type	description
var_coord	vecint_type (7.9.3.1.15)	Identifies the coordinates specifies in var1, var2, var3, var4, var5, var6 and var7. var_coord(K) describe the coordinate represented in varK, for K=1,2...7. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T/m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
gyrosrc_type	integer (7.9.3.1.3)	Defines how to interpret the source: 1 = the source is calulated at the particle birth point; 2 = the source is calulated at the gyro centre of the birth point.

member	type	description
var1	vecflt_type (7.9.3.1.14)	Phase space variable number one characterising the markers. Time-dependent; Vector (n_particles)
var2	vecflt_type (7.9.3.1.14)	Phase space variable number two characterising the markers. Time-dependent; Vector (n_particles)
var3	vecflt_type (7.9.3.1.14)	Phase space variable number three characterising the markers. Time-dependent; Vector (n_particles)
var4	vecflt_type (7.9.3.1.14)	Phase space variable number four characterising the markers. Time-dependent; Vector (n_particles)
var5	vecflt_type (7.9.3.1.14)	Phase space variable number five characterising the markers. Time-dependent; Vector (n_particles)
var6	vecflt_type (7.9.3.1.14)	Phase space variable number six characterising the markers. Time-dependent; Vector (n_particles)
var7	vecflt_type (7.9.3.1.14)	Phase space variable number seven characterising the markers. Time-dependent; Vector (n_particles)
weight	vecflt_type (7.9.3.1.14)	Weight of the markers; Time-dependent; Vector (n_particles)

Type of: distsource_source:source_mark (1814)

7.9.3.1.303 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.3.1.14)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.3.1.14)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.3.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (1769)

7.9.3.1.304 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	array3dflt_type (7.9.3.1.6)	Value of the source term [m^-3.s^-1]; Time-dependent; Array3D (nrho,nimp,max_nzimp)
integral	array3dflt_type (7.9.3.1.6)	Integral from 0 to rho of the source term. Time-dependent; Array3D(nsource,nimp,max_nzimp)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: coreimpur:source_term (1697)

7.9.3.1.305 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.3.1.12)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.3.1.12)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.3.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (1770)

7.9.3.1.306 special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	midplane (7.9.3.1.198)	Intersections with the midplane
turning_pts	turning_pts (7.9.3.1.340)	Location of turning points

Type of: orb_glob_dat:special_pos (1882)

7.9.3.1.307 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.3.1.4)	Name of species
amn	float (7.9.3.1.2)	Atomic mass number of the species
zn	float (7.9.3.1.2)	Nuclear charge of the impurity
zmin	float (7.9.3.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.3.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (1706)

7.9.3.1.308 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.3.1.181)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.3.1.180)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (1712)

7.9.3.1.309 spot

Spot characteristics

member	type	description
waist	vecflt_type (7.9.3.1.14)	Waist for the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.3.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (1931)

7.9.3.1.310 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	matflt_type (7.9.3.1.12)	Effective coefficient of physical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.
chemical	matflt_type (7.9.3.1.12)	Effective coefficient of chemical sputtering of the neutral type INEUT due to ion type IION. Matrix(nneut,nion). Time-dependent.

Type of: coefficients_neutrals:sputtering (1750)

7.9.3.1.311 src_snk_fav

member	type	description
particles	vecflt_type (7.9.3.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.3.1.14)	Power density associated with the source/sink of particles [W/m^3]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.3.1.14)	Torque density due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.3.1.312 src_snk_int

member	type	description
particles	vecflt_type (7.9.3.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)

member	type	description
power	vecflt_type (7.9.3.1.14)	Power associated with the source/sink of particles [MW/m^3]; Time-dependent; Vector(npsi)
torque	vecflt_type (7.9.3.1.14)	Torque due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.3.1.313 src_snk_tot

member	type	description
particles	float (7.9.3.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.3.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.3.1.2)	Torque due to the source/sink of particles [Nm]; Time-dependent

7.9.3.1.314 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
phase	exp0D (7.9.3.1.159)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.3.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.3.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.3.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float
coord_strap	rz1D (7.9.3.1.259)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (1736)

7.9.3.1.315 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
table_0d	float (7.9.3.1.2)	NO DOCS
table_1d	vecflt_type (7.9.3.1.14)	NO DOCS
table_2d	matflt_type (7.9.3.1.12)	NO DOCS
table_3d	array3dflt_type (7.9.3.1.6)	NO DOCS
table_4d	array4dflt_type (7.9.3.1.8)	NO DOCS
table_5d	array5dflt_type (7.9.3.1.9)	NO DOCS
table_6d	array6dflt_type (7.9.3.1.10)	NO DOCS

Type of: tables:table (1990)

7.9.3.1.316 tables

Definition of a process

member	type	description
ndim	integer (7.9.3.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.3.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.3.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.3.1.4)	Unit of the process result
result_trans	integer (7.9.3.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()
table	table (7.9.3.1.315)	Array of data tables, one entry per species. Vector(nchargestates)

Type of: amns:tables (1694)

7.9.3.1.317 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords	coords (7.9.3.1.94)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (1694)

7.9.3.1.318 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.3.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.3.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.3.1.74)	Circular coil description
planecoil	planecoil (7.9.3.1.222)	Plane coil description
structure	tf_structure (7.9.3.1.319)	Inner TF coil structure

Type of: toroidfield:desc_tfcoils (1727)

7.9.3.1.319 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.3.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.3.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.3.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.3.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.3.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.3.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.3.1.2)	Amplification factor for magnetic field
ritf	float (7.9.3.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.3.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.3.1.2)	External TF coil radius [m]; Scalar

Type of: tf_desc_tfcoils:structure (1992)

7.9.3.1.320 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.3.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.3.1.12)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (2019)

7.9.3.1.321 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.3.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.3.1.10)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.3.1.10)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.3.1.10)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.3.1.10)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.3.1.10)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).

member	type	description
dim6	array6dflt_type (7.9.3.1.10)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.3.1.10)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.3.1.10)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.3.1.322 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.3.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.3.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.3.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.3.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (1699)

7.9.3.1.323 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.3.1.14)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.3.1.14)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.3.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.3.1.205)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:te_transp (1701) I neoclassic:mtor_neo (1718) I neoclassic:ne_neo (1718) I neoclassic:te_neo (1718)

7.9.3.1.324 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	array3dflt_type (7.9.3.1.6)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
vconv_eff	array3dflt_type (7.9.3.1.6)	Effective convection [m.s^-1]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
exchange	array3dflt_type (7.9.3.1.6)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flux	array3dflt_type (7.9.3.1.6)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array3d (nrho,nimp,max_nzimp)
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp:nz_transp (1701) I coretransp:tz_transp (1701) I neoclassic:nz_neo (1718) I neoclassic:tz_neo (1718)

7.9.3.1.325 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.3.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.3.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.3.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.3.1.12)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.3.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.3.1.206)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:ti_transp (1701) I neoclassic:ni_neo (1718) I neoclassic:ti_neo (1718)

7.9.3.1.326 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.3.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.3.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.3.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.3.1.206)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.3.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp:vtor_transp (1701)

7.9.3.1.327 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.3.1.160)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.3.1.160)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (1728)

7.9.3.1.328 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.3.1.264)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (1728)

7.9.3.1.329 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.3.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.3.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.3.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
ie_mass	vecflt_type (7.9.3.1.14)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (1729)

7.9.3.1.330 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.3.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.3.1.332)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.3.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.3.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.3.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.3.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.3.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.3.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.3.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.3.1.267)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (1729)

7.9.3.1.331 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.3.1.14)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.3.1.14)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.3.1.14)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.3.1.14)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.3.1.14)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.3.1.14)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.3.1.14)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.3.1.12)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.3.1.12)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.3.1.12)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.3.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.3.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.3.1.12)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.3.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.3.1.12)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (1729)

7.9.3.1.332 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.3.1.14)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.3.1.14)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.3.1.14)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.3.1.14)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.3.1.14)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (2004)

7.9.3.1.333 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.3.1.14)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.3.1.14)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.3.1.14)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.3.1.14)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.3.1.14)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.3.1.14)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.3.1.14)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.3.1.12)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.3.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.3.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.3.1.12)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.3.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.3.1.12)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (1729)

7.9.3.1.334 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.3.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.3.1.14)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.3.1.14)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).
en_mag	vecflt_type (7.9.3.1.14)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.3.1.14)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.3.1.12)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.3.1.14)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.3.1.12)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.3.1.14)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.3.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.3.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.3.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.3.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.3.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.3.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.3.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.3.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (1729)

7.9.3.1.335 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.3.1.14)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.3.1.14)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.3.1.14)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.3.1.14)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.3.1.14)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.3.1.14)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.3.1.14)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.3.1.12)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.3.1.12)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.3.1.12)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (1729)

7.9.3.1.336 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.3.1.14)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.3.1.12)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.3.1.12)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.3.1.12)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.3.1.12)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.3.1.12)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.3.1.12)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.3.1.6)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.3.1.6)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.3.1.6)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (1729)

7.9.3.1.337 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.3.1.6)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.3.1.6)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.3.1.6)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.3.1.6)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (1729)

7.9.3.1.338 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.3.1.8)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.3.1.9)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (1729)

7.9.3.1.339 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.3.1.9)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).
fi	array6dflt_type (7.9.3.1.10)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (1729)

7.9.3.1.340 turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.3.1.210)	Position at upper turning point
lower	orbit_pos (7.9.3.1.210)	Position at lower turning point

Type of: special_pos:turning_pts (1980)

7.9.3.1.341 typelist

Definition of types for each neutral species

member	type	description
ntype	vecint_type (7.9.3.1.15)	For each neutral species, number of possible types considered (in terms of energy : cold, thermal, fast, NBI, ...). Vector of integers (nneut)
type	matint_type (7.9.3.1.13)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Matrix of integers (nneut,max_ntype)

Type of: composition_neutrals:typelist (1766)

7.9.3.1.342 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.3.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.3.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.3.1.15)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.3.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.3.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.3.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.3.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.3.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.3.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.3.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.3.1.14)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.3.1.14)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (1873)

7.9.3.1.343 waves_global_param

Global wave deposition parameters

member	type	description
frequency	float (7.9.3.1.2)	Wave frequency [Hz]; Time-dependent, floating
name	string (7.9.3.1.4)	Antenna name, String
type	string (7.9.3.1.4)	Wave type (LH, EC, IC, ...), String
ntor	vecint_type (7.9.3.1.15)	Toroidal mode numbers; Time-dependent; Vector (ntor)
f_assumption	vecint_type (7.9.3.1.15)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
power_tot	float (7.9.3.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.3.1.14)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_i	vecflt_type (7.9.3.1.14)	Wave power absorbed by an ion species [W]; Time-dependent; Vector (nion)
pow_e	float (7.9.3.1.2)	Wave power absorbed by the electrons [W]; Time-dependent; Float
pow_ntor_i	matflt_type (7.9.3.1.12)	Wave power absorbed by an ion species per toroidal mode number [W]; Time-dependent; Matrix (ntor,nion)
pow_ntor_e	vecflt_type (7.9.3.1.14)	Wave power absorbed by the electrons per toroidal mode number [W]; Time-dependent; Vector (ntor)
cur_tor	float (7.9.3.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.3.1.14)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
code_type	integer (7.9.3.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
toroid_field	b0r0 (7.9.3.1.65)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of parallel current densities in this CPO; Float.

Type of: coherentwave:global_param (1751)

7.9.3.1.344 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.3.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.3.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.3.1.14)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (1751)

7.9.3.1.345 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.3.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.3.1.12)	Normalised toroidal flux coordinate at the grid points for the 2D profiles; Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.3.1.12)	Toroidal flux coordinate at the grid points for the 2D profiles [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.3.1.12)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.3.1.12)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.3.1.12)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.3.1.12)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.3.1.320)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (1751)

7.9.3.1.346 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.3.1.14)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.3.1.14)	Flux surface averaged absorbed wave power density on electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.3.1.12)	Flux surface averaged absorbed wave power density on ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_ntor	matflt_type (7.9.3.1.12)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.3.1.12)	Flux surface averaged absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.3.1.6)	Flux surface averaged power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
curd_tor	vecflt_type (7.9.3.1.14)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.3.1.12)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.3.1.14)	Volume integrated absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.3.1.14)	Volume integrated absorbed wave power density on electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.3.1.12)	Volume integrated absorbed wave power density on ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_ntor	array3dflt_type (7.9.3.1.6)	Volume integrated power density for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.3.1.12)	Volume integrated power density for each toroidal mode number on the electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.3.1.6)	Volume integrated power density for each toroidal mode number on each ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)

member	type	description
curd_par	vecflt_type (7.9.3.1.14)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.3.1.12)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.3.1.14)	Wave driven toroidal current inside a flux surface from stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.3.1.12)	Wave driven toroidal current inside a flux surface for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (1751)

7.9.3.1.347 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.3.1.12)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.3.1.12)	Absorbed wave power density on electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.3.1.6)	Absorbed wave power density on ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_ntor	array3dflt_type (7.9.3.1.6)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.3.1.6)	Absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.3.1.8)	Absorbed power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_iharm	array5dflt_type (7.9.3.1.9)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (1751)

7.9.3.1.348 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.3.1.14)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.3.1.14)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.3.1.14)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.3.1.14)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.3.1.14)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (1741)

7.9.3.1.349 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.3.1.14)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.3.1.14)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.3.1.14)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent
npar	vecflt_type (7.9.3.1.14)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.3.1.14)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.3.1.14)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.3.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (1741)

7.9.3.1.350 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.3.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.3.1.4)	Name of the device
shot	integer (7.9.3.1.3)	Shot number
run	integer (7.9.3.1.3)	Run number
occurrence	integer (7.9.3.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (1783)

7.9.3.1.351 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.3.1.259)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.3.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.3.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.3.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.3.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.3.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (1829) itmtypes [559]

7.9.3.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.3.2.1 Fortran

7.9.3.2.2 amns

datainfo (1694)	amns%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	amns%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	amns%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	amns%datainfo%source (string) (7.9.3.1.4)
comment (1783)	amns%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	amns%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	amns%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	amns%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	amns%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	amns%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	amns%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	amns%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	amns%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	amns%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	amns%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	amns%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	amns%datainfo%putinfo%rights (string) (7.9.3.1.4)
version (1694)	amns%version (string) (7.9.3.1.4)
source (1694)	amns%source (string) (7.9.3.1.4)
zn (1694)	amns%zn (integer) (7.9.3.1.3)
amn (1694)	amns%amn (float) (7.9.3.1.2)
zion (1694)	amns%zion (vecint_type) (7.9.3.1.15)
state_label (1694)	amns%state_label (vecstring_type) (7.9.3.1.16)
bundled (1694)	amns%bundled (integer) (7.9.3.1.3)

[559] https://www.efda-itm.eu/ITM/html/itmtypes__4.09a.html

proc_label (1694)	amns%proc_label (vecstring_type) (7.9.3.1.16)
tables (1694)	amns%tables (tables) (7.9.3.1.316)
ndim (1990)	amns%tables%ndim (integer) (7.9.3.1.3)
coord_index (1990)	amns%tables%coord_index (integer) (7.9.3.1.3)
result_label (1990)	amns%tables%result_label (string) (7.9.3.1.4)
result_unit (1990)	amns%tables%result_unit (string) (7.9.3.1.4)
result_trans (1990)	amns%tables%result_trans (integer) (7.9.3.1.3)
table (1990)	amns%tables%table (table) (7.9.3.1.315)
table_0d (1989)	amns%tables%table%table_0d (float) (7.9.3.1.2)
table_1d (1989)	amns%tables%table%table_1d (vecflt_type) (7.9.3.1.14)
table_2d (1989)	amns%tables%table%table_2d (matflt_type) (7.9.3.1.12)
table_3d (1989)	amns%tables%table%table_3d (array3dflt_type) (7.9.3.1.6)
table_4d (1989)	amns%tables%table%table_4d (array4dflt_type) (7.9.3.1.8)
table_5d (1989)	amns%tables%table%table_5d (array5dflt_type) (7.9.3.1.9)
table_6d (1989)	amns%tables%table%table_6d (array6dflt_type) (7.9.3.1.10)
tables_coord (1694)	amns%tables_coord (tables_coord) (7.9.3.1.317)
coords (1991)	amns%tables_coord%coords (coords) (7.9.3.1.94)
coord (1768)	amns%tables_coord%coords%coord (vecflt_type) (7.9.3.1.14)
coord_label (1768)	amns%tables_coord%coords%coord_label (vecstring_type) (7.9.3.1.16)
extrap_type (1768)	amns%tables_coord%coords%extrap_type (vecint_type) (7.9.3.1.15)
interp_type (1768)	amns%tables_coord%coords%interp_type (integer) (7.9.3.1.3)
label (1768)	amns%tables_coord%coords%label (string) (7.9.3.1.4)
unit (1768)	amns%tables_coord%coords%unit (string) (7.9.3.1.4)
transform (1768)	amns%tables_coord%coords%transform (integer) (7.9.3.1.3)
spacing (1768)	amns%tables_coord%coords%spacing (integer) (7.9.3.1.3)

7.9.3.2.3 antennas

datainfo (1695)	antennas%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	antennas%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	antennas%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	antennas%datainfo%source (string) (7.9.3.1.4)
comment (1783)	antennas%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	antennas%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	antennas%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	antennas%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	antennas%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	antennas%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	antennas%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	antennas%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	antennas%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	antennas%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	antennas%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	antennas%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	antennas%datainfo%putinfo%rights (string) (7.9.3.1.4)
antenna_unit (1695)	antennas%antenna_unit (antenna_unit) (7.9.3.1.61)
antenna_ec (1735)	antennas%antenna_unit%antenna_ec (antenna_ec) (7.9.3.1.58)
name (1732)	antennas%antenna_unit%antenna_ec%name (string) (7.9.3.1.4)
frequency (1732)	antennas%antenna_unit%antenna_ec%frequency (float) (7.9.3.1.2)
power (1732)	antennas%antenna_unit%antenna_ec%power (exp0D) (7.9.3.1.159)
value (1833)	antennas%antenna_unit%antenna_ec%power%value (float) (7.9.3.1.2)
abserror (1833)	antennas%antenna_unit%antenna_ec%power%abserror (float) (7.9.3.1.2)
relerror (1833)	antennas%antenna_unit%antenna_ec%power%relerror (float) (7.9.3.1.2)
mode (1732)	antennas%antenna_unit%antenna_ec%mode (integer) (7.9.3.1.3)
position (1732)	antennas%antenna_unit%antenna_ec%position (rzphi0D) (7.9.3.1.263)
r (1937)	antennas%antenna_unit%antenna_ec%position%r (float) (7.9.3.1.2)
z (1937)	antennas%antenna_unit%antenna_ec%position%z (float) (7.9.3.1.2)
phi (1937)	antennas%antenna_unit%antenna_ec%position%phi (float) (7.9.3.1.2)
launchangles (1732)	antennas%antenna_unit%antenna_ec%launchangles (launchangles) (7.9.3.1.179)
alpha (1853)	antennas%antenna_unit%antenna_ec%launchangles%alpha (float) (7.9.3.1.2)
beta (1853)	antennas%antenna_unit%antenna_ec%launchangles%beta (float) (7.9.3.1.2)

beam (1732)	antennas%antenna_unit%antenna_ec%beam (rfbeam) (7.9.3.1.257)
spot (1931)	antennas%antenna_unit%antenna_ec%beam%spot (spot) (7.9.3.1.309)
waist (1983)	antennas%antenna_unit%antenna_ec%beam%spot%waist (vecflt_type) (7.9.3.1.14)
angle (1983)	antennas%antenna_unit%antenna_ec%beam%spot%angle (float) (7.9.3.1.2)
phaseellipse (1931)	antennas%antenna_unit%antenna_ec%beam%phaseellipse (phaseellipse) (7.9.3.1.221)
invcurvrad (1895)	antennas%antenna_unit%antenna_ec%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.3.1.14)
angle (1895)	antennas%antenna_unit%antenna_ec%beam%phaseellipse%angle (float) (7.9.3.1.2)
antenna_ic (1735)	antennas%antenna_unit%antenna_ic (antenna_ic) (7.9.3.1.59)
name (1733)	antennas%antenna_unit%antenna_ic%name (string) (7.9.3.1.4)
frequency (1733)	antennas%antenna_unit%antenna_ic%frequency (exp0D) (7.9.3.1.159)
value (1833)	antennas%antenna_unit%antenna_ic%frequency%value (float) (7.9.3.1.2)
abserror (1833)	antennas%antenna_unit%antenna_ic%frequency%abserror (float) (7.9.3.1.2)
relerror (1833)	antennas%antenna_unit%antenna_ic%frequency%relerror (float) (7.9.3.1.2)
power (1733)	antennas%antenna_unit%antenna_ic%power (exp0D) (7.9.3.1.159)
value (1833)	antennas%antenna_unit%antenna_ic%power%value (float) (7.9.3.1.2)
abserror (1833)	antennas%antenna_unit%antenna_ic%power%abserror (float) (7.9.3.1.2)
relerror (1833)	antennas%antenna_unit%antenna_ic%power%relerror (float) (7.9.3.1.2)
setup (1733)	antennas%antenna_unit%antenna_ic%setup (antennaic_setup) (7.9.3.1.62)
straps (1736)	antennas%antenna_unit%antenna_ic%setup%straps (straps) (7.9.3.1.314)
phase (1988)	antennas%antenna_unit%antenna_ic%setup%straps%phase (exp0D) (7.9.3.1.159)
value (1833)	antennas%antenna_unit%antenna_ic%setup%straps%phase%value (float) (7.9.3.1.2)
abserror (1833)	antennas%antenna_unit%antenna_ic%setup%straps%phase%abserror (float) (7.9.3.1.2)
relerror (1833)	antennas%antenna_unit%antenna_ic%setup%straps%phase%relerror (float) (7.9.3.1.2)
phi_centre (1988)	antennas%antenna_unit%antenna_ic%setup%straps%phi_centre (float) (7.9.3.1.2)
width (1988)	antennas%antenna_unit%antenna_ic%setup%straps%width (float) (7.9.3.1.2)
dist2wall (1988)	antennas%antenna_unit%antenna_ic%setup%straps%dist2wall (float) (7.9.3.1.2)
coord_strap (1988)	antennas%antenna_unit%antenna_ic%setup%straps%coord_strap (rz1D) (7.9.3.1.259)
r (1933)	antennas%antenna_unit%antenna_ic%setup%straps%coord_strap%r (vecflt_type) (7.9.3.1.14)
z (1933)	antennas%antenna_unit%antenna_ic%setup%straps%coord_strap%z (vecflt_type) (7.9.3.1.14)
antenna_lh (1735)	antennas%antenna_unit%antenna_lh (antenna_lh) (7.9.3.1.60)
name (1734)	antennas%antenna_unit%antenna_lh%name (string) (7.9.3.1.4)
frequency (1734)	antennas%antenna_unit%antenna_lh%frequency (float) (7.9.3.1.2)
power (1734)	antennas%antenna_unit%antenna_lh%power (exp0D) (7.9.3.1.159)
value (1833)	antennas%antenna_unit%antenna_lh%power%value (float) (7.9.3.1.2)
abserror (1833)	antennas%antenna_unit%antenna_lh%power%abserror (float) (7.9.3.1.2)
relerror (1833)	antennas%antenna_unit%antenna_lh%power%relerror (float) (7.9.3.1.2)
n_par (1734)	antennas%antenna_unit%antenna_lh%n_par (float) (7.9.3.1.2)
position (1734)	antennas%antenna_unit%antenna_lh%position (rzphi0D) (7.9.3.1.263)
r (1937)	antennas%antenna_unit%antenna_lh%position%r (float) (7.9.3.1.2)
z (1937)	antennas%antenna_unit%antenna_lh%position%z (float) (7.9.3.1.2)
phi (1937)	antennas%antenna_unit%antenna_lh%position%phi (float) (7.9.3.1.2)
setup (1734)	antennas%antenna_unit%antenna_lh%setup (antennalh_setup) (7.9.3.1.63)
modules (1737)	antennas%antenna_unit%antenna_lh%setup%modules (modules) (7.9.3.1.199)
nma_theta (1873)	antennas%antenna_unit%antenna_lh%setup%modules%nma_theta (integer) (7.9.3.1.3)
nma_phi (1873)	antennas%antenna_unit%antenna_lh%setup%modules%nma_phi (integer) (7.9.3.1.3)
ima_theta (1873)	antennas%antenna_unit%antenna_lh%setup%modules%ima_theta (vecint_type) (7.9.3.1.15)
ima_phi (1873)	antennas%antenna_unit%antenna_lh%setup%modules%ima_phi (vecint_type) (7.9.3.1.15)
sm_theta (1873)	antennas%antenna_unit%antenna_lh%setup%modules%sm_theta (float) (7.9.3.1.2)
amplitude (1873)	antennas%antenna_unit%antenna_lh%setup%modules%amplitude (exp1D) (7.9.3.1.160)
value (1834)	antennas%antenna_unit%antenna_lh%setup%modules%amplitude%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	antennas%antenna_unit%antenna_lh%setup%modules%amplitude%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	antennas%antenna_unit%antenna_lh%setup%modules%amplitude%relerror (vecflt_type) (7.9.3.1.14)
phase (1873)	antennas%antenna_unit%antenna_lh%setup%modules%phase (exp1D) (7.9.3.1.160)
value (1834)	antennas%antenna_unit%antenna_lh%setup%modules%phase%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	antennas%antenna_unit%antenna_lh%setup%modules%phase%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	antennas%antenna_unit%antenna_lh%setup%modules%phase%relerror (vecflt_type) (7.9.3.1.14)

waveguides (1873)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides (waveguides) (7.9.3.1.342)
nwm_theta (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%nwm_theta (integer) (7.9.3.1.3)
nwm_phi (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%nwm_phi (integer) (7.9.3.1.3)
mask (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%mask (vecint_type) (7.9.3.1.15)
npwbm_phi (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%npwbm_phi (integer) (7.9.3.1.3)
npwe_phi (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%npwe_phi (integer) (7.9.3.1.3)
sw_theta (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%sw_theta (float) (7.9.3.1.2)
hw_theta (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%hw_theta (float) (7.9.3.1.2)
bwa (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%bwa (float) (7.9.3.1.2)
biwp (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%biwp (float) (7.9.3.1.2)
bewp (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%bewp (float) (7.9.3.1.2)
e_phi (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%e_phi (vecflt_type) (7.9.3.1.14)
scl (2016)	antennas%antenna_unit%antenna_lh%setup%modules%waveguides%scl (vecflt_type) (7.9.3.1.14)
plasmaedge (1734)	antennas%antenna_unit%antenna_lh%plasmaedge (plasmaedge) (7.9.3.1.223)
npoints (1897)	antennas%antenna_unit%antenna_lh%plasmaedge%npoints (integer) (7.9.3.1.3)
distance (1897)	antennas%antenna_unit%antenna_lh%plasmaedge%distance (vecflt_type) (7.9.3.1.14)
density (1897)	antennas%antenna_unit%antenna_lh%plasmaedge%density (vecflt_type) (7.9.3.1.14)
beam (1734)	antennas%antenna_unit%antenna_lh%beam (rfbeam) (7.9.3.1.257)
spot (1931)	antennas%antenna_unit%antenna_lh%beam%spot (spot) (7.9.3.1.309)
waist (1983)	antennas%antenna_unit%antenna_lh%beam%spot%waist (vecflt_type) (7.9.3.1.14)
angle (1983)	antennas%antenna_unit%antenna_lh%beam%spot%angle (float) (7.9.3.1.2)
phaseellipse (1931)	antennas%antenna_unit%antenna_lh%beam%phaseellipse (phaseellipse) (7.9.3.1.221)
invcurvrad (1895)	antennas%antenna_unit%antenna_lh%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.3.1.14)
angle (1895)	antennas%antenna_unit%antenna_lh%beam%phaseellipse%angle (float) (7.9.3.1.2)
codeparam (1735)	antennas%antenna_unit%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	antennas%antenna_unit%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	antennas%antenna_unit%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	antennas%antenna_unit%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	antennas%antenna_unit%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	antennas%antenna_unit%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1695)	antennas%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	antennas%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	antennas%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	antennas%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	antennas%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	antennas%codeparam%output_flag (integer) (7.9.3.1.3)
time (1695)	antennas%time (float) (7.9.3.1.2)

7.9.3.2.4 coredelta

datainfo (1696)	coredelta%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coredelta%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coredelta%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coredelta%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coredelta%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coredelta%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coredelta%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coredelta%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	coredelta%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coredelta%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coredelta%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coredelta%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coredelta%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coredelta%datainfo%putinfo%putmethod (string) (7.9.3.1.4)

putaccess (1906)	coredelta%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coredelta%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coredelta%datainfo%putinfo%rights (string) (7.9.3.1.4)
composition (1696)	coredelta%composition (composition) (7.9.3.1.91)
amn (1765)	coredelta%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	coredelta%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	coredelta%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	coredelta%composition%imp_flag (vecint_type) (7.9.3.1.15)
rho_tor (1696)	coredelta%rho_tor (vecflt_type) (7.9.3.1.14)
rho_tor_norm (1696)	coredelta%rho_tor_norm (vecflt_type) (7.9.3.1.14)
delta_psi (1696)	coredelta%delta_psi (vecflt_type) (7.9.3.1.14)
delta_te (1696)	coredelta%delta_te (vecflt_type) (7.9.3.1.14)
delta_ti (1696)	coredelta%delta_ti (matflt_type) (7.9.3.1.12)
delta_tz (1696)	coredelta%delta_tz (array3dflt_type) (7.9.3.1.6)
delta_ne (1696)	coredelta%delta_ne (vecflt_type) (7.9.3.1.14)
delta_ni (1696)	coredelta%delta_ni (matflt_type) (7.9.3.1.12)
delta_nz (1696)	coredelta%delta_nz (array3dflt_type) (7.9.3.1.6)
delta_vtor (1696)	coredelta%delta_vtor (matflt_type) (7.9.3.1.12)
codeparam (1696)	coredelta%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coredelta%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coredelta%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coredelta%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coredelta%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coredelta%codeparam%output_flag (integer) (7.9.3.1.3)
time (1696)	coredelta%time (float) (7.9.3.1.2)

7.9.3.2.5 coreimpur

datainfo (1697)	coreimpur%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coreimpur%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coreimpur%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coreimpur%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coreimpur%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coreimpur%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coreimpur%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coreimpur%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	coreimpur%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coreimpur%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coreimpur%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coreimpur%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coreimpur%datainfo%putinfo%rights (string) (7.9.3.1.4)
rho_tor_norm (1697)	coreimpur%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1697)	coreimpur%rho_tor (vecflt_type) (7.9.3.1.14)
source (1697)	coreimpur%source (vecstring_type) (7.9.3.1.16)
flag (1697)	coreimpur%flag (vecint_type) (7.9.3.1.15)
desc_impur (1697)	coreimpur%desc_impur (desc_impur) (7.9.3.1.110)
amn (1784)	coreimpur%desc_impur%amn (vecflt_type) (7.9.3.1.14)
zn (1784)	coreimpur%desc_impur%zn (vecint_type) (7.9.3.1.15)
i_ion (1784)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.3.1.15)
nzimp (1784)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.3.1.15)
zmin (1784)	coreimpur%desc_impur%zmin (matint_type) (7.9.3.1.13)
zmax (1784)	coreimpur%desc_impur%zmax (matint_type) (7.9.3.1.13)
z (1697)	coreimpur%z (array3dflt_type) (7.9.3.1.6)
zsq (1697)	coreimpur%zsq (array3dflt_type) (7.9.3.1.6)
nz (1697)	coreimpur%nz (array3dflt_type) (7.9.3.1.6)
source_term (1697)	coreimpur%source_term (sourceimp) (7.9.3.1.304)
value (1978)	coreimpur%source_term%value (array3dflt_type) (7.9.3.1.6)

integral (1978)	coreimpur%source_term%integral (array3dflt_type) (7.9.3.1.6)
source (1978)	coreimpur%source_term%source (vecstring_type) (7.9.3.1.16)
boundary (1697)	coreimpur%boundary (boundaryimp) (7.9.3.1.71)
value (1745)	coreimpur%boundary%value (array3dflt_type) (7.9.3.1.6)
source (1745)	coreimpur%boundary%source (vecstring_type) (7.9.3.1.16)
type (1745)	coreimpur%boundary%type (matint_type) (7.9.3.1.13)
rho (1745)	coreimpur%boundary%rho (matflt_type) (7.9.3.1.12)
codeparam (1745)	coreimpur%boundary%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreimpur%boundary%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreimpur%boundary%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreimpur%boundary%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreimpur%boundary%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreimpur%boundary%codeparam%output_flag (integer) (7.9.3.1.3)
transp_coef (1697)	coreimpur%transp_coef (coretransimp) (7.9.3.1.104)
diff (1778)	coreimpur%transp_coef%diff (array3dflt_type) (7.9.3.1.6)
vconv (1778)	coreimpur%transp_coef%vconv (array3dflt_type) (7.9.3.1.6)
source (1778)	coreimpur%transp_coef%source (vecstring_type) (7.9.3.1.16)
flux (1697)	coreimpur%flux (fluximp) (7.9.3.1.166)
flux_dv (1840)	coreimpur%flux%flux_dv (array3dflt_type) (7.9.3.1.6)
flux_interp (1840)	coreimpur%flux%flux_interp (array3dflt_type) (7.9.3.1.6)
time_deriv (1697)	coreimpur%time_deriv (array3dflt_type) (7.9.3.1.6)
atomic_data (1697)	coreimpur%atomic_data (vecstring_type) (7.9.3.1.16)
time (1697)	coreimpur%time (float) (7.9.3.1.2)
codeparam (1697)	coreimpur%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreimpur%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreimpur%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreimpur%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreimpur%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreimpur%codeparam%output_flag (integer) (7.9.3.1.3)

7.9.3.2.6 coreneutrals

datainfo (1698)	coreneutrals%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coreneutrals%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coreneutrals%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coreneutrals%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coreneutrals%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coreneutrals%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coreneutrals%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coreneutrals%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	coreneutrals%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coreneutrals%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coreneutrals%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coreneutrals%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coreneutrals%datainfo%putinfo%rights (string) (7.9.3.1.4)
rho_tor (1698)	coreneutrals%rho_tor (vecflt_type) (7.9.3.1.14)
rho_tor_norm (1698)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.3.1.14)
composition (1698)	coreneutrals%composition (composition_neutrals) (7.9.3.1.92)
atomlist (1766)	coreneutrals%composition%atomlist (atomlist) (7.9.3.1.64)
amn (1738)	coreneutrals%composition%atomlist%amn (vecflt_type) (7.9.3.1.14)
zn (1738)	coreneutrals%composition%atomlist%zn (vecflt_type) (7.9.3.1.14)
neutrallist (1766)	coreneutrals%composition%neutrallist (neutrallist) (7.9.3.1.202)
ncomp (1876)	coreneutrals%composition%neutrallist%ncomp (vecint_type) (7.9.3.1.15)
tatm (1876)	coreneutrals%composition%neutrallist%tatm (matint_type) (7.9.3.1.13)
multatm (1876)	coreneutrals%composition%neutrallist%multatm (matint_type) (7.9.3.1.13)
typelist (1766)	coreneutrals%composition%typelist (typelist) (7.9.3.1.341)
ntype (2015)	coreneutrals%composition%typelist%ntype (vecint_type) (7.9.3.1.15)

type (2015)	coreneutrals%composition%typelist%type (matint_type) (7.9.3.1.13)
profiles (1698)	coreneutrals%profiles (profiles_neutrals) (7.9.3.1.230)
n0 (1904)	coreneutrals%profiles%n0 (corefieldneutral) (7.9.3.1.97)
value (1771)	coreneutrals%profiles%n0%value (array3dflt_type) (7.9.3.1.6)
flux (1771)	coreneutrals%profiles%n0%flux (array3dflt_type) (7.9.3.1.6)
boundary (1771)	coreneutrals%profiles%n0%boundary (boundary_neutrals) (7.9.3.1.69)
value (1743)	coreneutrals%profiles%n0%boundary%value (array3dflt_type) (7.9.3.1.6)
type (1743)	coreneutrals%profiles%n0%boundary%type (matint_type) (7.9.3.1.13)
rho_tor (1743)	coreneutrals%profiles%n0%boundary%rho_tor (matflt_type) (7.9.3.1.12)
t0 (1904)	coreneutrals%profiles%t0 (corefieldneutrale) (7.9.3.1.98)
value (1772)	coreneutrals%profiles%t0%value (array3dflt_type) (7.9.3.1.6)
flux (1772)	coreneutrals%profiles%t0%flux (array3dflt_type) (7.9.3.1.6)
boundary (1772)	coreneutrals%profiles%t0%boundary (boundary_neutrals) (7.9.3.1.69)
value (1743)	coreneutrals%profiles%t0%boundary%value (array3dflt_type) (7.9.3.1.6)
type (1743)	coreneutrals%profiles%t0%boundary%type (matint_type) (7.9.3.1.13)
rho_tor (1743)	coreneutrals%profiles%t0%boundary%rho_tor (matflt_type) (7.9.3.1.12)
v0 (1904)	coreneutrals%profiles%v0 (corefieldneutralv0) (7.9.3.1.100)
toroidal (1774)	coreneutrals%profiles%v0%toroidal (corefieldneutralv) (7.9.3.1.99)
value (1773)	coreneutrals%profiles%v0%toroidal%value (array3dflt_type) (7.9.3.1.6)
boundary (1773)	coreneutrals%profiles%v0%toroidal%boundary (boundary_neutrals) (7.9.3.1.69)
value (1743)	coreneutrals%profiles%v0%toroidal%boundary%value (array3dflt_type) (7.9.3.1.6)
type (1743)	coreneutrals%profiles%v0%toroidal%boundary%type (matint_type) (7.9.3.1.13)
rho_tor (1743)	coreneutrals%profiles%v0%toroidal%boundary%rho_tor (matflt_type) (7.9.3.1.12)
poloidal (1774)	coreneutrals%profiles%v0%poloidal (corefieldneutralv) (7.9.3.1.99)
value (1773)	coreneutrals%profiles%v0%poloidal%value (array3dflt_type) (7.9.3.1.6)
boundary (1773)	coreneutrals%profiles%v0%poloidal%boundary (boundary_neutrals) (7.9.3.1.69)
value (1743)	coreneutrals%profiles%v0%poloidal%boundary%value (array3dflt_type) (7.9.3.1.6)
type (1743)	coreneutrals%profiles%v0%poloidal%boundary%type (matint_type) (7.9.3.1.13)
rho_tor (1743)	coreneutrals%profiles%v0%poloidal%boundary%rho_tor (matflt_type) (7.9.3.1.12)
radial (1774)	coreneutrals%profiles%v0%radial (corefieldneutralv) (7.9.3.1.99)
value (1773)	coreneutrals%profiles%v0%radial%value (array3dflt_type) (7.9.3.1.6)
boundary (1773)	coreneutrals%profiles%v0%radial%boundary (boundary_neutrals) (7.9.3.1.69)
value (1743)	coreneutrals%profiles%v0%radial%boundary%value (array3dflt_type) (7.9.3.1.6)
type (1743)	coreneutrals%profiles%v0%radial%boundary%type (matint_type) (7.9.3.1.13)
rho_tor (1743)	coreneutrals%profiles%v0%radial%boundary%rho_tor (matflt_type) (7.9.3.1.12)
prad0 (1904)	coreneutrals%profiles%prad0 (matflt_type) (7.9.3.1.12)
coefficients (1698)	coreneutrals%coefficients (coefficients_neutrals) (7.9.3.1.76)
recycling (1750)	coreneutrals%coefficients%recycling (recycling_neutrals) (7.9.3.1.234)
particles (1908)	coreneutrals%coefficients%recycling%particles (matflt_type) (7.9.3.1.12)
energy (1908)	coreneutrals%coefficients%recycling%energy (matflt_type) (7.9.3.1.12)
sputtering (1750)	coreneutrals%coefficients%sputtering (sputtering_neutrals) (7.9.3.1.310)
physical (1984)	coreneutrals%coefficients%sputtering%physical (matflt_type) (7.9.3.1.12)
chemical (1984)	coreneutrals%coefficients%sputtering%chemical (matflt_type) (7.9.3.1.12)
codeparam (1698)	coreneutrals%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreneutrals%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreneutrals%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreneutrals%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreneutrals%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreneutrals%codeparam%output_flag (integer) (7.9.3.1.3)
time (1698)	coreneutrals%time (float) (7.9.3.1.2)

7.9.3.2.7 coreprof

datainfo (1699)	coreprof%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coreprof%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coreprof%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coreprof%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coreprof%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coreprof%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coreprof%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coreprof%datainfo%whatref%user (string) (7.9.3.1.4)

machine (2024)	coreprof%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coreprof%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coreprof%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coreprof%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coreprof%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coreprof%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	coreprof%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coreprof%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coreprof%datainfo%putinfo%rights (string) (7.9.3.1.4)
rho_tor_norm (1699)	coreprof%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1699)	coreprof%rho_tor (vecflt_type) (7.9.3.1.14)
drho_dt (1699)	coreprof%drho_dt (vecflt_type) (7.9.3.1.14)
toroid_field (1699)	coreprof%toroid_field (toroid_field) (7.9.3.1.322)
b0 (1996)	coreprof%toroid_field%b0 (float) (7.9.3.1.2)
b0prime (1996)	coreprof%toroid_field%b0prime (float) (7.9.3.1.2)
r0 (1996)	coreprof%toroid_field%r0 (float) (7.9.3.1.2)
time (1996)	coreprof%toroid_field%time (float) (7.9.3.1.2)
composition (1699)	coreprof%composition (composition) (7.9.3.1.91)
amn (1765)	coreprof%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	coreprof%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	coreprof%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	coreprof%composition%imp_flag (vecint_type) (7.9.3.1.15)
psi (1699)	coreprof%psi (psi) (7.9.3.1.231)
value (1905)	coreprof%psi%value (vecflt_type) (7.9.3.1.14)
derivative (1905)	coreprof%psi%derivative (vecflt_type) (7.9.3.1.14)
source (1905)	coreprof%psi%source (string) (7.9.3.1.4)
flag (1905)	coreprof%psi%flag (integer) (7.9.3.1.3)
boundary (1905)	coreprof%psi%boundary (boundary) (7.9.3.1.68)
value (1742)	coreprof%psi%boundary%value (vecflt_type) (7.9.3.1.14)
source (1742)	coreprof%psi%boundary%source (string) (7.9.3.1.4)
type (1742)	coreprof%psi%boundary%type (integer) (7.9.3.1.3)
rho (1742)	coreprof%psi%boundary%rho (float) (7.9.3.1.2)
codeparam (1742)	coreprof%psi%boundary%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%psi%boundary%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.3.1.3)
jni (1905)	coreprof%psi%jni (jni) (7.9.3.1.176)
value (1850)	coreprof%psi%jni%value (vecflt_type) (7.9.3.1.14)
integral (1850)	coreprof%psi%jni%integral (vecflt_type) (7.9.3.1.14)
source (1850)	coreprof%psi%jni%source (string) (7.9.3.1.4)
sigma_par (1905)	coreprof%psi%sigma_par (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%psi%sigma_par%source (string) (7.9.3.1.4)
codeparam (1905)	coreprof%psi%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%psi%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%psi%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%psi%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%psi%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%psi%codeparam%output_flag (integer) (7.9.3.1.3)
te (1699)	coreprof%te (corefield) (7.9.3.1.95)
value (1769)	coreprof%te%value (vecflt_type) (7.9.3.1.14)
derivative (1769)	coreprof%te%derivative (vecflt_type) (7.9.3.1.14)
source (1769)	coreprof%te%source (string) (7.9.3.1.4)
flag (1769)	coreprof%te%flag (integer) (7.9.3.1.3)
boundary (1769)	coreprof%te%boundary (boundaryel) (7.9.3.1.70)
value (1744)	coreprof%te%boundary%value (vecflt_type) (7.9.3.1.14)
source (1744)	coreprof%te%boundary%source (string) (7.9.3.1.4)
type (1744)	coreprof%te%boundary%type (integer) (7.9.3.1.3)
rho_tor (1744)	coreprof%te%boundary%rho_tor (float) (7.9.3.1.2)

source_term (1769)	coreprof%te%source_term (sourceel) (7.9.3.1.303)
value (1977)	coreprof%te%source_term%value (vecflt_type) (7.9.3.1.14)
integral (1977)	coreprof%te%source_term%integral (vecflt_type) (7.9.3.1.14)
source (1977)	coreprof%te%source_term%source (string) (7.9.3.1.4)
transp_coef (1769)	coreprof%te%transp_coef (coretransel) (7.9.3.1.103)
diff (1777)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.3.1.14)
vconv (1777)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.3.1.14)
source (1777)	coreprof%te%transp_coef%source (string) (7.9.3.1.4)
flux (1769)	coreprof%te%flux (fluxel) (7.9.3.1.165)
flux_dv (1839)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.3.1.14)
flux_interp (1839)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.3.1.14)
time_deriv (1769)	coreprof%te%time_deriv (vecflt_type) (7.9.3.1.14)
codeparam (1769)	coreprof%te%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%te%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%te%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%te%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%te%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%te%codeparam%output_flag (integer) (7.9.3.1.3)
ti (1699)	coreprof%ti (corefieldion) (7.9.3.1.96)
value (1770)	coreprof%ti%value (matflt_type) (7.9.3.1.12)
derivative (1770)	coreprof%ti%derivative (matflt_type) (7.9.3.1.12)
source (1770)	coreprof%ti%source (vecstring_type) (7.9.3.1.16)
flag (1770)	coreprof%ti%flag (vecint_type) (7.9.3.1.15)
boundary (1770)	coreprof%ti%boundary (boundaryion) (7.9.3.1.72)
value (1746)	coreprof%ti%boundary%value (matflt_type) (7.9.3.1.12)
source (1746)	coreprof%ti%boundary%source (vecstring_type) (7.9.3.1.16)
type (1746)	coreprof%ti%boundary%type (vecint_type) (7.9.3.1.15)
rho_tor (1746)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.3.1.14)
source_term (1770)	coreprof%ti%source_term (sourceion) (7.9.3.1.305)
value (1979)	coreprof%ti%source_term%value (matflt_type) (7.9.3.1.12)
integral (1979)	coreprof%ti%source_term%integral (matflt_type) (7.9.3.1.12)
source (1979)	coreprof%ti%source_term%source (vecstring_type) (7.9.3.1.16)
transp_coef (1770)	coreprof%ti%transp_coef (coretransion) (7.9.3.1.105)
diff (1779)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.3.1.12)
vconv (1779)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.3.1.12)
source (1779)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.3.1.16)
flux (1770)	coreprof%ti%flux (fluxion) (7.9.3.1.167)
flux_dv (1841)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.3.1.12)
flux_interp (1841)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.3.1.12)
time_deriv (1770)	coreprof%ti%time_deriv (matflt_type) (7.9.3.1.12)
codeparam (1770)	coreprof%ti%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%ti%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%ti%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%ti%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%ti%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%ti%codeparam%output_flag (integer) (7.9.3.1.3)
ne (1699)	coreprof%ne (corefield) (7.9.3.1.95)
value (1769)	coreprof%ne%value (vecflt_type) (7.9.3.1.14)
derivative (1769)	coreprof%ne%derivative (vecflt_type) (7.9.3.1.14)
source (1769)	coreprof%ne%source (string) (7.9.3.1.4)
flag (1769)	coreprof%ne%flag (integer) (7.9.3.1.3)
boundary (1769)	coreprof%ne%boundary (boundaryel) (7.9.3.1.70)
value (1744)	coreprof%ne%boundary%value (vecflt_type) (7.9.3.1.14)
source (1744)	coreprof%ne%boundary%source (string) (7.9.3.1.4)
type (1744)	coreprof%ne%boundary%type (integer) (7.9.3.1.3)
rho_tor (1744)	coreprof%ne%boundary%rho_tor (float) (7.9.3.1.2)
source_term (1769)	coreprof%ne%source_term (sourceel) (7.9.3.1.303)
value (1977)	coreprof%ne%source_term%value (vecflt_type) (7.9.3.1.14)
integral (1977)	coreprof%ne%source_term%integral (vecflt_type) (7.9.3.1.14)
source (1977)	coreprof%ne%source_term%source (string) (7.9.3.1.4)
transp_coef (1769)	coreprof%ne%transp_coef (coretransel) (7.9.3.1.103)

diff (1777)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.3.1.14)
vconv (1777)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.3.1.14)
source (1777)	coreprof%ne%transp_coef%source (string) (7.9.3.1.4)
flux (1769)	coreprof%ne%flux (fluxel) (7.9.3.1.165)
flux_dv (1839)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.3.1.14)
flux_interp (1839)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.3.1.14)
time_deriv (1769)	coreprof%ne%time_deriv (vecflt_type) (7.9.3.1.14)
codeparam (1769)	coreprof%ne%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%ne%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%ne%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%ne%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%ne%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%ne%codeparam%output_flag (integer) (7.9.3.1.3)
ni (1699)	coreprof%ni (corefieldion) (7.9.3.1.96)
value (1770)	coreprof%ni%value (matflt_type) (7.9.3.1.12)
derivative (1770)	coreprof%ni%derivative (matflt_type) (7.9.3.1.12)
source (1770)	coreprof%ni%source (vecstring_type) (7.9.3.1.16)
flag (1770)	coreprof%ni%flag (vecint_type) (7.9.3.1.15)
boundary (1770)	coreprof%ni%boundary (boundaryion) (7.9.3.1.72)
value (1746)	coreprof%ni%boundary%value (matflt_type) (7.9.3.1.12)
source (1746)	coreprof%ni%boundary%source (vecstring_type) (7.9.3.1.16)
type (1746)	coreprof%ni%boundary%type (vecint_type) (7.9.3.1.15)
rho_tor (1746)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.3.1.14)
source_term (1770)	coreprof%ni%source_term (sourceion) (7.9.3.1.305)
value (1979)	coreprof%ni%source_term%value (matflt_type) (7.9.3.1.12)
integral (1979)	coreprof%ni%source_term%integral (matflt_type) (7.9.3.1.12)
source (1979)	coreprof%ni%source_term%source (vecstring_type) (7.9.3.1.16)
transp_coef (1770)	coreprof%ni%transp_coef (coretransion) (7.9.3.1.105)
diff (1779)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.3.1.12)
vconv (1779)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.3.1.12)
source (1779)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.3.1.16)
flux (1770)	coreprof%ni%flux (fluxion) (7.9.3.1.167)
flux_dv (1841)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.3.1.12)
flux_interp (1841)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.3.1.12)
time_deriv (1770)	coreprof%ni%time_deriv (matflt_type) (7.9.3.1.12)
codeparam (1770)	coreprof%ni%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%ni%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%ni%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%ni%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%ni%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%ni%codeparam%output_flag (integer) (7.9.3.1.3)
vtor (1699)	coreprof%vtor (corefieldion) (7.9.3.1.96)
value (1770)	coreprof%vtor%value (matflt_type) (7.9.3.1.12)
derivative (1770)	coreprof%vtor%derivative (matflt_type) (7.9.3.1.12)
source (1770)	coreprof%vtor%source (vecstring_type) (7.9.3.1.16)
flag (1770)	coreprof%vtor%flag (vecint_type) (7.9.3.1.15)
boundary (1770)	coreprof%vtor%boundary (boundaryion) (7.9.3.1.72)
value (1746)	coreprof%vtor%boundary%value (matflt_type) (7.9.3.1.12)
source (1746)	coreprof%vtor%boundary%source (vecstring_type) (7.9.3.1.16)
type (1746)	coreprof%vtor%boundary%type (vecint_type) (7.9.3.1.15)
rho_tor (1746)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.3.1.14)
source_term (1770)	coreprof%vtor%source_term (sourceion) (7.9.3.1.305)
value (1979)	coreprof%vtor%source_term%value (matflt_type) (7.9.3.1.12)
integral (1979)	coreprof%vtor%source_term%integral (matflt_type) (7.9.3.1.12)
source (1979)	coreprof%vtor%source_term%source (vecstring_type) (7.9.3.1.16)
transp_coef (1770)	coreprof%vtor%transp_coef (coretransion) (7.9.3.1.105)
diff (1779)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.3.1.12)
vconv (1779)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.3.1.12)
source (1779)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.3.1.16)
flux (1770)	coreprof%vtor%flux (fluxion) (7.9.3.1.167)
flux_dv (1841)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.3.1.12)

flux_interp (1841)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.3.1.12)
time_deriv (1770)	coreprof%vtor%time_deriv (matflt_type) (7.9.3.1.12)
codeparam (1770)	coreprof%vtor%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%vtor%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%vtor%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%vtor%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%vtor%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%vtor%codeparam%output_flag (integer) (7.9.3.1.3)
profiles1d (1699)	coreprof%profiles1d (profiles1d) (7.9.3.1.227)
pe (1901)	coreprof%profiles1d%pe (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%pe%source (string) (7.9.3.1.4)
pi (1901)	coreprof%profiles1d%pi (coreprofion) (7.9.3.1.102)
value (1776)	coreprof%profiles1d%pi%value (matflt_type) (7.9.3.1.12)
source (1776)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.3.1.16)
pr_th (1901)	coreprof%profiles1d%pr_th (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%pr_th%source (string) (7.9.3.1.4)
pr_perp (1901)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%pr_perp%source (string) (7.9.3.1.4)
pr_parallel (1901)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%pr_parallel%source (string) (7.9.3.1.4)
jtot (1901)	coreprof%profiles1d%jtot (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%jtot%source (string) (7.9.3.1.4)
jni (1901)	coreprof%profiles1d%jni (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%jni%source (string) (7.9.3.1.4)
joh (1901)	coreprof%profiles1d%joh (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%joh%source (string) (7.9.3.1.4)
vloop (1901)	coreprof%profiles1d%vloop (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%vloop%source (string) (7.9.3.1.4)
sigmapar (1901)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%sigmapar%source (string) (7.9.3.1.4)
qoh (1901)	coreprof%profiles1d%qoh (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%qoh%source (string) (7.9.3.1.4)
eparallel (1901)	coreprof%profiles1d%eparallel (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%eparallel%source (string) (7.9.3.1.4)
e_b (1901)	coreprof%profiles1d%e_b (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%e_b%source (string) (7.9.3.1.4)
q (1901)	coreprof%profiles1d%q (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%q%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%q%source (string) (7.9.3.1.4)
shear (1901)	coreprof%profiles1d%shear (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%shear%source (string) (7.9.3.1.4)
ns (1901)	coreprof%profiles1d%ns (coreprofion) (7.9.3.1.102)
value (1776)	coreprof%profiles1d%ns%value (matflt_type) (7.9.3.1.12)
source (1776)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.3.1.16)
mtor (1901)	coreprof%profiles1d%mtor (coreprofion) (7.9.3.1.102)
value (1776)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.3.1.12)
source (1776)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.3.1.16)
wtor (1901)	coreprof%profiles1d%wtor (coreprofion) (7.9.3.1.102)

value (1776)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.3.1.12)
source (1776)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.3.1.16)
zeff (1901)	coreprof%profiles1d%zeff (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%zeff%source (string) (7.9.3.1.4)
bpol (1901)	coreprof%profiles1d%bpol (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%bpol%source (string) (7.9.3.1.4)
dpsidt (1901)	coreprof%profiles1d%dpsidt (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%dpsidt%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%dpsidt%source (string) (7.9.3.1.4)
dpsidt_phi (1901)	coreprof%profiles1d%dpsidt_phi (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%dpsidt_phi%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%dpsidt_phi%source (string) (7.9.3.1.4)
dvprimedt (1901)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.3.1.101)
value (1775)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.3.1.14)
source (1775)	coreprof%profiles1d%dvprimedt%source (string) (7.9.3.1.4)
globalparam (1699)	coreprof%globalparam (globalparam) (7.9.3.1.171)
current_tot (1845)	coreprof%globalparam%current_tot (float) (7.9.3.1.2)
current_bnd (1845)	coreprof%globalparam%current_bnd (float) (7.9.3.1.2)
current_ni (1845)	coreprof%globalparam%current_ni (float) (7.9.3.1.2)
vloop (1845)	coreprof%globalparam%vloop (float) (7.9.3.1.2)
li (1845)	coreprof%globalparam%li (float) (7.9.3.1.2)
beta_tor (1845)	coreprof%globalparam%beta_tor (float) (7.9.3.1.2)
beta_normal (1845)	coreprof%globalparam%beta_normal (float) (7.9.3.1.2)
beta_pol (1845)	coreprof%globalparam%beta_pol (float) (7.9.3.1.2)
w_dia (1845)	coreprof%globalparam%w_dia (float) (7.9.3.1.2)
codeparam (1699)	coreprof%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coreprof%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coreprof%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coreprof%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coreprof%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coreprof%codeparam%output_flag (integer) (7.9.3.1.3)
time (1699)	coreprof%time (float) (7.9.3.1.2)

7.9.3.2.8 coresource

datainfo (1700)	coresource%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coresource%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coresource%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coresource%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coresource%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coresource%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coresource%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coresource%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	coresource%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coresource%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coresource%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coresource%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coresource%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coresource%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	coresource%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coresource%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coresource%datainfo%putinfo%rights (string) (7.9.3.1.4)
rho_tor (1700)	coresource%rho_tor (vecflt_type) (7.9.3.1.14)
rho_tor_norm (1700)	coresource%rho_tor_norm (vecflt_type) (7.9.3.1.14)
composition (1700)	coresource%composition (composition) (7.9.3.1.91)
amn (1765)	coresource%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	coresource%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	coresource%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	coresource%composition%imp_flag (vecint_type) (7.9.3.1.15)

toroid_field (1700)	coresource%toroid_field (b0r0) (7.9.3.1.65)
r0 (1739)	coresource%toroid_field%r0 (float) (7.9.3.1.2)
b0 (1739)	coresource%toroid_field%b0 (float) (7.9.3.1.2)
j (1700)	coresource%j (vecflt_type) (7.9.3.1.14)
sigma (1700)	coresource%sigma (vecflt_type) (7.9.3.1.14)
si (1700)	coresource%si (source_ion) (7.9.3.1.301)
exp (1975)	coresource%si%exp (matflt_type) (7.9.3.1.12)
imp (1975)	coresource%si%imp (matflt_type) (7.9.3.1.12)
se (1700)	coresource%se (source_el) (7.9.3.1.298)
exp (1972)	coresource%se%exp (vecflt_type) (7.9.3.1.14)
imp (1972)	coresource%se%imp (vecflt_type) (7.9.3.1.14)
sz (1700)	coresource%sz (source_imp) (7.9.3.1.300)
exp (1974)	coresource%sz%exp (array3dflt_type) (7.9.3.1.6)
imp (1974)	coresource%sz%imp (array3dflt_type) (7.9.3.1.6)
qi (1700)	coresource%qi (source_ion) (7.9.3.1.301)
exp (1975)	coresource%qi%exp (matflt_type) (7.9.3.1.12)
imp (1975)	coresource%qi%imp (matflt_type) (7.9.3.1.12)
qe (1700)	coresource%qe (source_el) (7.9.3.1.298)
exp (1972)	coresource%qe%exp (vecflt_type) (7.9.3.1.14)
imp (1972)	coresource%qe%imp (vecflt_type) (7.9.3.1.14)
qz (1700)	coresource%qz (source_imp) (7.9.3.1.300)
exp (1974)	coresource%qz%exp (array3dflt_type) (7.9.3.1.6)
imp (1974)	coresource%qz%imp (array3dflt_type) (7.9.3.1.6)
ui (1700)	coresource%ui (source_ion) (7.9.3.1.301)
exp (1975)	coresource%ui%exp (matflt_type) (7.9.3.1.12)
imp (1975)	coresource%ui%imp (matflt_type) (7.9.3.1.12)
codeparam (1700)	coresource%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coresource%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coresource%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coresource%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coresource%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coresource%codeparam%output_flag (integer) (7.9.3.1.3)
time (1700)	coresource%time (float) (7.9.3.1.2)

7.9.3.2.9 coretransp

datainfo (1701)	coretransp%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	coretransp%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	coretransp%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	coretransp%datainfo%source (string) (7.9.3.1.4)
comment (1783)	coretransp%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	coretransp%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	coretransp%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	coretransp%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	coretransp%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	coretransp%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	coretransp%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	coretransp%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	coretransp%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	coretransp%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	coretransp%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	coretransp%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	coretransp%datainfo%putinfo%rights (string) (7.9.3.1.4)
composition (1701)	coretransp%composition (composition) (7.9.3.1.91)
amn (1765)	coretransp%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	coretransp%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	coretransp%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	coretransp%composition%imp_flag (vecint_type) (7.9.3.1.15)
rho_tor_norm (1701)	coretransp%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1701)	coretransp%rho_tor (vecflt_type) (7.9.3.1.14)
sigma (1701)	coretransp%sigma (vecflt_type) (7.9.3.1.14)

ni_transp (1701)	coretransp%ni_transp (ni_transp) (7.9.3.1.203)
diff_eff (1877)	coretransp%ni_transp%diff_eff (array3dflt_type) (7.9.3.1.6)
vconv_eff (1877)	coretransp%ni_transp%vconv_eff (array3dflt_type) (7.9.3.1.6)
flux (1877)	coretransp%ni_transp%flux (matflt_type) (7.9.3.1.12)
off_diagonal (1877)	coretransp%ni_transp%off_diagonal (offdiagion) (7.9.3.1.206)
d_ni (1880)	coretransp%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.3.1.6)
d_ti (1880)	coretransp%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.3.1.6)
d_ne (1880)	coretransp%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.3.1.12)
d_te (1880)	coretransp%ni_transp%off_diagonal%d_te (matflt_type) (7.9.3.1.12)
d_epar (1880)	coretransp%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.3.1.12)
d_mtor (1880)	coretransp%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.3.1.12)
flag (1877)	coretransp%ni_transp%flag (integer) (7.9.3.1.3)
ne_transp (1701)	coretransp%ne_transp (ne_transp) (7.9.3.1.201)
diff_eff (1875)	coretransp%ne_transp%diff_eff (matflt_type) (7.9.3.1.12)
vconv_eff (1875)	coretransp%ne_transp%vconv_eff (matflt_type) (7.9.3.1.12)
flux (1875)	coretransp%ne_transp%flux (vecflt_type) (7.9.3.1.14)
off_diagonal (1875)	coretransp%ne_transp%off_diagonal (offdiagel) (7.9.3.1.205)
d_ni (1879)	coretransp%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.3.1.12)
d_ti (1879)	coretransp%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.3.1.12)
d_ne (1879)	coretransp%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.3.1.14)
d_te (1879)	coretransp%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.3.1.14)
d_epar (1879)	coretransp%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.3.1.14)
d_mtor (1879)	coretransp%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.3.1.14)
flag (1875)	coretransp%ne_transp%flag (integer) (7.9.3.1.3)
nz_transp (1701)	coretransp%nz_transp (transcoefimp) (7.9.3.1.324)
diff_eff (1998)	coretransp%nz_transp%diff_eff (array3dflt_type) (7.9.3.1.6)
vconv_eff (1998)	coretransp%nz_transp%vconv_eff (array3dflt_type) (7.9.3.1.6)
exchange (1998)	coretransp%nz_transp%exchange (array3dflt_type) (7.9.3.1.6)
flux (1998)	coretransp%nz_transp%flux (array3dflt_type) (7.9.3.1.6)
flag (1998)	coretransp%nz_transp%flag (integer) (7.9.3.1.3)
ti_transp (1701)	coretransp%ti_transp (transcoefion) (7.9.3.1.325)
diff_eff (1999)	coretransp%ti_transp%diff_eff (matflt_type) (7.9.3.1.12)
vconv_eff (1999)	coretransp%ti_transp%vconv_eff (matflt_type) (7.9.3.1.12)
exchange (1999)	coretransp%ti_transp%exchange (matflt_type) (7.9.3.1.12)
qgi (1999)	coretransp%ti_transp%qgi (matflt_type) (7.9.3.1.12)
flux (1999)	coretransp%ti_transp%flux (matflt_type) (7.9.3.1.12)
off_diagonal (1999)	coretransp%ti_transp%off_diagonal (offdiagion) (7.9.3.1.206)
d_ni (1880)	coretransp%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.3.1.6)
d_ti (1880)	coretransp%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.3.1.6)
d_ne (1880)	coretransp%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.3.1.12)
d_te (1880)	coretransp%ti_transp%off_diagonal%d_te (matflt_type) (7.9.3.1.12)
d_epar (1880)	coretransp%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.3.1.12)
d_mtor (1880)	coretransp%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.3.1.12)
flag (1999)	coretransp%ti_transp%flag (integer) (7.9.3.1.3)
te_transp (1701)	coretransp%te_transp (transcoefel) (7.9.3.1.323)
diff_eff (1997)	coretransp%te_transp%diff_eff (vecflt_type) (7.9.3.1.14)
vconv_eff (1997)	coretransp%te_transp%vconv_eff (vecflt_type) (7.9.3.1.14)
flux (1997)	coretransp%te_transp%flux (vecflt_type) (7.9.3.1.14)
off_diagonal (1997)	coretransp%te_transp%off_diagonal (offdiagel) (7.9.3.1.205)
d_ni (1879)	coretransp%te_transp%off_diagonal%d_ni (matflt_type) (7.9.3.1.12)
d_ti (1879)	coretransp%te_transp%off_diagonal%d_ti (matflt_type) (7.9.3.1.12)
d_ne (1879)	coretransp%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.3.1.14)
d_te (1879)	coretransp%te_transp%off_diagonal%d_te (vecflt_type) (7.9.3.1.14)
d_epar (1879)	coretransp%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.3.1.14)
d_mtor (1879)	coretransp%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.3.1.14)
flag (1997)	coretransp%te_transp%flag (integer) (7.9.3.1.3)
tz_transp (1701)	coretransp%tz_transp (transcoefimp) (7.9.3.1.324)
diff_eff (1998)	coretransp%tz_transp%diff_eff (array3dflt_type) (7.9.3.1.6)
vconv_eff (1998)	coretransp%tz_transp%vconv_eff (array3dflt_type) (7.9.3.1.6)
exchange (1998)	coretransp%tz_transp%exchange (array3dflt_type) (7.9.3.1.6)
flux (1998)	coretransp%tz_transp%flux (array3dflt_type) (7.9.3.1.6)

flag (1998)	coretransp%tz_transp%flag (integer) (7.9.3.1.3)
vtor_transp (1701)	coretransp%vtor_transp (transcoefvtor) (7.9.3.1.326)
diff_eff (2000)	coretransp%vtor_transp%diff_eff (matflt_type) (7.9.3.1.12)
vconv_eff (2000)	coretransp%vtor_transp%vconv_eff (matflt_type) (7.9.3.1.12)
flux (2000)	coretransp%vtor_transp%flux (matflt_type) (7.9.3.1.12)
off_diagonal (2000)	coretransp%vtor_transp%off_diagonal (offdiagion) (7.9.3.1.206)
d_ni (1880)	coretransp%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.3.1.6)
d_ti (1880)	coretransp%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.3.1.6)
d_ne (1880)	coretransp%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.3.1.12)
d_te (1880)	coretransp%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.3.1.12)
d_epar (1880)	coretransp%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.3.1.12)
d_mtor (1880)	coretransp%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.3.1.12)
flag (2000)	coretransp%vtor_transp%flag (integer) (7.9.3.1.3)
codeparam (1701)	coretransp%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	coretransp%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	coretransp%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	coretransp%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	coretransp%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	coretransp%codeparam%output_flag (integer) (7.9.3.1.3)
time (1701)	coretransp%time (float) (7.9.3.1.2)

7.9.3.2.10 cxdiag

datainfo (1702)	cxdiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	cxdiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	cxdiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	cxdiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	cxdiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	cxdiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	cxdiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	cxdiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	cxdiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	cxdiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	cxdiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	cxdiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	cxdiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
setup (1702)	cxdiag%setup (cxsetup) (7.9.3.1.108)
position (1782)	cxdiag%setup%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	cxdiag%setup%position%r (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%setup%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	cxdiag%setup%position%z (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%setup%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	cxdiag%setup%position%phi (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1702)	cxdiag%measure (cxmeasure) (7.9.3.1.107)
ti (1781)	cxdiag%measure%ti (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%measure%ti%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.3.1.14)
vtor (1781)	cxdiag%measure%vtor (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%measure%vtor%value (vecflt_type) (7.9.3.1.14)

abserror (1834)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.3.1.14)
vpol (1781)	cxdiag%measure%vpol (exp1D) (7.9.3.1.160)
value (1834)	cxdiag%measure%vpol%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.3.1.14)
time (1702)	cxdiag%time (float) (7.9.3.1.2)

7.9.3.2.11 distribution

datainfo (1703)	distribution%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	distribution%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	distribution%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	distribution%datainfo%source (string) (7.9.3.1.4)
comment (1783)	distribution%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	distribution%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	distribution%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	distribution%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	distribution%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	distribution%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	distribution%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	distribution%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	distribution%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	distribution%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	distribution%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	distribution%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	distribution%datainfo%putinfo%rights (string) (7.9.3.1.4)
composition (1703)	distribution%composition (composition) (7.9.3.1.91)
amn (1765)	distribution%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	distribution%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	distribution%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	distribution%composition%imp_flag (vecint_type) (7.9.3.1.15)
distri_vec (1703)	distribution%distri_vec (distri_vec) (7.9.3.1.136)
calc_spec (1810)	distribution%distri_vec%calc_spec (integer) (7.9.3.1.3)
nucl_reac (1810)	distribution%distri_vec%nucl_reac (dist_nucl_reac) (7.9.3.1.121)
point_reac (1795)	distribution%distri_vec%nucl_reac%point_reac (vecint_type) (7.9.3.1.15)
id_reac (1795)	distribution%distri_vec%nucl_reac%id_reac (vecint_type) (7.9.3.1.15)
global_param (1810)	distribution%distri_vec%global_param (dist_glob) (7.9.3.1.116)
enrg (1790)	distribution%distri_vec%global_param%enrg (float) (7.9.3.1.2)
enrg_para (1790)	distribution%distri_vec%global_param%enrg_para (float) (7.9.3.1.2)
pow_coll_i (1790)	distribution%distri_vec%global_param%pow_coll_i (vecflt_type) (7.9.3.1.14)
pow_coll_e (1790)	distribution%distri_vec%global_param%pow_coll_e (float) (7.9.3.1.2)
therm_src (1790)	distribution%distri_vec%global_param%therm_src (dist_src_snk_tot) (7.9.3.1.133)
particles (1807)	distribution%distri_vec%global_param%therm_src%particles (float) (7.9.3.1.2)
power (1807)	distribution%distri_vec%global_param%therm_src%power (float) (7.9.3.1.2)
torque (1807)	distribution%distri_vec%global_param%therm_src%torque (float) (7.9.3.1.2)
losses (1790)	distribution%distri_vec%global_param%losses (dist_glob_dist_losses) (7.9.3.1.117)
orb_loss (1791)	distribution%distri_vec%global_param%losses%orb_loss (dist_src_snk_tot) (7.9.3.1.133)
particles (1807)	distribution%distri_vec%global_param%losses%orb_loss%particles (float) (7.9.3.1.2)
power (1807)	distribution%distri_vec%global_param%losses%orb_loss%power (float) (7.9.3.1.2)
torque (1807)	distribution%distri_vec%global_param%losses%orb_loss%torque (float) (7.9.3.1.2)
neutr_loss (1791)	distribution%distri_vec%global_param%losses%neutr_loss (dist_src_snk_tot) (7.9.3.1.133)
particles (1807)	distribution%distri_vec%global_param%losses%neutr_loss%particles (float) (7.9.3.1.2)
power (1807)	distribution%distri_vec%global_param%losses%neutr_loss%power (float) (7.9.3.1.2)
torque (1807)	distribution%distri_vec%global_param%losses%neutr_loss%torque (float) (7.9.3.1.2)
cur_dr_tor (1790)	distribution%distri_vec%global_param%cur_dr_tor (float) (7.9.3.1.2)
trq_i (1790)	distribution%distri_vec%global_param%trq_i (vecflt_type) (7.9.3.1.14)
trq_e (1790)	distribution%distri_vec%global_param%trq_e (float) (7.9.3.1.2)
trq_j_rxb (1790)	distribution%distri_vec%global_param%trq_j_rxb (float) (7.9.3.1.2)
nucl_reac_th (1790)	distribution%distri_vec%global_param%nucl_reac_th (dist_nucl_reac_th) (7.9.3.1.123)
rate (1797)	distribution%distri_vec%global_param%nucl_reac_th%rate (vecflt_type) (7.9.3.1.14)

power (1797)	distribution%distri_vec%global_param%nucl_reac_th%power (vecflt_type) (7.9.3.1.14)
nucl_reac_sf (1790)	distribution%distri_vec%global_param%nucl_reac_sf (dist_nucl_reac_sf) (7.9.3.1.122)
rate (1796)	distribution%distri_vec%global_param%nucl_reac_sf%rate (float) (7.9.3.1.2)
power (1796)	distribution%distri_vec%global_param%nucl_reac_sf%power (float) (7.9.3.1.2)
profiles_1d (1810)	distribution%distri_vec%profiles_1d (dist_profiles) (7.9.3.1.131)
npsi (1805)	distribution%distri_vec%profiles_1d%npsi (integer) (7.9.3.1.3)
rho_tor_norm (1805)	distribution%distri_vec%profiles_1d%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1805)	distribution%distri_vec%profiles_1d%rho_tor (vecflt_type) (7.9.3.1.14)
psi (1805)	distribution%distri_vec%profiles_1d%psi (vecflt_type) (7.9.3.1.14)
enrgd_tot (1805)	distribution%distri_vec%profiles_1d%enrgd_tot (vecflt_type) (7.9.3.1.14)
enrgd_para (1805)	distribution%distri_vec%profiles_1d%enrgd_para (vecflt_type) (7.9.3.1.14)
powd_coll_i (1805)	distribution%distri_vec%profiles_1d%powd_coll_i (matflt_type) (7.9.3.1.12)
powd_coll_e (1805)	distribution%distri_vec%profiles_1d%powd_coll_e (vecflt_type) (7.9.3.1.14)
therm_srcd (1805)	distribution%distri_vec%profiles_1d%therm_srcd (dist_src_snk_surf) (7.9.3.1.132)
particlesd (1806)	distribution%distri_vec%profiles_1d%therm_srcd%particlesd (vecflt_type) (7.9.3.1.14)
powerd (1806)	distribution%distri_vec%profiles_1d%therm_srcd%powerd (vecflt_type) (7.9.3.1.14)
torqued (1806)	distribution%distri_vec%profiles_1d%therm_srcd%torqued (vecflt_type) (7.9.3.1.14)
lossesd (1805)	distribution%distri_vec%profiles_1d%lossesd (dist_prof_surf_dist_losses) (7.9.3.1.125)
orb_loss (1799)	distribution%distri_vec%profiles_1d%lossesd%orb_loss (dist_src_snk_surf) (7.9.3.1.132)
particlesd (1806)	distribution%distri_vec%profiles_1d%lossesd%orb_loss%particlesd (vecflt_type) (7.9.3.1.14)
powerd (1806)	distribution%distri_vec%profiles_1d%lossesd%orb_loss%powerd (vecflt_type) (7.9.3.1.14)
torqued (1806)	distribution%distri_vec%profiles_1d%lossesd%orb_loss%torqued (vecflt_type) (7.9.3.1.14)
neutr_loss (1799)	distribution%distri_vec%profiles_1d%lossesd%neutr_loss (dist_src_snk_surf) (7.9.3.1.132)
particlesd (1806)	distribution%distri_vec%profiles_1d%lossesd%neutr_loss%particlesd (vecflt_type) (7.9.3.1.14)
powerd (1806)	distribution%distri_vec%profiles_1d%lossesd%neutr_loss%powerd (vecflt_type) (7.9.3.1.14)
torqued (1806)	distribution%distri_vec%profiles_1d%lossesd%neutr_loss%torqued (vecflt_type) (7.9.3.1.14)
curd_fp (1805)	distribution%distri_vec%profiles_1d%curd_fp (vecflt_type) (7.9.3.1.14)
curd_dr (1805)	distribution%distri_vec%profiles_1d%curd_dr (vecflt_type) (7.9.3.1.14)
trqd_i (1805)	distribution%distri_vec%profiles_1d%trqd_i (matflt_type) (7.9.3.1.12)
trqd_e (1805)	distribution%distri_vec%profiles_1d%trqd_e (vecflt_type) (7.9.3.1.14)
trqd_jrxb (1805)	distribution%distri_vec%profiles_1d%trqd_jrxb (vecflt_type) (7.9.3.1.14)
nucl_rd_th (1805)	distribution%distri_vec%profiles_1d%nucl_rd_th (dist_prof_surf_nucl_reac_th) (7.9.3.1.127)
rated (1801)	distribution%distri_vec%profiles_1d%nucl_rd_th%rated (matflt_type) (7.9.3.1.12)
powerd (1801)	distribution%distri_vec%profiles_1d%nucl_rd_th%powerd (matflt_type) (7.9.3.1.12)
nucl_rd_sf (1805)	distribution%distri_vec%profiles_1d%nucl_rd_sf (dist_prof_surf_nucl_reac_sf) (7.9.3.1.126)
rate (1800)	distribution%distri_vec%profiles_1d%nucl_rd_sf%rate (vecflt_type) (7.9.3.1.14)
power (1800)	distribution%distri_vec%profiles_1d%nucl_rd_sf%power (vecflt_type) (7.9.3.1.14)
enrg_tot (1805)	distribution%distri_vec%profiles_1d%enrg_tot (vecflt_type) (7.9.3.1.14)
enrg_para (1805)	distribution%distri_vec%profiles_1d%enrg_para (vecflt_type) (7.9.3.1.14)
pow_coll_i (1805)	distribution%distri_vec%profiles_1d%pow_coll_i (matflt_type) (7.9.3.1.12)
pow_coll_e (1805)	distribution%distri_vec%profiles_1d%pow_coll_e (vecflt_type) (7.9.3.1.14)
therm_src (1805)	distribution%distri_vec%profiles_1d%therm_src (dist_src_snk_vol) (7.9.3.1.134)
particles (1808)	distribution%distri_vec%profiles_1d%therm_src%particles (vecflt_type) (7.9.3.1.14)
power (1808)	distribution%distri_vec%profiles_1d%therm_src%power (vecflt_type) (7.9.3.1.14)
torque (1808)	distribution%distri_vec%profiles_1d%therm_src%torque (vecflt_type) (7.9.3.1.14)
losses (1805)	distribution%distri_vec%profiles_1d%losses (dist_prof_vol_dist_losses) (7.9.3.1.128)
orb_loss (1802)	distribution%distri_vec%profiles_1d%losses%orb_loss (dist_src_snk_vol) (7.9.3.1.134)
particles (1808)	distribution%distri_vec%profiles_1d%losses%orb_loss%particles (vecflt_type) (7.9.3.1.14)
power (1808)	distribution%distri_vec%profiles_1d%losses%orb_loss%power (vecflt_type) (7.9.3.1.14)
torque (1808)	distribution%distri_vec%profiles_1d%losses%orb_loss%torque (vecflt_type) (7.9.3.1.14)
neutr_loss (1802)	distribution%distri_vec%profiles_1d%losses%neutr_loss (dist_src_snk_vol) (7.9.3.1.134)
particles (1808)	distribution%distri_vec%profiles_1d%losses%neutr_loss%particles (vecflt_type) (7.9.3.1.14)
power (1808)	distribution%distri_vec%profiles_1d%losses%neutr_loss%power (vecflt_type) (7.9.3.1.14)
torque (1808)	distribution%distri_vec%profiles_1d%losses%neutr_loss%torque (vecflt_type) (7.9.3.1.14)
cur_fp (1805)	distribution%distri_vec%profiles_1d%cur_fp (vecflt_type) (7.9.3.1.14)
cur_dr (1805)	distribution%distri_vec%profiles_1d%cur_dr (vecflt_type) (7.9.3.1.14)
trq_i (1805)	distribution%distri_vec%profiles_1d%trq_i (matflt_type) (7.9.3.1.12)
trq_e (1805)	distribution%distri_vec%profiles_1d%trq_e (vecflt_type) (7.9.3.1.14)
trq_j_rxb (1805)	distribution%distri_vec%profiles_1d%trq_j_rxb (vecflt_type) (7.9.3.1.14)
nucl_reac_th (1805)	distribution%distri_vec%profiles_1d%nucl_reac_th (dist_prof_vol_nucl_reac_th) (7.9.3.1.130)
rate (1804)	distribution%distri_vec%profiles_1d%nucl_reac_th%rate (matflt_type) (7.9.3.1.12)

power (1804)	distribution%distri_vec%profiles_1d%nucl_reac_th%power (matflt_type) (7.9.3.1.12)
nucl_reac_sf (1805)	distribution%distri_vec%profiles_1d%nucl_reac_sf (dist_prof_vol_nucl_reac_sf) (7.9.3.1.129)
rate (1803)	distribution%distri_vec%profiles_1d%nucl_reac_sf%rate (vecflt_type) (7.9.3.1.14)
power (1803)	distribution%distri_vec%profiles_1d%nucl_reac_sf%power (vecflt_type) (7.9.3.1.14)
dist_func (1810)	distribution%distri_vec%dist_func (dist_func) (7.9.3.1.115)
markers (1789)	distribution%distri_vec%dist_func%markers (dist_markers) (7.9.3.1.120)
nvar (1794)	distribution%distri_vec%dist_func%markers%nvar (float) (7.9.3.1.2)
var_id (1794)	distribution%distri_vec%dist_func%markers%var_id (vecint_type) (7.9.3.1.15)
var1 (1794)	distribution%distri_vec%dist_func%markers%var1 (vecflt_type) (7.9.3.1.14)
var2 (1794)	distribution%distri_vec%dist_func%markers%var2 (vecflt_type) (7.9.3.1.14)
var3 (1794)	distribution%distri_vec%dist_func%markers%var3 (vecflt_type) (7.9.3.1.14)
var4 (1794)	distribution%distri_vec%dist_func%markers%var4 (vecflt_type) (7.9.3.1.14)
var5 (1794)	distribution%distri_vec%dist_func%markers%var5 (vecflt_type) (7.9.3.1.14)
var6 (1794)	distribution%distri_vec%dist_func%markers%var6 (vecflt_type) (7.9.3.1.14)
var7 (1794)	distribution%distri_vec%dist_func%markers%var7 (vecflt_type) (7.9.3.1.14)
weight (1794)	distribution%distri_vec%dist_func%markers%weight (vecflt_type) (7.9.3.1.14)
f_expansion (1789)	distribution%distri_vec%dist_func%f_expansion (dist_ff) (7.9.3.1.114)
grid_info (1788)	distribution%distri_vec%dist_func%f_expansion%grid_info (dist_grid_info) (7.9.3.1.118)
grid_type (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%grid_type (integer) (7.9.3.1.3)
ngriddim (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%ngriddim (integer) (7.9.3.1.3)
grid_coord (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%grid_coord (vecint_type) (7.9.3.1.15)
thin_orbits (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%thin_orbits (integer) (7.9.3.1.3)
topology (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%topology (string) (7.9.3.1.4)
omnigen_surf (1792)	distribution%distri_vec%dist_func%f_expansion%grid_info%omnigen_surf (omnigen_surf) (7.9.3.1.207)
rz (1881)	distribution%distri_vec%dist_func%f_expansion%grid_info%omnigen_surf%rz (rz1D) (7.9.3.1.259)
r (1933)	distribution%distri_vec%dist_func%f_expansion%grid_info%omnigen_surf%rz%r (vecflt_type) (7.9.3.1.14)
z (1933)	distribution%distri_vec%dist_func%f_expansion%grid_info%omnigen_surf%rz%z (vecflt_type) (7.9.3.1.14)
s (1881)	distribution%distri_vec%dist_func%f_expansion%grid_info%omnigen_surf%s (vecflt_type) (7.9.3.1.14)
topo_regions (1788)	distribution%distri_vec%dist_func%f_expansion%topo_regions (topo_regions) (7.9.3.1.321)
ind_omnigen (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%ind_omnigen (integer) (7.9.3.1.3)
dim1 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim1 (array6dflt_type) (7.9.3.1.10)
dim2 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim2 (array6dflt_type) (7.9.3.1.10)
dim3 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim3 (array6dflt_type) (7.9.3.1.10)
dim4 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim4 (array6dflt_type) (7.9.3.1.10)
dim5 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim5 (array6dflt_type) (7.9.3.1.10)
dim6 (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%dim6 (array6dflt_type) (7.9.3.1.10)
jacobian (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%jacobian (array6dflt_type) (7.9.3.1.10)
distfunc (1995)	distribution%distri_vec%dist_func%f_expansion%topo_regions%distfunc (array6dflt_type) (7.9.3.1.10)
input_src (1810)	distribution%distri_vec%input_src (dist_input_src) (7.9.3.1.119)
particle_src (1793)	distribution%distri_vec%input_src%particle_src (dist_particle_src) (7.9.3.1.124)
total (1798)	distribution%distri_vec%input_src%particle_src%total (dist_src_snk_tot) (7.9.3.1.133)
particles (1807)	distribution%distri_vec%input_src%particle_src%total%particles (float) (7.9.3.1.2)
power (1807)	distribution%distri_vec%input_src%particle_src%total%power (float) (7.9.3.1.2)
torque (1807)	distribution%distri_vec%input_src%particle_src%total%torque (float) (7.9.3.1.2)
volume_intgr (1798)	distribution%distri_vec%input_src%particle_src%volume_intgr (dist_src_snk_vol) (7.9.3.1.134)
particles (1808)	distribution%distri_vec%input_src%particle_src%volume_intgr%particles (vecflt_type) (7.9.3.1.14)
power (1808)	distribution%distri_vec%input_src%particle_src%volume_intgr%power (vecflt_type) (7.9.3.1.14)
torque (1808)	distribution%distri_vec%input_src%particle_src%volume_intgr%torque (vecflt_type) (7.9.3.1.14)
flux_surf_av (1798)	distribution%distri_vec%input_src%particle_src%flux_surf_av (dist_src_snk_surf) (7.9.3.1.132)

particlesd (1806)	distribution%distri_vec%input_src%particle_src%flux_surf_av%particlesd (vecflt_type) (7.9.3.1.14)
powerd (1806)	distribution%distri_vec%input_src%particle_src%flux_surf_av%powerd (vecflt_type) (7.9.3.1.14)
torqued (1806)	distribution%distri_vec%input_src%particle_src%flux_surf_av%torqued (vecflt_type) (7.9.3.1.14)
wave_src (1793)	distribution%distri_vec%input_src%wave_src (dist_wave_src) (7.9.3.1.135)
type (1809)	distribution%distri_vec%input_src%wave_src%type (string) (7.9.3.1.4)
wave_power (1809)	distribution%distri_vec%input_src%wave_src%wave_power (float) (7.9.3.1.2)
wave_powerd (1809)	distribution%distri_vec%input_src%wave_src%wave_powerd (vecflt_type) (7.9.3.1.14)
codeparam (1810)	distribution%distri_vec%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	distribution%distri_vec%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	distribution%distri_vec%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	distribution%distri_vec%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	distribution%distri_vec%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	distribution%distri_vec%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1703)	distribution%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	distribution%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	distribution%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	distribution%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	distribution%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	distribution%codeparam%output_flag (integer) (7.9.3.1.3)
time (1703)	distribution%time (float) (7.9.3.1.2)

7.9.3.2.12 distsource

datainfo (1704)	distsource%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	distsource%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	distsource%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	distsource%datainfo%source (string) (7.9.3.1.4)
comment (1783)	distsource%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	distsource%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	distsource%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	distsource%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	distsource%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	distsource%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	distsource%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	distsource%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	distsource%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	distsource%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	distsource%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	distsource%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	distsource%datainfo%putinfo%rights (string) (7.9.3.1.4)
composition (1704)	distsource%composition (composition) (7.9.3.1.91)
amn (1765)	distsource%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	distsource%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	distsource%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	distsource%composition%imp_flag (vecint_type) (7.9.3.1.15)
source (1704)	distsource%source (distsource_source) (7.9.3.1.140)
src_spec (1814)	distsource%source%src_spec (integer) (7.9.3.1.3)
global_param (1814)	distsource%source%global_param (distsource_global_param) (7.9.3.1.137)
src_pow (1811)	distsource%source%global_param%src_pow (exp0D) (7.9.3.1.159)
value (1833)	distsource%source%global_param%src_pow%value (float) (7.9.3.1.2)
abserror (1833)	distsource%source%global_param%src_pow%abserror (float) (7.9.3.1.2)
relerror (1833)	distsource%source%global_param%src_pow%relerror (float) (7.9.3.1.2)
src_rate (1811)	distsource%source%global_param%src_rate (exp0D) (7.9.3.1.159)
value (1833)	distsource%source%global_param%src_rate%value (float) (7.9.3.1.2)
abserror (1833)	distsource%source%global_param%src_rate%abserror (float) (7.9.3.1.2)
relerror (1833)	distsource%source%global_param%src_rate%relerror (float) (7.9.3.1.2)
profiles_1d (1814)	distsource%source%profiles_1d (distsource_profiles_1d) (7.9.3.1.138)
rho_tor_norm (1812)	distsource%source%profiles_1d%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1812)	distsource%source%profiles_1d%rho_tor (vecflt_type) (7.9.3.1.14)

psi (1812)	distsource%source%profiles_1d%psi (vecflt_type) (7.9.3.1.14)
pow_den (1812)	distsource%source%profiles_1d%pow_den (exp1D) (7.9.3.1.160)
value (1834)	distsource%source%profiles_1d%pow_den%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	distsource%source%profiles_1d%pow_den%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	distsource%source%profiles_1d%pow_den%relerror (vecflt_type) (7.9.3.1.14)
src_rate (1812)	distsource%source%profiles_1d%src_rate (exp1D) (7.9.3.1.160)
value (1834)	distsource%source%profiles_1d%src_rate%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	distsource%source%profiles_1d%src_rate%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	distsource%source%profiles_1d%src_rate%relerror (vecflt_type) (7.9.3.1.14)
profiles_2d (1814)	distsource%source%profiles_2d (distsource_profiles_2d) (7.9.3.1.139)
grid_coord (1813)	distsource%source%profiles_2d%grid_coord (vecint_type) (7.9.3.1.15)
dim1 (1813)	distsource%source%profiles_2d%dim1 (matflt_type) (7.9.3.1.12)
dim2 (1813)	distsource%source%profiles_2d%dim2 (matflt_type) (7.9.3.1.12)
g11 (1813)	distsource%source%profiles_2d%g11 (matflt_type) (7.9.3.1.12)
g12 (1813)	distsource%source%profiles_2d%g12 (matflt_type) (7.9.3.1.12)
g21 (1813)	distsource%source%profiles_2d%g21 (matflt_type) (7.9.3.1.12)
g22 (1813)	distsource%source%profiles_2d%g22 (matflt_type) (7.9.3.1.12)
pow_den (1813)	distsource%source%profiles_2d%pow_den (exp2D) (7.9.3.1.161)
value (1835)	distsource%source%profiles_2d%pow_den%value (matflt_type) (7.9.3.1.12)
abserror (1835)	distsource%source%profiles_2d%pow_den%abserror (matflt_type) (7.9.3.1.12)
relerror (1835)	distsource%source%profiles_2d%pow_den%relerror (matflt_type) (7.9.3.1.12)
src_rate (1813)	distsource%source%profiles_2d%src_rate (exp2D) (7.9.3.1.161)
value (1835)	distsource%source%profiles_2d%src_rate%value (matflt_type) (7.9.3.1.12)
abserror (1835)	distsource%source%profiles_2d%src_rate%abserror (matflt_type) (7.9.3.1.12)
relerror (1835)	distsource%source%profiles_2d%src_rate%relerror (matflt_type) (7.9.3.1.12)
source_grid (1814)	distsource%source%source_grid (source_grid) (7.9.3.1.299)
grid_info (1973)	distsource%source%source_grid%grid_info (grid_info) (7.9.3.1.173)
grid_type (1847)	distsource%source%source_grid%grid_info%grid_type (integer) (7.9.3.1.3)
ngriddim (1847)	distsource%source%source_grid%grid_info%ngriddim (integer) (7.9.3.1.3)
grid_coord (1847)	distsource%source%source_grid%grid_info%grid_coord (vecint_type) (7.9.3.1.15)
discrete_dims (1847)	distsource%source%source_grid%grid_info%discrete_dims (vecint_type) (7.9.3.1.15)
gyrosrc_type (1847)	distsource%source%source_grid%grid_info%gyrosrc_type (integer) (7.9.3.1.3)
dim1 (1973)	distsource%source%source_grid%dim1 (array6dflt_type) (7.9.3.1.10)
dim2 (1973)	distsource%source%source_grid%dim2 (array6dflt_type) (7.9.3.1.10)
dim3 (1973)	distsource%source%source_grid%dim3 (array6dflt_type) (7.9.3.1.10)
dim4 (1973)	distsource%source%source_grid%dim4 (array6dflt_type) (7.9.3.1.10)
dim5 (1973)	distsource%source%source_grid%dim5 (array6dflt_type) (7.9.3.1.10)
dim6 (1973)	distsource%source%source_grid%dim6 (array6dflt_type) (7.9.3.1.10)
jacobian (1973)	distsource%source%source_grid%jacobian (array6dflt_type) (7.9.3.1.10)
source (1973)	distsource%source%source_grid%source (array6dflt_type) (7.9.3.1.10)
source_mark (1814)	distsource%source%source_mark (source_mark) (7.9.3.1.302)
var_coord (1976)	distsource%source%source_mark%var_coord (vecint_type) (7.9.3.1.15)
gyrosrc_type (1976)	distsource%source%source_mark%gyrosrc_type (integer) (7.9.3.1.3)
var1 (1976)	distsource%source%source_mark%var1 (vecflt_type) (7.9.3.1.14)
var2 (1976)	distsource%source%source_mark%var2 (vecflt_type) (7.9.3.1.14)
var3 (1976)	distsource%source%source_mark%var3 (vecflt_type) (7.9.3.1.14)
var4 (1976)	distsource%source%source_mark%var4 (vecflt_type) (7.9.3.1.14)
var5 (1976)	distsource%source%source_mark%var5 (vecflt_type) (7.9.3.1.14)
var6 (1976)	distsource%source%source_mark%var6 (vecflt_type) (7.9.3.1.14)
var7 (1976)	distsource%source%source_mark%var7 (vecflt_type) (7.9.3.1.14)
weight (1976)	distsource%source%source_mark%weight (vecflt_type) (7.9.3.1.14)
codeparam (1814)	distsource%source%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	distsource%source%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	distsource%source%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	distsource%source%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	distsource%source%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	distsource%source%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1704)	distsource%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	distsource%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	distsource%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	distsource%codeparam%parameters (string) (7.9.3.1.4)

output_diag (1749)	distsource%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	distsource%codeparam%output_flag (integer) (7.9.3.1.3)
time (1704)	distsource%time (float) (7.9.3.1.2)

7.9.3.2.13 ecediag

datainfo (1705)	ecediag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	ecediag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	ecediag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	ecediag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	ecediag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	ecediag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	ecediag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	ecediag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	ecediag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	ecediag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	ecediag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	ecediag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	ecediag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	ecediag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	ecediag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	ecediag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	ecediag%datainfo%putinfo%rights (string) (7.9.3.1.4)
setup (1705)	ecediag%setup (ecesetup) (7.9.3.1.143)
frequency (1817)	ecediag%setup%frequency (vecflt_type) (7.9.3.1.14)
position (1817)	ecediag%setup%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	ecediag%setup%position%r (exp1D) (7.9.3.1.160)
value (1834)	ecediag%setup%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ecediag%setup%position%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	ecediag%setup%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	ecediag%setup%position%z (exp1D) (7.9.3.1.160)
value (1834)	ecediag%setup%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ecediag%setup%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	ecediag%setup%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	ecediag%setup%position%phi (exp1D) (7.9.3.1.160)
value (1834)	ecediag%setup%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ecediag%setup%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	ecediag%setup%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1705)	ecediag%measure (ecemeasure) (7.9.3.1.142)
te (1816)	ecediag%measure%te (exp1D) (7.9.3.1.160)
value (1834)	ecediag%measure%te%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ecediag%measure%te%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	ecediag%measure%te%relerror (vecflt_type) (7.9.3.1.14)
time (1705)	ecediag%time (float) (7.9.3.1.2)

7.9.3.2.14 edge

datainfo (1706)	edge%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	edge%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	edge%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	edge%datainfo%source (string) (7.9.3.1.4)
comment (1783)	edge%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	edge%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	edge%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	edge%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	edge%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	edge%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	edge%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	edge%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	edge%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	edge%datainfo%putinfo%putmethod (string) (7.9.3.1.4)

putaccess (1906)	edge%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	edge%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	edge%datainfo%putinfo%rights (string) (7.9.3.1.4)
grid (1706)	edge%grid (complexgrid) (7.9.3.1.78)
spaces (1752)	edge%grid%spaces (complexgrid_space) (7.9.3.1.86)
coordtype (1760)	edge%grid%spaces%coordtype (vecint_type) (7.9.3.1.15)
properties (1760)	edge%grid%spaces%properties (complexgrid_space_properties) (7.9.3.1.87)
geotype (1761)	edge%grid%spaces%properties%geotype (integer) (7.9.3.1.3)
geotypeid (1761)	edge%grid%spaces%properties%geotypeid (string) (7.9.3.1.4)
objects (1760)	edge%grid%spaces%objects (objects) (7.9.3.1.204)
boundary (1878)	edge%grid%spaces%objects%boundary (matint_type) (7.9.3.1.13)
neighbour (1878)	edge%grid%spaces%objects%neighbour (array3dint_type) (7.9.3.1.7)
geo (1878)	edge%grid%spaces%objects%geo (array3dflt_type) (7.9.3.1.6)
measure (1878)	edge%grid%spaces%objects%measure (vecflt_type) (7.9.3.1.14)
nodes (1760)	edge%grid%spaces%nodes (complexgrid_nodes) (7.9.3.1.82)
geo (1756)	edge%grid%spaces%nodes%geo (array3dflt_type) (7.9.3.1.6)
xpoints (1756)	edge%grid%spaces%nodes%xpoints (vecint_type) (7.9.3.1.15)
altgeo (1756)	edge%grid%spaces%nodes%altgeo (complexgrid_altgeo) (7.9.3.1.79)
coordtype (1753)	edge%grid%spaces%nodes%altgeo%coordtype (vecint_type) (7.9.3.1.15)
geo (1753)	edge%grid%spaces%nodes%altgeo%geo (array3dflt_type) (7.9.3.1.6)
alias (1756)	edge%grid%spaces%nodes%alias (vecint_type) (7.9.3.1.15)
subgrids (1752)	edge%grid%subgrids (complexgrid_subgrid) (7.9.3.1.88)
id (1762)	edge%grid%subgrids%id (string) (7.9.3.1.4)
list (1762)	edge%grid%subgrids%list (complexgrid_objectlist) (7.9.3.1.83)
cls (1757)	edge%grid%subgrids%list%cls (vecint_type) (7.9.3.1.15)
indset (1757)	edge%grid%subgrids%list%indset (complexgrid_indexlist) (7.9.3.1.80)
range (1754)	edge%grid%subgrids%list%indset%range (vecint_type) (7.9.3.1.15)
ind (1754)	edge%grid%subgrids%list%indset%ind (vecint_type) (7.9.3.1.15)
ind (1757)	edge%grid%subgrids%list%ind (matint_type) (7.9.3.1.13)
metric (1752)	edge%grid%metric (complexgrid_metric) (7.9.3.1.81)
measure (1755)	edge%grid%metric%measure (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%measure%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%measure%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%measure%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%measure%matrix (array3dflt_type) (7.9.3.1.6)
g11 (1755)	edge%grid%metric%g11 (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%g11%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g11%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g11%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g11%matrix (array3dflt_type) (7.9.3.1.6)
g12 (1755)	edge%grid%metric%g12 (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%g12%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g12%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g12%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g12%matrix (array3dflt_type) (7.9.3.1.6)
g13 (1755)	edge%grid%metric%g13 (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%g13%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g13%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g13%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g13%matrix (array3dflt_type) (7.9.3.1.6)
g22 (1755)	edge%grid%metric%g22 (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%g22%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g22%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g22%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g22%matrix (array3dflt_type) (7.9.3.1.6)
g23 (1755)	edge%grid%metric%g23 (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%g23%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g23%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g23%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g23%matrix (array3dflt_type) (7.9.3.1.6)
g33 (1755)	edge%grid%metric%g33 (complexgrid_scalar_simplestruct) (7.9.3.1.85)

subgrid (1759)	edge%grid%metric%g33%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%g33%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%g33%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%g33%matrix (array3dflt_type) (7.9.3.1.6)
jacobian (1755)	edge%grid%metric%jacobian (complexgrid_scalar_simplestruct) (7.9.3.1.85)
subgrid (1759)	edge%grid%metric%jacobian%subgrid (integer) (7.9.3.1.3)
scalar (1759)	edge%grid%metric%jacobian%scalar (vecflt_type) (7.9.3.1.14)
vector (1759)	edge%grid%metric%jacobian%vector (matflt_type) (7.9.3.1.12)
matrix (1759)	edge%grid%metric%jacobian%matrix (array3dflt_type) (7.9.3.1.6)
species (1706)	edge%species (species_desc) (7.9.3.1.307)
label (1981)	edge%species%label (string) (7.9.3.1.4)
amn (1981)	edge%species%amn (float) (7.9.3.1.2)
zn (1981)	edge%species%zn (float) (7.9.3.1.2)
zmin (1981)	edge%species%zmin (float) (7.9.3.1.2)
zmax (1981)	edge%species%zmax (float) (7.9.3.1.2)
fluid (1706)	edge%fluid (edge_fluid) (7.9.3.1.144)
ne (1818)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.3.1.146)
value (1820)	edge%fluid%ne%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1820)	edge%fluid%ne%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1820)	edge%fluid%ne%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ne%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ne%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ne%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ne%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1820)	edge%fluid%ne%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ne%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ne%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ne%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ne%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1820)	edge%fluid%ne%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%ne%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ne%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ne%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ne%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ne%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%ne%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ne%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ne%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)

matrix (1758)	edge%fluid%ne%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ne%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ne%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1820)	edge%fluid%ne%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ne%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ne%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ne%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ne%source%matrix (array3dflt_type) (7.9.3.1.6)
ni (1818)	edge%fluid%ni (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%ni%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%ni%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%ni%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ni%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ni%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ni%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ni%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%ni%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ni%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ni%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ni%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ni%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%ni%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%ni%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ni%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ni%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ni%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ni%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%ni%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ni%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ni%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ni%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ni%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%ni%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ni%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ni%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ni%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ni%source%matrix (array3dflt_type) (7.9.3.1.6)

ve (1818)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.3.1.149)
comps (1823)	edge%fluid%ve%comps (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%ve%comps%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%ve%comps%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%ve%comps%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ve%comps%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ve%comps%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ve%comps%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ve%comps%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%ve%comps%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ve%comps%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ve%comps%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ve%comps%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ve%comps%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%ve%comps%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%ve%comps%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ve%comps%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ve%comps%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ve%comps%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ve%comps%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%ve%comps%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ve%comps%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ve%comps%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ve%comps%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ve%comps%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%ve%comps%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ve%comps%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ve%comps%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ve%comps%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ve%comps%source%matrix (array3dflt_type) (7.9.3.1.6)
align (1823)	edge%fluid%ve%align (vecint_type) (7.9.3.1.15)
alignid (1823)	edge%fluid%ve%alignid (vecstring_type) (7.9.3.1.16)
vi (1818)	edge%fluid%vi (edge_fluid_vector) (7.9.3.1.148)
comps (1822)	edge%fluid%vi%comps (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%vi%comps%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%value%scalar (vecflt_type) (7.9.3.1.14)

vector (1758)	edge%fluid%vi%comps%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%vi%comps%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%vi%comps%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%vi%comps%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%vi%comps%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%vi%comps%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%vi%comps%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%vi%comps%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%vi%comps%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%vi%comps%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%vi%comps%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%vi%comps%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%vi%comps%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%vi%comps%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%vi%comps%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%vi%comps%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%vi%comps%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%vi%comps%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%vi%comps%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%vi%comps%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%vi%comps%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%vi%comps%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%vi%comps%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%vi%comps%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%vi%comps%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%vi%comps%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%vi%comps%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%vi%comps%source%matrix (array3dflt_type) (7.9.3.1.6)
align (1822)	edge%fluid%vi%align (vecint_type) (7.9.3.1.15)
alignid (1822)	edge%fluid%vi%alignid (vecstring_type) (7.9.3.1.16)
te (1818)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.3.1.146)
value (1820)	edge%fluid%te%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1820)	edge%fluid%te%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%bndvalue%vector (matflt_type) (7.9.3.1.12)

matrix (1758)	edge%fluid%te%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1820)	edge%fluid%te%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%te%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%te%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%te%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%te%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1820)	edge%fluid%te%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%te%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%te%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%te%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%te%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1820)	edge%fluid%te%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%te%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%te%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%te%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%te%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%te%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%te%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%te%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%te%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%te%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%te%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1820)	edge%fluid%te%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te%source%matrix (array3dflt_type) (7.9.3.1.6)
ti (1818)	edge%fluid%ti (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%ti%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%ti%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%ti%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ti%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ti%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)

align (1763)	edge%fluid%ti%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ti%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%ti%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ti%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ti%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ti%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ti%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%ti%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%ti%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ti%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ti%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ti%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ti%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%ti%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ti%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ti%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ti%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ti%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%ti%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti%source%matrix (array3dflt_type) (7.9.3.1.6)
te_aniso (1818)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.3.1.149)
comps (1823)	edge%fluid%te_aniso%comps (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%te_aniso%comps%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%te_aniso%comps%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%te_aniso%comps%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%te_aniso%comps%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%te_aniso%comps%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%te_aniso%comps%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%te_aniso%comps%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%te_aniso%comps%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%te_aniso%comps%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%te_aniso%comps%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)

vector (1758)	edge%fluid%te_aniso%comps%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%te_aniso%comps%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%te_aniso%comps%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%te_aniso%comps%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%te_aniso%comps%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%te_aniso%comps%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%te_aniso%comps%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%te_aniso%comps%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%te_aniso%comps%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%te_aniso%comps%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%te_aniso%comps%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%te_aniso%comps%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%te_aniso%comps%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%te_aniso%comps%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%te_aniso%comps%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%te_aniso%comps%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%te_aniso%comps%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%te_aniso%comps%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%te_aniso%comps%source%matrix (array3dflt_type) (7.9.3.1.6)
align (1823)	edge%fluid%te_aniso%align (vecint_type) (7.9.3.1.15)
alignid (1823)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.3.1.16)
ti_aniso (1818)	edge%fluid%ti_aniso (edge_fluid_vector) (7.9.3.1.148)
comps (1822)	edge%fluid%ti_aniso%comps (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%ti_aniso%comps%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%ti_aniso%comps%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%ti_aniso%comps%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ti_aniso%comps%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ti_aniso%comps%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ti_aniso%comps%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ti_aniso%comps%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%ti_aniso%comps%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%ti_aniso%comps%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%ti_aniso%comps%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%ti_aniso%comps%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%ti_aniso%comps%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%ti_aniso%comps%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)

d (1821)	edge%fluid%ti_aniso%comps%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ti_aniso%comps%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ti_aniso%comps%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ti_aniso%comps%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ti_aniso%comps%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%ti_aniso%comps%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%ti_aniso%comps%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%ti_aniso%comps%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%ti_aniso%comps%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%ti_aniso%comps%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%ti_aniso%comps%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%ti_aniso%comps%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%ti_aniso%comps%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%ti_aniso%comps%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%ti_aniso%comps%source%matrix (array3dflt_type) (7.9.3.1.6)
align (1822)	edge%fluid%ti_aniso%align (vecint_type) (7.9.3.1.15)
alignid (1822)	edge%fluid%ti_aniso%alignid (vecstring_type) (7.9.3.1.16)
po (1818)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.3.1.146)
value (1820)	edge%fluid%po%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1820)	edge%fluid%po%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1820)	edge%fluid%po%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%po%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%po%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%po%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%po%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1820)	edge%fluid%po%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%po%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%po%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%po%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%po%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1820)	edge%fluid%po%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%po%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%po%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%po%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)

matrix (1758)	edge%fluid%po%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%po%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%po%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%po%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%po%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%po%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%po%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%po%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1820)	edge%fluid%po%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%po%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%po%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%po%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%po%source%matrix (array3dflt_type) (7.9.3.1.6)
j (1818)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.3.1.149)
comps (1823)	edge%fluid%j%comps (edge_fluid_scalar) (7.9.3.1.145)
value (1819)	edge%fluid%j%comps%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1819)	edge%fluid%j%comps%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
flux (1819)	edge%fluid%j%comps%flux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%j%comps%flux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%j%comps%flux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%flux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%flux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%flux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%flux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%j%comps%flux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%j%comps%flux%alignid (vecstring_type) (7.9.3.1.16)
bndflux (1819)	edge%fluid%j%comps%bndflux (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%fluid%j%comps%bndflux%label (string) (7.9.3.1.4)
comp (1763)	edge%fluid%j%comps%bndflux%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%bndflux%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%bndflux%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%bndflux%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%bndflux%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%fluid%j%comps%bndflux%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%fluid%j%comps%bndflux%alignid (vecstring_type) (7.9.3.1.16)
transpcoeff (1819)	edge%fluid%j%comps%transpcoeff (edge_fluid_scalar_transpcoeff) (7.9.3.1.147)
d (1821)	edge%fluid%j%comps%transpcoeff%d (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%j%comps%transpcoeff%d%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%j%comps%transpcoeff%d%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%transpcoeff%d%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%transpcoeff%d%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%transpcoeff%d%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%transpcoeff%d%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%j%comps%transpcoeff%d%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%j%comps%transpcoeff%d%alignid (vecstring_type) (7.9.3.1.16)
v (1821)	edge%fluid%j%comps%transpcoeff%v (complexgrid_vector_simplestruct) (7.9.3.1.90)
label (1764)	edge%fluid%j%comps%transpcoeff%v%label (string) (7.9.3.1.4)
comp (1764)	edge%fluid%j%comps%transpcoeff%v%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%transpcoeff%v%comp%subgrid (integer) (7.9.3.1.3)

scalar (1758)	edge%fluid%j%comps%transpcoeff%v%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%transpcoeff%v%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%transpcoeff%v%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1764)	edge%fluid%j%comps%transpcoeff%v%align (vecint_type) (7.9.3.1.15)
alignid (1764)	edge%fluid%j%comps%transpcoeff%v%alignid (vecstring_type) (7.9.3.1.16)
source (1819)	edge%fluid%j%comps%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%fluid%j%comps%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%fluid%j%comps%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%fluid%j%comps%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%fluid%j%comps%source%matrix (array3dflt_type) (7.9.3.1.6)
align (1823)	edge%fluid%j%align (vecint_type) (7.9.3.1.15)
alignid (1823)	edge%fluid%j%alignid (vecstring_type) (7.9.3.1.16)
kinetic (1706)	edge%kinetic (edge_kinetic) (7.9.3.1.150)
f (1824)	edge%kinetic%f (edge_kinetic_distribution) (7.9.3.1.151)
value (1825)	edge%kinetic%f%value (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%kinetic%f%value%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%kinetic%f%value%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%kinetic%f%value%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%kinetic%f%value%matrix (array3dflt_type) (7.9.3.1.6)
bndvalue (1825)	edge%kinetic%f%bndvalue (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%kinetic%f%bndvalue%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%kinetic%f%bndvalue%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%kinetic%f%bndvalue%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%kinetic%f%bndvalue%matrix (array3dflt_type) (7.9.3.1.6)
fluxes (1825)	edge%kinetic%f%fluxes (complexgrid_vector) (7.9.3.1.89)
label (1763)	edge%kinetic%f%fluxes%label (string) (7.9.3.1.4)
comp (1763)	edge%kinetic%f%fluxes%comp (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%kinetic%f%fluxes%comp%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%kinetic%f%fluxes%comp%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%kinetic%f%fluxes%comp%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%kinetic%f%fluxes%comp%matrix (array3dflt_type) (7.9.3.1.6)
align (1763)	edge%kinetic%f%fluxes%align (vecint_type) (7.9.3.1.15)
alignid (1763)	edge%kinetic%f%fluxes%alignid (vecstring_type) (7.9.3.1.16)
source (1825)	edge%kinetic%f%source (complexgrid_scalar) (7.9.3.1.84)
subgrid (1758)	edge%kinetic%f%source%subgrid (integer) (7.9.3.1.3)
scalar (1758)	edge%kinetic%f%source%scalar (vecflt_type) (7.9.3.1.14)
vector (1758)	edge%kinetic%f%source%vector (matflt_type) (7.9.3.1.12)
matrix (1758)	edge%kinetic%f%source%matrix (array3dflt_type) (7.9.3.1.6)
codeparam (1706)	edge%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	edge%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	edge%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	edge%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	edge%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	edge%codeparam%output_flag (integer) (7.9.3.1.3)
time (1706)	edge%time (float) (7.9.3.1.2)

7.9.3.2.15 equilibrium

datainfo (1707)	equilibrium%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	equilibrium%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	equilibrium%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	equilibrium%datainfo%source (string) (7.9.3.1.4)
comment (1783)	equilibrium%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	equilibrium%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	equilibrium%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	equilibrium%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	equilibrium%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	equilibrium%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	equilibrium%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	equilibrium%datainfo%putinfo (putinfo) (7.9.3.1.232)

putmethod (1906)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	equilibrium%datainfo%putinfo%rights (string) (7.9.3.1.4)
eqconstraint (1707)	equilibrium%eqconstraint (eqconstraint) (7.9.3.1.155)
bpol (1829)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%bpol%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%bpol%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.3.1.14)
bvac_r (1829)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.3.1.157)
measured (1831)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.3.1.2)
source (1831)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.3.1.4)
time (1831)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.3.1.2)
exact (1831)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.3.1.3)
weight (1831)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.3.1.2)
sigma (1831)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.3.1.2)
calculated (1831)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.3.1.2)
chi2 (1831)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.3.1.2)
diamagflux (1829)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.3.1.157)
measured (1831)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.3.1.2)
source (1831)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.3.1.4)
time (1831)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.3.1.2)
exact (1831)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.3.1.3)
weight (1831)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.3.1.2)
sigma (1831)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.3.1.2)
calculated (1831)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.3.1.2)
chi2 (1831)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.3.1.2)
faraday (1829)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%faraday%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%faraday%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.3.1.14)
flux (1829)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%flux%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%flux%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.3.1.14)
i_plasma (1829)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.3.1.157)
measured (1831)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.3.1.2)
source (1831)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.3.1.4)
time (1831)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.3.1.2)
exact (1831)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.3.1.3)
weight (1831)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.3.1.2)
sigma (1831)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.3.1.2)
calculated (1831)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.3.1.2)
chi2 (1831)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.3.1.2)
isoflux (1829)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.3.1.175)
position (1849)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.3.1.259)

r (1933)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.3.1.14)
source (1849)	equilibrium%eqconstraint%isoflux%source (string) (7.9.3.1.4)
weight (1849)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.3.1.14)
sigma (1849)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.3.1.14)
calculated (1849)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1849)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.3.1.14)
jsurf (1829)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%jsurf%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%jsurf%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.3.1.14)
magnet_iron (1829)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.3.1.189)
mr (1863)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.3.1.14)
mz (1863)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.3.1.14)
mse (1829)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%mse%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%mse%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.3.1.14)
ne (1829)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%ne%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%ne%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.3.1.14)
pfcurrent (1829)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.3.1.14)

chi2 (1832)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.3.1.14)
pressure (1829)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.3.1.158)
measured (1832)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.3.1.14)
source (1832)	equilibrium%eqconstraint%pressure%source (string) (7.9.3.1.4)
time (1832)	equilibrium%eqconstraint%pressure%time (float) (7.9.3.1.2)
exact (1832)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.3.1.15)
weight (1832)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.3.1.14)
sigma (1832)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.3.1.14)
calculated (1832)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1832)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.3.1.14)
q (1829)	equilibrium%eqconstraint%q (q) (7.9.3.1.233)
qvalue (1907)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.3.1.14)
position (1907)	equilibrium%eqconstraint%q%position (rz1D) (7.9.3.1.259)
r (1933)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.3.1.14)
source (1907)	equilibrium%eqconstraint%q%source (string) (7.9.3.1.4)
exact (1907)	equilibrium%eqconstraint%q%exact (integer) (7.9.3.1.3)
weight (1907)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.3.1.14)
sigma (1907)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.3.1.14)
calculated (1907)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.3.1.14)
chi2 (1907)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.3.1.14)
xpts (1829)	equilibrium%eqconstraint%xpts (xpts) (7.9.3.1.351)
position (2025)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.3.1.259)
r (1933)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.3.1.14)
source (2025)	equilibrium%eqconstraint%xpts%source (string) (7.9.3.1.4)
weight (2025)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.3.1.14)
sigma (2025)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.3.1.14)
calculated (2025)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.3.1.14)
chi2 (2025)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.3.1.14)
eqgeometry (1707)	equilibrium%eqgeometry (eqgeometry) (7.9.3.1.156)
source (1830)	equilibrium%eqgeometry%source (string) (7.9.3.1.4)
boundarytype (1830)	equilibrium%eqgeometry%boundarytype (integer) (7.9.3.1.3)
boundary (1830)	equilibrium%eqgeometry%boundary (rz1D_npoints) (7.9.3.1.260)
r (1934)	equilibrium%eqgeometry%boundary%r (vecflt_type) (7.9.3.1.14)
z (1934)	equilibrium%eqgeometry%boundary%z (vecflt_type) (7.9.3.1.14)
npoints (1934)	equilibrium%eqgeometry%boundary%npoints (integer) (7.9.3.1.3)
geom_axis (1830)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.3.1.2)
z (1932)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.3.1.2)
a_minor (1830)	equilibrium%eqgeometry%a_minor (float) (7.9.3.1.2)
elongation (1830)	equilibrium%eqgeometry%elongation (float) (7.9.3.1.2)
tria_upper (1830)	equilibrium%eqgeometry%tria_upper (float) (7.9.3.1.2)
tria_lower (1830)	equilibrium%eqgeometry%tria_lower (float) (7.9.3.1.2)
xpts (1830)	equilibrium%eqgeometry%xpts (rz1D) (7.9.3.1.259)
r (1933)	equilibrium%eqgeometry%xpts%r (vecflt_type) (7.9.3.1.14)
z (1933)	equilibrium%eqgeometry%xpts%z (vecflt_type) (7.9.3.1.14)
left_low_st (1830)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.3.1.2)
z (1932)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.3.1.2)
right_low_st (1830)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.3.1.2)
z (1932)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.3.1.2)
left_up_st (1830)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.3.1.2)
z (1932)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.3.1.2)
right_up_st (1830)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.3.1.2)
z (1932)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.3.1.2)
active_limit (1830)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%eqgeometry%active_limit%r (float) (7.9.3.1.2)

z (1932)	equilibrium%eqgeometry%active_limit%z (float) (7.9.3.1.2)
flush (1707)	equilibrium%flush (flush) (7.9.3.1.163)
datainfo (1837)	equilibrium%flush%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	equilibrium%flush%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	equilibrium%flush%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	equilibrium%flush%datainfo%source (string) (7.9.3.1.4)
comment (1783)	equilibrium%flush%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	equilibrium%flush%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	equilibrium%flush%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	equilibrium%flush%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.3.1.4)
position (1837)	equilibrium%flush%position (rz1D) (7.9.3.1.259)
r (1933)	equilibrium%flush%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	equilibrium%flush%position%z (vecflt_type) (7.9.3.1.14)
coef (1837)	equilibrium%flush%coef (matflt_type) (7.9.3.1.12)
codeparam (1837)	equilibrium%flush%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	equilibrium%flush%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	equilibrium%flush%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	equilibrium%flush%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	equilibrium%flush%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	equilibrium%flush%codeparam%output_flag (integer) (7.9.3.1.3)
global_param (1707)	equilibrium%global_param (global_param) (7.9.3.1.170)
beta_pol (1844)	equilibrium%global_param%beta_pol (float) (7.9.3.1.2)
beta_tor (1844)	equilibrium%global_param%beta_tor (float) (7.9.3.1.2)
beta_normal (1844)	equilibrium%global_param%beta_normal (float) (7.9.3.1.2)
i_plasma (1844)	equilibrium%global_param%i_plasma (float) (7.9.3.1.2)
li (1844)	equilibrium%global_param%li (float) (7.9.3.1.2)
volume (1844)	equilibrium%global_param%volume (float) (7.9.3.1.2)
area (1844)	equilibrium%global_param%area (float) (7.9.3.1.2)
psi_ax (1844)	equilibrium%global_param%psi_ax (float) (7.9.3.1.2)
psi_bound (1844)	equilibrium%global_param%psi_bound (float) (7.9.3.1.2)
mag_axis (1844)	equilibrium%global_param%mag_axis (mag_axis) (7.9.3.1.188)
position (1862)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.3.1.258)
r (1932)	equilibrium%global_param%mag_axis%position%r (float) (7.9.3.1.2)
z (1932)	equilibrium%global_param%mag_axis%position%z (float) (7.9.3.1.2)
bphi (1862)	equilibrium%global_param%mag_axis%bphi (float) (7.9.3.1.2)
q (1862)	equilibrium%global_param%mag_axis%q (float) (7.9.3.1.2)
q_95 (1844)	equilibrium%global_param%q_95 (float) (7.9.3.1.2)
q_min (1844)	equilibrium%global_param%q_min (float) (7.9.3.1.2)
toroid_field (1844)	equilibrium%global_param%toroid_field (b0r0) (7.9.3.1.65)
r0 (1739)	equilibrium%global_param%toroid_field%r0 (float) (7.9.3.1.2)
b0 (1739)	equilibrium%global_param%toroid_field%b0 (float) (7.9.3.1.2)
w_mhd (1844)	equilibrium%global_param%w_mhd (float) (7.9.3.1.2)
gamma (1844)	equilibrium%global_param%gamma (float) (7.9.3.1.2)
profiles_1d (1707)	equilibrium%profiles_1d (profiles_1d) (7.9.3.1.228)
psi (1902)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.3.1.14)
phi (1902)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.3.1.14)
pressure (1902)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.3.1.14)
F_dia (1902)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.3.1.14)
pprime (1902)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.3.1.14)
ffprime (1902)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.3.1.14)
jphi (1902)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.3.1.14)
jparallel (1902)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.3.1.14)

q (1902)	equilibrium%profiles_1d%q (vecflt_type) (7.9.3.1.14)
r_inboard (1902)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.3.1.14)
r_outboard (1902)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.3.1.14)
rho_tor (1902)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.3.1.14)
dpsidrho_tor (1902)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.3.1.14)
rho_vol (1902)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.3.1.14)
beta_pol (1902)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.3.1.14)
li (1902)	equilibrium%profiles_1d%li (vecflt_type) (7.9.3.1.14)
elongation (1902)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.3.1.14)
tria_upper (1902)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.3.1.14)
tria_lower (1902)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.3.1.14)
volume (1902)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.3.1.14)
vprime (1902)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.3.1.14)
area (1902)	equilibrium%profiles_1d%area (vecflt_type) (7.9.3.1.14)
aprime (1902)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.3.1.14)
surface (1902)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.3.1.14)
ftrap (1902)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.3.1.14)
gm1 (1902)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.3.1.14)
gm2 (1902)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.3.1.14)
gm3 (1902)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.3.1.14)
gm4 (1902)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.3.1.14)
gm5 (1902)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.3.1.14)
gm6 (1902)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.3.1.14)
gm7 (1902)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.3.1.14)
gm8 (1902)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.3.1.14)
gm9 (1902)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.3.1.14)
b_av (1902)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.3.1.14)
b_min (1902)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.3.1.14)
b_max (1902)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.3.1.14)
omega (1902)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.3.1.14)
omegaprime (1902)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.3.1.14)
mach_a (1902)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.3.1.14)
phi_flow (1902)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.3.1.14)
s_flow (1902)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.3.1.14)
h_flow (1902)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.3.1.14)
profiles_2d (1707)	equilibrium%profiles_2d (profiles_2d) (7.9.3.1.229)
grid_type (1903)	equilibrium%profiles_2d%grid_type (string) (7.9.3.1.4)
grid (1903)	equilibrium%profiles_2d%grid (grid) (7.9.3.1.172)
dim1 (1846)	equilibrium%profiles_2d%grid%dim1 (vecflt_type) (7.9.3.1.14)
dim2 (1846)	equilibrium%profiles_2d%grid%dim2 (vecflt_type) (7.9.3.1.14)
connect (1846)	equilibrium%profiles_2d%grid%connect (matint_type) (7.9.3.1.13)
r (1903)	equilibrium%profiles_2d%r (matflt_type) (7.9.3.1.12)
z (1903)	equilibrium%profiles_2d%z (matflt_type) (7.9.3.1.12)
psi (1903)	equilibrium%profiles_2d%psi (matflt_type) (7.9.3.1.12)
theta (1903)	equilibrium%profiles_2d%theta (matflt_type) (7.9.3.1.12)
jphi (1903)	equilibrium%profiles_2d%jphi (matflt_type) (7.9.3.1.12)
jpar (1903)	equilibrium%profiles_2d%jpar (matflt_type) (7.9.3.1.12)
br (1903)	equilibrium%profiles_2d%br (matflt_type) (7.9.3.1.12)
bz (1903)	equilibrium%profiles_2d%bz (matflt_type) (7.9.3.1.12)
bphi (1903)	equilibrium%profiles_2d%bphi (matflt_type) (7.9.3.1.12)
vphi (1903)	equilibrium%profiles_2d%vphi (matflt_type) (7.9.3.1.12)
vtheta (1903)	equilibrium%profiles_2d%vtheta (matflt_type) (7.9.3.1.12)
rho_mass (1903)	equilibrium%profiles_2d%rho_mass (matflt_type) (7.9.3.1.12)
pressure (1903)	equilibrium%profiles_2d%pressure (matflt_type) (7.9.3.1.12)
temperature (1903)	equilibrium%profiles_2d%temperature (matflt_type) (7.9.3.1.12)
coord_sys (1707)	equilibrium%coord_sys (coord_sys) (7.9.3.1.93)
grid_type (1767)	equilibrium%coord_sys%grid_type (string) (7.9.3.1.4)
grid (1767)	equilibrium%coord_sys%grid (reggrid) (7.9.3.1.256)
dim1 (1930)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.3.1.14)
dim2 (1930)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.3.1.14)
jacobian (1767)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.3.1.12)

g_11 (1767)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.3.1.12)
g_12 (1767)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.3.1.12)
g_13 (1767)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.3.1.12)
g_22 (1767)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.3.1.12)
g_23 (1767)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.3.1.12)
g_33 (1767)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.3.1.12)
position (1767)	equilibrium%coord_sys%position (rz2D) (7.9.3.1.261)
r (1935)	equilibrium%coord_sys%position%r (matflt_type) (7.9.3.1.12)
z (1935)	equilibrium%coord_sys%position%z (matflt_type) (7.9.3.1.12)
time (1707)	equilibrium%time (float) (7.9.3.1.2)
codeparam (1707)	equilibrium%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	equilibrium%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	equilibrium%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	equilibrium%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	equilibrium%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	equilibrium%codeparam%output_flag (integer) (7.9.3.1.3)

7.9.3.2.16 fusiondiag

datainfo (1708)	fusiondiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	fusiondiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	fusiondiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	fusiondiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	fusiondiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	fusiondiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	fusiondiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	fusiondiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	fusiondiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	fusiondiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	fusiondiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	fusiondiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	fusiondiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
source (1708)	fusiondiag%source (source) (7.9.3.1.297)
fus_product (1971)	fusiondiag%source%fus_product (string) (7.9.3.1.4)
reaction (1971)	fusiondiag%source%reaction (string) (7.9.3.1.4)
counts (1971)	fusiondiag%source%counts (counts) (7.9.3.1.106)
expression (1780)	fusiondiag%source%counts%expression (string) (7.9.3.1.4)
setup_line (1780)	fusiondiag%source%counts%setup_line (setup_line) (7.9.3.1.295)
pivot_point (1969)	fusiondiag%source%counts%setup_line%pivot_point (rzphi1D) (7.9.3.1.264)
r (1938)	fusiondiag%source%counts%setup_line%pivot_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	fusiondiag%source%counts%setup_line%pivot_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	fusiondiag%source%counts%setup_line%pivot_point%phi (vecflt_type) (7.9.3.1.14)
horchordang1 (1969)	fusiondiag%source%counts%setup_line%horchordang1 (vecflt_type) (7.9.3.1.14)
verchordang1 (1969)	fusiondiag%source%counts%setup_line%verchordang1 (vecflt_type) (7.9.3.1.14)
width (1969)	fusiondiag%source%counts%setup_line%width (vecflt_type) (7.9.3.1.14)
second_point (1969)	fusiondiag%source%counts%setup_line%second_point (rzphi1D) (7.9.3.1.264)
r (1938)	fusiondiag%source%counts%setup_line%second_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	fusiondiag%source%counts%setup_line%second_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	fusiondiag%source%counts%setup_line%second_point%phi (vecflt_type) (7.9.3.1.14)
horchordang2 (1969)	fusiondiag%source%counts%setup_line%horchordang2 (vecflt_type) (7.9.3.1.14)
verchordang2 (1969)	fusiondiag%source%counts%setup_line%verchordang2 (vecflt_type) (7.9.3.1.14)
third_point (1969)	fusiondiag%source%counts%setup_line%third_point (rzphi1D) (7.9.3.1.264)
r (1938)	fusiondiag%source%counts%setup_line%third_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	fusiondiag%source%counts%setup_line%third_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	fusiondiag%source%counts%setup_line%third_point%phi (vecflt_type) (7.9.3.1.14)
nchordpoints (1969)	fusiondiag%source%counts%setup_line%nchordpoints (integer) (7.9.3.1.3)
measure (1780)	fusiondiag%source%counts%measure (exp1D) (7.9.3.1.160)

value (1834)	fusiondiag%source%counts%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	fusiondiag%source%counts%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	fusiondiag%source%counts%measure%relerror (vecflt_type) (7.9.3.1.14)
emissivity1d (1971)	fusiondiag%source%emissivity1d (emissivity1d) (7.9.3.1.152)
r (1826)	fusiondiag%source%emissivity1d%r (exp1D) (7.9.3.1.160)
value (1834)	fusiondiag%source%emissivity1d%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	fusiondiag%source%emissivity1d%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	fusiondiag%source%emissivity1d%r%relerror (vecflt_type) (7.9.3.1.14)
z (1826)	fusiondiag%source%emissivity1d%z (exp1D) (7.9.3.1.160)
value (1834)	fusiondiag%source%emissivity1d%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	fusiondiag%source%emissivity1d%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	fusiondiag%source%emissivity1d%z%relerror (vecflt_type) (7.9.3.1.14)
measure (1826)	fusiondiag%source%emissivity1d%measure (exp1D) (7.9.3.1.160)
value (1834)	fusiondiag%source%emissivity1d%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	fusiondiag%source%emissivity1d%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	fusiondiag%source%emissivity1d%measure%relerror (vecflt_type) (7.9.3.1.14)
emissivity2d (1971)	fusiondiag%source%emissivity2d (emissivity2d) (7.9.3.1.153)
r (1827)	fusiondiag%source%emissivity2d%r (exp2D) (7.9.3.1.161)
value (1835)	fusiondiag%source%emissivity2d%r%value (matflt_type) (7.9.3.1.12)
abserror (1835)	fusiondiag%source%emissivity2d%r%abserror (matflt_type) (7.9.3.1.12)
relerror (1835)	fusiondiag%source%emissivity2d%r%relerror (matflt_type) (7.9.3.1.12)
z (1827)	fusiondiag%source%emissivity2d%z (exp2D) (7.9.3.1.161)
value (1835)	fusiondiag%source%emissivity2d%z%value (matflt_type) (7.9.3.1.12)
abserror (1835)	fusiondiag%source%emissivity2d%z%abserror (matflt_type) (7.9.3.1.12)
relerror (1835)	fusiondiag%source%emissivity2d%z%relerror (matflt_type) (7.9.3.1.12)
measure (1827)	fusiondiag%source%emissivity2d%measure (exp2D) (7.9.3.1.161)
value (1835)	fusiondiag%source%emissivity2d%measure%value (matflt_type) (7.9.3.1.12)
abserror (1835)	fusiondiag%source%emissivity2d%measure%abserror (matflt_type) (7.9.3.1.12)
relerror (1835)	fusiondiag%source%emissivity2d%measure%relerror (matflt_type) (7.9.3.1.12)
codeparam (1971)	fusiondiag%source%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	fusiondiag%source%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	fusiondiag%source%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	fusiondiag%source%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	fusiondiag%source%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	fusiondiag%source%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1708)	fusiondiag%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	fusiondiag%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	fusiondiag%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	fusiondiag%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	fusiondiag%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	fusiondiag%codeparam%output_flag (integer) (7.9.3.1.3)
time (1708)	fusiondiag%time (float) (7.9.3.1.2)

7.9.3.2.17 interfdiag

datainfo (1860)	lineintegraldiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	lineintegraldiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	lineintegraldiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	lineintegraldiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	lineintegraldiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	lineintegraldiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	lineintegraldiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	lineintegraldiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)

rights (1906)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
expression (1860)	lineintegraldiag%expression (string) (7.9.3.1.4)
setup_line (1860)	lineintegraldiag%setup_line (setup_line) (7.9.3.1.295)
pivot_point (1969)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.3.1.14)
horchordang1 (1969)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.3.1.14)
verchordang1 (1969)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.3.1.14)
width (1969)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.3.1.14)
second_point (1969)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.3.1.14)
horchordang2 (1969)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.3.1.14)
verchordang2 (1969)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.3.1.14)
third_point (1969)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.3.1.14)
nchordpoints (1969)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.3.1.3)
measure (1860)	lineintegraldiag%measure (exp1D) (7.9.3.1.160)
value (1834)	lineintegraldiag%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.3.1.14)
time (1860)	lineintegraldiag%time (float) (7.9.3.1.2)

7.9.3.2.18 ironmodel

datainfo (1710)	ironmodel%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	ironmodel%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	ironmodel%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	ironmodel%datainfo%source (string) (7.9.3.1.4)
comment (1783)	ironmodel%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	ironmodel%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	ironmodel%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	ironmodel%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	ironmodel%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	ironmodel%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	ironmodel%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	ironmodel%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	ironmodel%datainfo%putinfo%rights (string) (7.9.3.1.4)
desc_iron (1710)	ironmodel%desc_iron (desc_iron) (7.9.3.1.111)
name (1785)	ironmodel%desc_iron%name (vecstring_type) (7.9.3.1.16)
id (1785)	ironmodel%desc_iron%id (vecstring_type) (7.9.3.1.16)
permeability (1785)	ironmodel%desc_iron%permeability (permeability) (7.9.3.1.213)
b (1887)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.3.1.12)
mur (1887)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.3.1.12)
geom_iron (1785)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.3.1.169)
npoints (1843)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.3.1.15)
rzcoordinate (1843)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.3.1.261)
r (1935)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.3.1.12)
z (1935)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.3.1.12)
magnetise (1710)	ironmodel%magnetise (magnetise) (7.9.3.1.190)
mr (1864)	ironmodel%magnetise%mr (exp1D) (7.9.3.1.160)
value (1834)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.3.1.14)

relerror (1834)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.3.1.14)
mz (1864)	ironmodel%magnetise%mz (exp1D) (7.9.3.1.160)
value (1834)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.3.1.14)
time (1710)	ironmodel%time (float) (7.9.3.1.2)

7.9.3.2.19 langmuirdiag

datainfo (1711)	langmuirdiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	langmuirdiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	langmuirdiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	langmuirdiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	langmuirdiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	langmuirdiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	langmuirdiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	langmuirdiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	langmuirdiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	langmuirdiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
potential (1711)	langmuirdiag%potential (lang_measure) (7.9.3.1.178)
name (1852)	langmuirdiag%potential%name (vecstring_type) (7.9.3.1.16)
direction (1852)	langmuirdiag%potential%direction (vecstring_type) (7.9.3.1.16)
area (1852)	langmuirdiag%potential%area (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%potential%area%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.3.1.14)
position (1852)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%potential%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%potential%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%potential%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1852)	langmuirdiag%potential%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.3.1.14)
bias (1711)	langmuirdiag%bias (lang_measure) (7.9.3.1.178)
name (1852)	langmuirdiag%bias%name (vecstring_type) (7.9.3.1.16)
direction (1852)	langmuirdiag%bias%direction (vecstring_type) (7.9.3.1.16)
area (1852)	langmuirdiag%bias%area (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%bias%area%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.3.1.14)
position (1852)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%bias%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.3.1.14)

relerror (1834)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%bias%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%bias%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1852)	langmuirdiag%bias%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.3.1.14)
jsat (1711)	langmuirdiag%jsat (lang_measure) (7.9.3.1.178)
name (1852)	langmuirdiag%jsat%name (vecstring_type) (7.9.3.1.16)
direction (1852)	langmuirdiag%jsat%direction (vecstring_type) (7.9.3.1.16)
area (1852)	langmuirdiag%jsat%area (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.3.1.14)
position (1852)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%jsat%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%jsat%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%jsat%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1852)	langmuirdiag%jsat%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.3.1.14)
ne (1711)	langmuirdiag%ne (lang_derived) (7.9.3.1.177)
source (1851)	langmuirdiag%ne%source (vecstring_type) (7.9.3.1.16)
position (1851)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%ne%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%ne%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%ne%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.3.1.14)
measure (1851)	langmuirdiag%ne%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.3.1.14)
te (1711)	langmuirdiag%te (lang_derived) (7.9.3.1.177)
source (1851)	langmuirdiag%te%source (vecstring_type) (7.9.3.1.16)
position (1851)	langmuirdiag%te%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%te%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.3.1.14)

absError (1834)	langmuirdiag%te%position%r%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%te%position%r%relError (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%te%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%te%position%z%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%te%position%z%relError (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%te%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%te%position%phi%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%te%position%phi%relError (vecflt_type) (7.9.3.1.14)
measure (1851)	langmuirdiag%te%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%te%measure%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%te%measure%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%te%measure%relError (vecflt_type) (7.9.3.1.14)
machpar (1711)	langmuirdiag%machpar (lang_derived) (7.9.3.1.177)
source (1851)	langmuirdiag%machpar%source (vecstring_type) (7.9.3.1.16)
position (1851)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.3.1.265)
r (1939)	langmuirdiag%machpar%position%r (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%machpar%position%r%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%machpar%position%r%relError (vecflt_type) (7.9.3.1.14)
z (1939)	langmuirdiag%machpar%position%z (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%machpar%position%z%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%machpar%position%z%relError (vecflt_type) (7.9.3.1.14)
phi (1939)	langmuirdiag%machpar%position%phi (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%machpar%position%phi%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%machpar%position%phi%relError (vecflt_type) (7.9.3.1.14)
measure (1851)	langmuirdiag%machpar%measure (exp1D) (7.9.3.1.160)
value (1834)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.3.1.14)
absError (1834)	langmuirdiag%machpar%measure%absError (vecflt_type) (7.9.3.1.14)
relError (1834)	langmuirdiag%machpar%measure%relError (vecflt_type) (7.9.3.1.14)
codeparam (1711)	langmuirdiag%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	langmuirdiag%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	langmuirdiag%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	langmuirdiag%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	langmuirdiag%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	langmuirdiag%codeparam%output_flag (integer) (7.9.3.1.3)
time (1711)	langmuirdiag%time (float) (7.9.3.1.2)

7.9.3.2.20 launchs

datainfo (1712)	launchs%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	launchs%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	launchs%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	launchs%datainfo%source (string) (7.9.3.1.4)
comment (1783)	launchs%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	launchs%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	launchs%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	launchs%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	launchs%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	launchs%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	launchs%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	launchs%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	launchs%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	launchs%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	launchs%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	launchs%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	launchs%datainfo%putinfo%rights (string) (7.9.3.1.4)
name (1712)	launchs%name (vecstring_type) (7.9.3.1.16)

type (1712)	launchs%type (vecstring_type) (7.9.3.1.16)
frequency (1712)	launchs%frequency (vecflt_type) (7.9.3.1.14)
mode (1712)	launchs%mode (vecint_type) (7.9.3.1.15)
position (1712)	launchs%position (rzphi1D) (7.9.3.1.264)
r (1938)	launchs%position%r (vecflt_type) (7.9.3.1.14)
z (1938)	launchs%position%z (vecflt_type) (7.9.3.1.14)
phi (1938)	launchs%position%phi (vecflt_type) (7.9.3.1.14)
spectrum (1712)	launchs%spectrum (spectrum) (7.9.3.1.308)
phi_theta (1982)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.3.1.181)
nn_phi (1855)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.3.1.15)
nn_theta (1855)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.3.1.15)
n_phi (1855)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.3.1.12)
n_theta (1855)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.3.1.12)
power (1855)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.3.1.6)
parallel (1982)	launchs%spectrum%parallel (launchs_parallel) (7.9.3.1.180)
nn_par (1854)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.3.1.15)
n_par (1854)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.3.1.12)
power (1854)	launchs%spectrum%parallel%power (vecflt_type) (7.9.3.1.14)
beam (1712)	launchs%beam (launchs_rfbeam) (7.9.3.1.182)
spot (1856)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.3.1.184)
waist (1858)	launchs%beam%spot%waist (matflt_type) (7.9.3.1.12)
angle (1858)	launchs%beam%spot%angle (vecflt_type) (7.9.3.1.14)
phaseellipse (1856)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.3.1.183)
invcurvrad (1857)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.3.1.12)
angle (1857)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.3.1.14)
codeparam (1712)	launchs%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	launchs%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	launchs%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	launchs%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	launchs%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	launchs%codeparam%output_flag (integer) (7.9.3.1.3)
time (1712)	launchs%time (float) (7.9.3.1.2)

7.9.3.2.21 limiter

datainfo (1713)	limiter%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	limiter%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	limiter%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	limiter%datainfo%source (string) (7.9.3.1.4)
comment (1783)	limiter%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	limiter%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	limiter%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	limiter%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	limiter%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	limiter%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	limiter%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	limiter%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	limiter%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	limiter%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	limiter%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	limiter%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	limiter%datainfo%putinfo%rights (string) (7.9.3.1.4)
limiter_unit (1713)	limiter%limiter_unit (limiter_unit) (7.9.3.1.185)
name (1859)	limiter%limiter_unit%name (string) (7.9.3.1.4)
closed (1859)	limiter%limiter_unit%closed (string) (7.9.3.1.4)
position (1859)	limiter%limiter_unit%position (rz1D) (7.9.3.1.259)
r (1933)	limiter%limiter_unit%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	limiter%limiter_unit%position%z (vecflt_type) (7.9.3.1.14)

7.9.3.2.22 magdiag

datainfo (1714)	magdiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	magdiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	magdiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	magdiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	magdiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	magdiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	magdiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	magdiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	magdiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	magdiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	magdiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	magdiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	magdiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	magdiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	magdiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	magdiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	magdiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
ip (1714)	magdiag%ip (exp0D) (7.9.3.1.159)
value (1833)	magdiag%ip%value (float) (7.9.3.1.2)
abserror (1833)	magdiag%ip%abserror (float) (7.9.3.1.2)
relerror (1833)	magdiag%ip%relerror (float) (7.9.3.1.2)
diamagflux (1714)	magdiag%diamagflux (exp0D) (7.9.3.1.159)
value (1833)	magdiag%diamagflux%value (float) (7.9.3.1.2)
abserror (1833)	magdiag%diamagflux%abserror (float) (7.9.3.1.2)
relerror (1833)	magdiag%diamagflux%relerror (float) (7.9.3.1.2)
flux_loops (1714)	magdiag%flux_loops (flux_loops) (7.9.3.1.164)
setup_floops (1838)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.3.1.293)
name (1967)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.3.1.16)
id (1967)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.3.1.16)
position (1967)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.3.1.266)
r (1940)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.3.1.12)
z (1940)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.3.1.12)
phi (1940)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.3.1.12)
npoints (1967)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.3.1.15)
measure (1838)	magdiag%flux_loops%measure (exp1D) (7.9.3.1.160)
value (1834)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.3.1.14)
bpol_probes (1714)	magdiag%bpol_probes (bpol_probes) (7.9.3.1.73)
setup_bprobe (1747)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.3.1.292)
name (1966)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.3.1.16)
id (1966)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.3.1.16)
position (1966)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.3.1.259)
r (1933)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.3.1.14)
polangle (1966)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.3.1.14)
torangle (1966)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.3.1.14)
area (1966)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.3.1.14)
length (1966)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.3.1.14)
turns (1966)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.3.1.15)
measure (1747)	magdiag%bpol_probes%measure (exp1D) (7.9.3.1.160)
value (1834)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.3.1.14)
time (1714)	magdiag%time (float) (7.9.3.1.2)

7.9.3.2.23 mhd

datainfo (1715)	mhd%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	mhd%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	mhd%datainfo%putdate (string) (7.9.3.1.4)

source (1783)	mhd%datainfo%source (string) (7.9.3.1.4)
comment (1783)	mhd%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	mhd%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	mhd%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	mhd%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	mhd%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	mhd%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	mhd%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	mhd%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	mhd%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	mhd%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	mhd%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	mhd%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	mhd%datainfo%putinfo%rights (string) (7.9.3.1.4)
n (1715)	mhd%n (vecint_type) (7.9.3.1.15)
frequency (1715)	mhd%frequency (vecflt_type) (7.9.3.1.14)
growthrate (1715)	mhd%growthrate (vecflt_type) (7.9.3.1.14)
plasma (1715)	mhd%plasma (mhd_plasma) (7.9.3.1.193)
psi (1867)	mhd%plasma%psi (vecflt_type) (7.9.3.1.14)
m (1867)	mhd%plasma%m (array3dflt_type) (7.9.3.1.6)
disp_perp (1867)	mhd%plasma%disp_perp (array3dflt_type) (7.9.3.1.6)
disp_par (1867)	mhd%plasma%disp_par (array3dflt_type) (7.9.3.1.6)
tau_alfven (1867)	mhd%plasma%tau_alfven (vecflt_type) (7.9.3.1.14)
tau_resistive (1867)	mhd%plasma%tau_resistive (vecflt_type) (7.9.3.1.14)
coord_sys (1867)	mhd%plasma%coord_sys (coord_sys) (7.9.3.1.93)
grid_type (1767)	mhd%plasma%coord_sys%grid_type (string) (7.9.3.1.4)
grid (1767)	mhd%plasma%coord_sys%grid (reggrid) (7.9.3.1.256)
dim1 (1930)	mhd%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.3.1.14)
dim2 (1930)	mhd%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.3.1.14)
jacobian (1767)	mhd%plasma%coord_sys%jacobian (matflt_type) (7.9.3.1.12)
g_11 (1767)	mhd%plasma%coord_sys%g_11 (matflt_type) (7.9.3.1.12)
g_12 (1767)	mhd%plasma%coord_sys%g_12 (matflt_type) (7.9.3.1.12)
g_13 (1767)	mhd%plasma%coord_sys%g_13 (matflt_type) (7.9.3.1.12)
g_22 (1767)	mhd%plasma%coord_sys%g_22 (matflt_type) (7.9.3.1.12)
g_23 (1767)	mhd%plasma%coord_sys%g_23 (matflt_type) (7.9.3.1.12)
g_33 (1767)	mhd%plasma%coord_sys%g_33 (matflt_type) (7.9.3.1.12)
position (1767)	mhd%plasma%coord_sys%position (rz2D) (7.9.3.1.261)
r (1935)	mhd%plasma%coord_sys%position%r (matflt_type) (7.9.3.1.12)
z (1935)	mhd%plasma%coord_sys%position%z (matflt_type) (7.9.3.1.12)
a_pert (1867)	mhd%plasma%a_pert (mhd_vector) (7.9.3.1.196)
coord1 (1870)	mhd%plasma%a_pert%coord1 (array3dflt_type) (7.9.3.1.6)
coord2 (1870)	mhd%plasma%a_pert%coord2 (array3dflt_type) (7.9.3.1.6)
coord3 (1870)	mhd%plasma%a_pert%coord3 (array3dflt_type) (7.9.3.1.6)
b_pert (1867)	mhd%plasma%b_pert (mhd_vector) (7.9.3.1.196)
coord1 (1870)	mhd%plasma%b_pert%coord1 (array3dflt_type) (7.9.3.1.6)
coord2 (1870)	mhd%plasma%b_pert%coord2 (array3dflt_type) (7.9.3.1.6)
coord3 (1870)	mhd%plasma%b_pert%coord3 (array3dflt_type) (7.9.3.1.6)
v_pert (1867)	mhd%plasma%v_pert (mhd_vector) (7.9.3.1.196)
coord1 (1870)	mhd%plasma%v_pert%coord1 (array3dflt_type) (7.9.3.1.6)
coord2 (1870)	mhd%plasma%v_pert%coord2 (array3dflt_type) (7.9.3.1.6)
coord3 (1870)	mhd%plasma%v_pert%coord3 (array3dflt_type) (7.9.3.1.6)
p_pert (1867)	mhd%plasma%p_pert (array3dflt_type) (7.9.3.1.6)
rho_mass_pert (1867)	mhd%plasma%rho_mass_pert (array3dflt_type) (7.9.3.1.6)
temp_pert (1867)	mhd%plasma%temp_pert (array3dflt_type) (7.9.3.1.6)
vacuum (1715)	mhd%vacuum (mhd_vacuum) (7.9.3.1.195)
m (1869)	mhd%vacuum%m (array3dflt_type) (7.9.3.1.6)
coord_sys (1869)	mhd%vacuum%coord_sys (coord_sys) (7.9.3.1.93)
grid_type (1767)	mhd%vacuum%coord_sys%grid_type (string) (7.9.3.1.4)
grid (1767)	mhd%vacuum%coord_sys%grid (reggrid) (7.9.3.1.256)
dim1 (1930)	mhd%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.3.1.14)
dim2 (1930)	mhd%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.3.1.14)

jacobian (1767)	mhd%vacuum%coord_sys%jacobian (matflt_type) (7.9.3.1.12)
g_11 (1767)	mhd%vacuum%coord_sys%g_11 (matflt_type) (7.9.3.1.12)
g_12 (1767)	mhd%vacuum%coord_sys%g_12 (matflt_type) (7.9.3.1.12)
g_13 (1767)	mhd%vacuum%coord_sys%g_13 (matflt_type) (7.9.3.1.12)
g_22 (1767)	mhd%vacuum%coord_sys%g_22 (matflt_type) (7.9.3.1.12)
g_23 (1767)	mhd%vacuum%coord_sys%g_23 (matflt_type) (7.9.3.1.12)
g_33 (1767)	mhd%vacuum%coord_sys%g_33 (matflt_type) (7.9.3.1.12)
position (1767)	mhd%vacuum%coord_sys%position (rz2D) (7.9.3.1.261)
r (1935)	mhd%vacuum%coord_sys%position%r (matflt_type) (7.9.3.1.12)
z (1935)	mhd%vacuum%coord_sys%position%z (matflt_type) (7.9.3.1.12)
a_pert (1869)	mhd%vacuum%a_pert (mhd_vector) (7.9.3.1.196)
coord1 (1870)	mhd%vacuum%a_pert%coord1 (array3dflt_type) (7.9.3.1.6)
coord2 (1870)	mhd%vacuum%a_pert%coord2 (array3dflt_type) (7.9.3.1.6)
coord3 (1870)	mhd%vacuum%a_pert%coord3 (array3dflt_type) (7.9.3.1.6)
b_pert (1869)	mhd%vacuum%b_pert (mhd_vector) (7.9.3.1.196)
coord1 (1870)	mhd%vacuum%b_pert%coord1 (array3dflt_type) (7.9.3.1.6)
coord2 (1870)	mhd%vacuum%b_pert%coord2 (array3dflt_type) (7.9.3.1.6)
coord3 (1870)	mhd%vacuum%b_pert%coord3 (array3dflt_type) (7.9.3.1.6)
walls (1715)	mhd%walls (mhd_walls2d) (7.9.3.1.197)
ideal_wall (1871)	mhd%walls%ideal_wall (mhd_ideal_wall2d) (7.9.3.1.192)
walltype (1866)	mhd%walls%ideal_wall%walltype (integer) (7.9.3.1.3)
position (1866)	mhd%walls%ideal_wall%position (rz1D) (7.9.3.1.259)
r (1933)	mhd%walls%ideal_wall%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	mhd%walls%ideal_wall%position%z (vecflt_type) (7.9.3.1.14)
res_wall (1871)	mhd%walls%res_wall (mhd_res_wall2d) (7.9.3.1.194)
walltype (1868)	mhd%walls%res_wall%walltype (integer) (7.9.3.1.3)
delta (1868)	mhd%walls%res_wall%delta (float) (7.9.3.1.2)
eta (1868)	mhd%walls%res_wall%eta (float) (7.9.3.1.2)
position (1868)	mhd%walls%res_wall%position (rz1D) (7.9.3.1.259)
r (1933)	mhd%walls%res_wall%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	mhd%walls%res_wall%position%z (vecflt_type) (7.9.3.1.14)
time (1715)	mhd%time (float) (7.9.3.1.2)
codeparam (1715)	mhd%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	mhd%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	mhd%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	mhd%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	mhd%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	mhd%codeparam%output_flag (integer) (7.9.3.1.3)

7.9.3.2.24 msediag

datainfo (1716)	msediag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	msediag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	msediag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	msediag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	msediag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	msediag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	msediag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	msediag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	msediag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	msediag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	msediag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	msediag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	msediag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	msediag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	msediag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	msediag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	msediag%datainfo%putinfo%rights (string) (7.9.3.1.4)
setup_mse (1716)	msediag%setup_mse (setup_mse) (7.9.3.1.296)
rzgamma (1970)	msediag%setup_mse%rzgamma (rzphidrdzdphi1D) (7.9.3.1.268)
r (1942)	msediag%setup_mse%rzgamma%r (vecflt_type) (7.9.3.1.14)

z (1942)	msediag%setup_mse%rzgamma%z (vecflt_type) (7.9.3.1.14)
phi (1942)	msediag%setup_mse%rzgamma%phi (vecflt_type) (7.9.3.1.14)
dr (1942)	msediag%setup_mse%rzgamma%dr (vecflt_type) (7.9.3.1.14)
dz (1942)	msediag%setup_mse%rzgamma%dz (vecflt_type) (7.9.3.1.14)
dphi (1942)	msediag%setup_mse%rzgamma%dphi (vecflt_type) (7.9.3.1.14)
geom_coef (1970)	msediag%setup_mse%geom_coef (matflt_type) (7.9.3.1.12)
measure (1716)	msediag%measure (exp1D) (7.9.3.1.160)
value (1834)	msediag%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	msediag%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	msediag%measure%relerror (vecflt_type) (7.9.3.1.14)
time (1716)	msediag%time (float) (7.9.3.1.2)

7.9.3.2.25 nbi

datainfo (1717)	nbi%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	nbi%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	nbi%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	nbi%datainfo%source (string) (7.9.3.1.4)
comment (1783)	nbi%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	nbi%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	nbi%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	nbi%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	nbi%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	nbi%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	nbi%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	nbi%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	nbi%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	nbi%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	nbi%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	nbi%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	nbi%datainfo%putinfo%rights (string) (7.9.3.1.4)
nbi_unit (1717)	nbi%nbi_unit (nbi_unit) (7.9.3.1.200)
inj_spec (1874)	nbi%nbi_unit%inj_spec (inj_spec) (7.9.3.1.174)
amn (1848)	nbi%nbi_unit%inj_spec%amn (float) (7.9.3.1.2)
zn (1848)	nbi%nbi_unit%inj_spec%zn (float) (7.9.3.1.2)
pow_unit (1874)	nbi%nbi_unit%pow_unit (exp0D) (7.9.3.1.159)
value (1833)	nbi%nbi_unit%pow_unit%value (float) (7.9.3.1.2)
abserror (1833)	nbi%nbi_unit%pow_unit%abserror (float) (7.9.3.1.2)
relerror (1833)	nbi%nbi_unit%pow_unit%relerror (float) (7.9.3.1.2)
inj_eng_unit (1874)	nbi%nbi_unit%inj_eng_unit (exp0D) (7.9.3.1.159)
value (1833)	nbi%nbi_unit%inj_eng_unit%value (float) (7.9.3.1.2)
abserror (1833)	nbi%nbi_unit%inj_eng_unit%abserror (float) (7.9.3.1.2)
relerror (1833)	nbi%nbi_unit%inj_eng_unit%relerror (float) (7.9.3.1.2)
beamcurrfrac (1874)	nbi%nbi_unit%beamcurrfrac (exp1D) (7.9.3.1.160)
value (1834)	nbi%nbi_unit%beamcurrfrac%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	nbi%nbi_unit%beamcurrfrac%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	nbi%nbi_unit%beamcurrfrac%relerror (vecflt_type) (7.9.3.1.14)
beampowrfrac (1874)	nbi%nbi_unit%beampowrfrac (exp1D) (7.9.3.1.160)
value (1834)	nbi%nbi_unit%beampowrfrac%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	nbi%nbi_unit%beampowrfrac%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	nbi%nbi_unit%beampowrfrac%relerror (vecflt_type) (7.9.3.1.14)
setup_inject (1874)	nbi%nbi_unit%setup_inject (setup_inject) (7.9.3.1.294)
position (1968)	nbi%nbi_unit%setup_inject%position (rzphi0D) (7.9.3.1.263)
r (1937)	nbi%nbi_unit%setup_inject%position%r (float) (7.9.3.1.2)
z (1937)	nbi%nbi_unit%setup_inject%position%z (float) (7.9.3.1.2)
phi (1937)	nbi%nbi_unit%setup_inject%position%phi (float) (7.9.3.1.2)
tang_rad (1968)	nbi%nbi_unit%setup_inject%tang_rad (float) (7.9.3.1.2)
angle (1968)	nbi%nbi_unit%setup_inject%angle (float) (7.9.3.1.2)
direction (1968)	nbi%nbi_unit%setup_inject%direction (integer) (7.9.3.1.3)
focal_len_hz (1968)	nbi%nbi_unit%setup_inject%focal_len_hz (float) (7.9.3.1.2)
focal_len_vc (1968)	nbi%nbi_unit%setup_inject%focal_len_vc (float) (7.9.3.1.2)

divergence (1968)	nbi%nbi_unit%setup_inject%divergence (divergence) (7.9.3.1.141)
frac_divcomp (1815)	nbi%nbi_unit%setup_inject%divergence%frac_divcomp (vecflt_type) (7.9.3.1.14)
div_vert (1815)	nbi%nbi_unit%setup_inject%divergence%div_vert (vecflt_type) (7.9.3.1.14)
div_horiz (1815)	nbi%nbi_unit%setup_inject%divergence%div_horiz (vecflt_type) (7.9.3.1.14)
beamlets (1968)	nbi%nbi_unit%setup_inject%beamlets (beamlets) (7.9.3.1.66)
position (1740)	nbi%nbi_unit%setup_inject%beamlets%position (rzphi1D) (7.9.3.1.264)
r (1938)	nbi%nbi_unit%setup_inject%beamlets%position%r (vecflt_type) (7.9.3.1.14)
z (1938)	nbi%nbi_unit%setup_inject%beamlets%position%z (vecflt_type) (7.9.3.1.14)
phi (1938)	nbi%nbi_unit%setup_inject%beamlets%position%phi (vecflt_type) (7.9.3.1.14)
tang_rad_blt (1740)	nbi%nbi_unit%setup_inject%beamlets%tang_rad_blt (vecflt_type) (7.9.3.1.14)
angle_blt (1740)	nbi%nbi_unit%setup_inject%beamlets%angle_blt (vecflt_type) (7.9.3.1.14)
pow_frc_blt (1740)	nbi%nbi_unit%setup_inject%beamlets%pow_frc_blt (vecflt_type) (7.9.3.1.14)
codeparam (1874)	nbi%nbi_unit%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	nbi%nbi_unit%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	nbi%nbi_unit%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	nbi%nbi_unit%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	nbi%nbi_unit%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	nbi%nbi_unit%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1717)	nbi%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	nbi%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	nbi%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	nbi%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	nbi%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	nbi%codeparam%output_flag (integer) (7.9.3.1.3)
time (1717)	nbi%time (float) (7.9.3.1.2)

7.9.3.2.26 neoclassic

datainfo (1718)	neoclassic%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	neoclassic%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	neoclassic%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	neoclassic%datainfo%source (string) (7.9.3.1.4)
comment (1783)	neoclassic%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	neoclassic%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	neoclassic%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	neoclassic%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	neoclassic%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	neoclassic%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	neoclassic%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	neoclassic%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	neoclassic%datainfo%putinfo%rights (string) (7.9.3.1.4)
rho_tor_norm (1718)	neoclassic%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1718)	neoclassic%rho_tor (vecflt_type) (7.9.3.1.14)
composition (1718)	neoclassic%composition (composition) (7.9.3.1.91)
amn (1765)	neoclassic%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	neoclassic%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	neoclassic%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	neoclassic%composition%imp_flag (vecint_type) (7.9.3.1.15)
ni_neo (1718)	neoclassic%ni_neo (transcoefion) (7.9.3.1.325)
diff_eff (1999)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.3.1.12)
vconv_eff (1999)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.3.1.12)
exchange (1999)	neoclassic%ni_neo%exchange (matflt_type) (7.9.3.1.12)
qgi (1999)	neoclassic%ni_neo%qgi (matflt_type) (7.9.3.1.12)
flux (1999)	neoclassic%ni_neo%flux (matflt_type) (7.9.3.1.12)
off_diagonal (1999)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.3.1.206)
d_ni (1880)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.3.1.6)
d_ti (1880)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.3.1.6)

d_ti (1879)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.3.1.12)
d_ne (1879)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.3.1.14)
d_te (1879)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.3.1.14)
d_epar (1879)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.3.1.14)
d_mtor (1879)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.3.1.14)
flag (1997)	neoclassic%mtor_neo%flag (integer) (7.9.3.1.3)
sigma (1718)	neoclassic%sigma (vecflt_type) (7.9.3.1.14)
jboot (1718)	neoclassic%jboot (vecflt_type) (7.9.3.1.14)
er (1718)	neoclassic%er (vecflt_type) (7.9.3.1.14)
vpol (1718)	neoclassic%vpol (matflt_type) (7.9.3.1.12)
fext (1718)	neoclassic%fext (array3dflt_type) (7.9.3.1.6)
jext (1718)	neoclassic%jext (vecflt_type) (7.9.3.1.14)
time (1718)	neoclassic%time (float) (7.9.3.1.2)
codeparam (1718)	neoclassic%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	neoclassic%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	neoclassic%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	neoclassic%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	neoclassic%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	neoclassic%codeparam%output_flag (integer) (7.9.3.1.3)

7.9.3.2.27 orbit

datainfo (1719)	orbit%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	orbit%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	orbit%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	orbit%datainfo%source (string) (7.9.3.1.4)
comment (1783)	orbit%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	orbit%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	orbit%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	orbit%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	orbit%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	orbit%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	orbit%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	orbit%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	orbit%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	orbit%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	orbit%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	orbit%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	orbit%datainfo%putinfo%rights (string) (7.9.3.1.4)
orbitt_id (1719)	orbit%orbitt_id (orbitt_id) (7.9.3.1.211)
amn (1885)	orbit%orbitt_id%amn (float) (7.9.3.1.2)
zion (1885)	orbit%orbitt_id%zion (float) (7.9.3.1.2)
energy (1885)	orbit%orbitt_id%energy (vecflt_type) (7.9.3.1.14)
magn_mom (1885)	orbit%orbitt_id%magn_mom (vecflt_type) (7.9.3.1.14)
p_phi (1885)	orbit%orbitt_id%p_phi (vecflt_type) (7.9.3.1.14)
sigma (1885)	orbit%orbitt_id%sigma (vecint_type) (7.9.3.1.15)
orb_trace (1719)	orbit%orb_trace (orb_trace) (7.9.3.1.209)
time_orb (1883)	orbit%orb_trace%time_orb (matflt_type) (7.9.3.1.12)
ntorb (1883)	orbit%orb_trace%ntorb (vecint_type) (7.9.3.1.15)
r (1883)	orbit%orb_trace%r (matflt_type) (7.9.3.1.12)
z (1883)	orbit%orb_trace%z (matflt_type) (7.9.3.1.12)
psi (1883)	orbit%orb_trace%psi (matflt_type) (7.9.3.1.12)
theta_b (1883)	orbit%orb_trace%theta_b (matflt_type) (7.9.3.1.12)
v_parallel (1883)	orbit%orb_trace%v_parallel (matflt_type) (7.9.3.1.12)
v_perp (1883)	orbit%orb_trace%v_perp (matflt_type) (7.9.3.1.12)
orb_glob_dat (1719)	orbit%orb_glob_dat (orb_glob_dat) (7.9.3.1.208)
orbit_type (1882)	orbit%orb_glob_dat%orbit_type (vecint_type) (7.9.3.1.15)
omega_b (1882)	orbit%orb_glob_dat%omega_b (vecflt_type) (7.9.3.1.14)
omega_phi (1882)	orbit%orb_glob_dat%omega_phi (vecflt_type) (7.9.3.1.14)
omega_c_av (1882)	orbit%orb_glob_dat%omega_c_av (vecflt_type) (7.9.3.1.14)
special_pos (1882)	orbit%orb_glob_dat%special_pos (special_pos) (7.9.3.1.306)

midplane (1980)	orbit%orb_glob_dat%special_pos%midplane (midplane) (7.9.3.1.198)
outer (1872)	orbit%orb_glob_dat%special_pos%midplane%outer (orbit_pos) (7.9.3.1.210)
r (1884)	orbit%orb_glob_dat%special_pos%midplane%outer%r (vecflt_type) (7.9.3.1.14)
z (1884)	orbit%orb_glob_dat%special_pos%midplane%outer%z (vecflt_type) (7.9.3.1.14)
psi (1884)	orbit%orb_glob_dat%special_pos%midplane%outer%psi (vecflt_type) (7.9.3.1.14)
theta_b (1884)	orbit%orb_glob_dat%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.3.1.14)
inner (1872)	orbit%orb_glob_dat%special_pos%midplane%inner (orbit_pos) (7.9.3.1.210)
r (1884)	orbit%orb_glob_dat%special_pos%midplane%inner%r (vecflt_type) (7.9.3.1.14)
z (1884)	orbit%orb_glob_dat%special_pos%midplane%inner%z (vecflt_type) (7.9.3.1.14)
psi (1884)	orbit%orb_glob_dat%special_pos%midplane%inner%psi (vecflt_type) (7.9.3.1.14)
theta_b (1884)	orbit%orb_glob_dat%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.3.1.14)
turning_pts (1980)	orbit%orb_glob_dat%special_pos%turning_pts (turning_pts) (7.9.3.1.340)
upper (2014)	orbit%orb_glob_dat%special_pos%turning_pts%upper (orbit_pos) (7.9.3.1.210)
r (1884)	orbit%orb_glob_dat%special_pos%turning_pts%upper%r (vecflt_type) (7.9.3.1.14)
z (1884)	orbit%orb_glob_dat%special_pos%turning_pts%upper%z (vecflt_type) (7.9.3.1.14)
psi (1884)	orbit%orb_glob_dat%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.3.1.14)
theta_b (1884)	orbit%orb_glob_dat%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.3.1.14)
lower (2014)	orbit%orb_glob_dat%special_pos%turning_pts%lower (orbit_pos) (7.9.3.1.210)
r (1884)	orbit%orb_glob_dat%special_pos%turning_pts%lower%r (vecflt_type) (7.9.3.1.14)
z (1884)	orbit%orb_glob_dat%special_pos%turning_pts%lower%z (vecflt_type) (7.9.3.1.14)
psi (1884)	orbit%orb_glob_dat%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.3.1.14)
theta_b (1884)	orbit%orb_glob_dat%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.3.1.14)
codeparam (1719)	orbit%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	orbit%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	orbit%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	orbit%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	orbit%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	orbit%codeparam%output_flag (integer) (7.9.3.1.3)
time (1719)	orbit%time (float) (7.9.3.1.2)

7.9.3.2.28 pfsystems

datainfo (1720)	pfsystems%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	pfsystems%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	pfsystems%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	pfsystems%datainfo%source (string) (7.9.3.1.4)
comment (1783)	pfsystems%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	pfsystems%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	pfsystems%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	pfsystems%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	pfsystems%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	pfsystems%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	pfsystems%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	pfsystems%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	pfsystems%datainfo%putinfo%rights (string) (7.9.3.1.4)
pfcoils (1720)	pfsystems%pfcoils (pfcoils) (7.9.3.1.215)
desc_pfcoils (1889)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.3.1.112)
name (1786)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.3.1.16)
id (1786)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.3.1.16)
res (1786)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.3.1.14)
emax (1786)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.3.1.14)
nelement (1786)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.3.1.15)
pfelement (1786)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.3.1.216)
name (1890)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.3.1.16)
id (1890)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.3.1.16)
turnsign (1890)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.3.1.12)
area (1890)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.3.1.12)

pfgeometry (1890)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.3.1.217)
type (1891)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.3.1.13)
npoints (1891)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.3.1.13)
rzcoordinate (1891)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.3.1.262)
r (1936)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.3.1.6)
z (1936)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.3.1.6)
rzdrdz (1891)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.3.1.6)
coilcurrent (1889)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.3.1.160)
value (1834)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.3.1.14)
coilvoltage (1889)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.3.1.160)
value (1834)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.3.1.14)
pfpassive (1720)	pfsystems%pfpassive (pfpassive) (7.9.3.1.219)
area (1893)	pfsystems%pfpassive%area (vecflt_type) (7.9.3.1.14)
res (1893)	pfsystems%pfpassive%res (vecflt_type) (7.9.3.1.14)
pfpageometry (1893)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.3.1.218)
type (1892)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.3.1.15)
npoints (1892)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.3.1.15)
rzcoordinate (1892)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.3.1.261)
r (1935)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.3.1.12)
z (1935)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.3.1.12)
rzdrdz (1892)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.3.1.12)
pfcircuits (1720)	pfsystems%pfcircuits (pfcircuits) (7.9.3.1.214)
name (1888)	pfsystems%pfcircuits%name (vecstring_type) (7.9.3.1.16)
id (1888)	pfsystems%pfcircuits%id (vecstring_type) (7.9.3.1.16)
type (1888)	pfsystems%pfcircuits%type (vecstring_type) (7.9.3.1.16)
nnodes (1888)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.3.1.15)
connections (1888)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.3.1.7)
pfsupplies (1720)	pfsystems%pfsupplies (pfsupplies) (7.9.3.1.220)
desc_supply (1894)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.3.1.113)
name (1787)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.3.1.16)
id (1787)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.3.1.16)
type (1787)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.3.1.16)
delay (1787)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.3.1.14)
filter (1787)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.3.1.162)
num (1836)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.3.1.12)
den (1836)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.3.1.12)
imin (1787)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.3.1.14)
imax (1787)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.3.1.14)
res (1787)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.3.1.14)
umin (1787)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.3.1.14)
umax (1787)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.3.1.14)
emax (1787)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.3.1.14)
voltage (1894)	pfsystems%pfsupplies%voltage (exp1D) (7.9.3.1.160)
value (1834)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.3.1.14)
current (1894)	pfsystems%pfsupplies%current (exp1D) (7.9.3.1.160)
value (1834)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.3.1.14)
time (1720)	pfsystems%time (float) (7.9.3.1.2)

7.9.3.2.29 polardiag

datainfo (1860)	lineintegraldiag%datainfo (datainfo) (7.9.3.1.109)

dataprovider (1783)	lineintegraldiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	lineintegraldiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	lineintegraldiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	lineintegraldiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	lineintegraldiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	lineintegraldiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	lineintegraldiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
expression (1860)	lineintegraldiag%expression (string) (7.9.3.1.4)
setup_line (1860)	lineintegraldiag%setup_line (setup_line) (7.9.3.1.295)
pivot_point (1969)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.3.1.14)
horchordang1 (1969)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.3.1.14)
verchordang1 (1969)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.3.1.14)
width (1969)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.3.1.14)
second_point (1969)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.3.1.14)
horchordang2 (1969)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.3.1.14)
verchordang2 (1969)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.3.1.14)
third_point (1969)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.3.1.264)
r (1938)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.3.1.14)
z (1938)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.3.1.14)
phi (1938)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.3.1.14)
nchordpoints (1969)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.3.1.3)
measure (1860)	lineintegraldiag%measure (exp1D) (7.9.3.1.160)
value (1834)	lineintegraldiag%measure%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.3.1.14)
time (1860)	lineintegraldiag%time (float) (7.9.3.1.2)

7.9.3.2.30 reference

datainfo (1722)	reference%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	reference%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	reference%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	reference%datainfo%source (string) (7.9.3.1.4)
comment (1783)	reference%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	reference%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	reference%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	reference%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	reference%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	reference%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	reference%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	reference%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	reference%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	reference%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	reference%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	reference%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	reference%datainfo%putinfo%rights (string) (7.9.3.1.4)

non_timed (1722)	reference%non_timed (ref_nt) (7.9.3.1.236)
zerod_real (1910)	reference%non_timed%zerod_real (ref_nt_0dr) (7.9.3.1.239)
ref1 (1913)	reference%non_timed%zerod_real%ref1 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref1%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref1%description (string) (7.9.3.1.4)
ref2 (1913)	reference%non_timed%zerod_real%ref2 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref2%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref2%description (string) (7.9.3.1.4)
ref3 (1913)	reference%non_timed%zerod_real%ref3 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref3%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref3%description (string) (7.9.3.1.4)
ref4 (1913)	reference%non_timed%zerod_real%ref4 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref4%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref4%description (string) (7.9.3.1.4)
ref5 (1913)	reference%non_timed%zerod_real%ref5 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref5%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref5%description (string) (7.9.3.1.4)
ref6 (1913)	reference%non_timed%zerod_real%ref6 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref6%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref6%description (string) (7.9.3.1.4)
ref7 (1913)	reference%non_timed%zerod_real%ref7 (ref_nt_0dr_ref) (7.9.3.1.240)
value (1914)	reference%non_timed%zerod_real%ref7%value (float) (7.9.3.1.2)
description (1914)	reference%non_timed%zerod_real%ref7%description (string) (7.9.3.1.4)
zerod_int (1910)	reference%non_timed%zerod_int (ref_nt_0di) (7.9.3.1.237)
ref1 (1911)	reference%non_timed%zerod_int%ref1 (ref_nt_0di_ref) (7.9.3.1.238)
value (1912)	reference%non_timed%zerod_int%ref1%value (integer) (7.9.3.1.3)
description (1912)	reference%non_timed%zerod_int%ref1%description (string) (7.9.3.1.4)
ref2 (1911)	reference%non_timed%zerod_int%ref2 (ref_nt_0di_ref) (7.9.3.1.238)
value (1912)	reference%non_timed%zerod_int%ref2%value (integer) (7.9.3.1.3)
description (1912)	reference%non_timed%zerod_int%ref2%description (string) (7.9.3.1.4)
ref3 (1911)	reference%non_timed%zerod_int%ref3 (ref_nt_0di_ref) (7.9.3.1.238)
value (1912)	reference%non_timed%zerod_int%ref3%value (integer) (7.9.3.1.3)
description (1912)	reference%non_timed%zerod_int%ref3%description (string) (7.9.3.1.4)
ref4 (1911)	reference%non_timed%zerod_int%ref4 (ref_nt_0di_ref) (7.9.3.1.238)
value (1912)	reference%non_timed%zerod_int%ref4%value (integer) (7.9.3.1.3)
description (1912)	reference%non_timed%zerod_int%ref4%description (string) (7.9.3.1.4)
zerod_string (1910)	reference%non_timed%zerod_string (ref_nt_0ds) (7.9.3.1.241)
ref1 (1915)	reference%non_timed%zerod_string%ref1 (ref_nt_0ds_ref) (7.9.3.1.242)
value (1916)	reference%non_timed%zerod_string%ref1%value (string) (7.9.3.1.4)
description (1916)	reference%non_timed%zerod_string%ref1%description (string) (7.9.3.1.4)
ref2 (1915)	reference%non_timed%zerod_string%ref2 (ref_nt_0ds_ref) (7.9.3.1.242)
value (1916)	reference%non_timed%zerod_string%ref2%value (string) (7.9.3.1.4)
description (1916)	reference%non_timed%zerod_string%ref2%description (string) (7.9.3.1.4)
oned_real (1910)	reference%non_timed%oned_real (ref_nt_1dr) (7.9.3.1.245)
ref1 (1919)	reference%non_timed%oned_real%ref1 (ref_nt_1dr_ref) (7.9.3.1.246)
value (1920)	reference%non_timed%oned_real%ref1%value (vecflt_type) (7.9.3.1.14)
description (1920)	reference%non_timed%oned_real%ref1%description (string) (7.9.3.1.4)
ref2 (1919)	reference%non_timed%oned_real%ref2 (ref_nt_1dr_ref) (7.9.3.1.246)
value (1920)	reference%non_timed%oned_real%ref2%value (vecflt_type) (7.9.3.1.14)
description (1920)	reference%non_timed%oned_real%ref2%description (string) (7.9.3.1.4)
ref3 (1919)	reference%non_timed%oned_real%ref3 (ref_nt_1dr_ref) (7.9.3.1.246)
value (1920)	reference%non_timed%oned_real%ref3%value (vecflt_type) (7.9.3.1.14)
description (1920)	reference%non_timed%oned_real%ref3%description (string) (7.9.3.1.4)
ref4 (1919)	reference%non_timed%oned_real%ref4 (ref_nt_1dr_ref) (7.9.3.1.246)
value (1920)	reference%non_timed%oned_real%ref4%value (vecflt_type) (7.9.3.1.14)
description (1920)	reference%non_timed%oned_real%ref4%description (string) (7.9.3.1.4)
ref5 (1919)	reference%non_timed%oned_real%ref5 (ref_nt_1dr_ref) (7.9.3.1.246)
value (1920)	reference%non_timed%oned_real%ref5%value (vecflt_type) (7.9.3.1.14)
description (1920)	reference%non_timed%oned_real%ref5%description (string) (7.9.3.1.4)
oned_int (1910)	reference%non_timed%oned_int (ref_nt_1di) (7.9.3.1.243)
ref1 (1917)	reference%non_timed%oned_int%ref1 (ref_nt_1di_ref) (7.9.3.1.244)

value (1918)	reference%non_timed%oned_int%ref1%value (vecint_type) (7.9.3.1.15)
description (1918)	reference%non_timed%oned_int%ref1%description (string) (7.9.3.1.4)
ref2 (1917)	reference%non_timed%oned_int%ref2 (ref_nt_1di_ref) (7.9.3.1.244)
value (1918)	reference%non_timed%oned_int%ref2%value (vecint_type) (7.9.3.1.15)
description (1918)	reference%non_timed%oned_int%ref2%description (string) (7.9.3.1.4)
ref3 (1917)	reference%non_timed%oned_int%ref3 (ref_nt_1di_ref) (7.9.3.1.244)
value (1918)	reference%non_timed%oned_int%ref3%value (vecint_type) (7.9.3.1.15)
description (1918)	reference%non_timed%oned_int%ref3%description (string) (7.9.3.1.4)
ref4 (1917)	reference%non_timed%oned_int%ref4 (ref_nt_1di_ref) (7.9.3.1.244)
value (1918)	reference%non_timed%oned_int%ref4%value (vecint_type) (7.9.3.1.15)
description (1918)	reference%non_timed%oned_int%ref4%description (string) (7.9.3.1.4)
timed (1722)	reference%timed (ref_t) (7.9.3.1.247)
zerod_real (1921)	reference%timed%zerod_real (ref_t_0dr) (7.9.3.1.250)
ref1 (1924)	reference%timed%zerod_real%ref1 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref1%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref1%description (string) (7.9.3.1.4)
ref2 (1924)	reference%timed%zerod_real%ref2 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref2%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref2%description (string) (7.9.3.1.4)
ref3 (1924)	reference%timed%zerod_real%ref3 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref3%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref3%description (string) (7.9.3.1.4)
ref4 (1924)	reference%timed%zerod_real%ref4 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref4%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref4%description (string) (7.9.3.1.4)
ref5 (1924)	reference%timed%zerod_real%ref5 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref5%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref5%description (string) (7.9.3.1.4)
ref6 (1924)	reference%timed%zerod_real%ref6 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref6%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref6%description (string) (7.9.3.1.4)
ref7 (1924)	reference%timed%zerod_real%ref7 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref7%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref7%description (string) (7.9.3.1.4)
ref8 (1924)	reference%timed%zerod_real%ref8 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref8%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref8%description (string) (7.9.3.1.4)
ref9 (1924)	reference%timed%zerod_real%ref9 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref9%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref9%description (string) (7.9.3.1.4)
ref10 (1924)	reference%timed%zerod_real%ref10 (ref_t_0dr_ref) (7.9.3.1.251)
value (1925)	reference%timed%zerod_real%ref10%value (float) (7.9.3.1.2)
description (1925)	reference%timed%zerod_real%ref10%description (string) (7.9.3.1.4)
zerod_int (1921)	reference%timed%zerod_int (ref_t_0di) (7.9.3.1.248)
ref1 (1922)	reference%timed%zerod_int%ref1 (ref_t_0di_ref) (7.9.3.1.249)
value (1923)	reference%timed%zerod_int%ref1%value (integer) (7.9.3.1.3)
description (1923)	reference%timed%zerod_int%ref1%description (string) (7.9.3.1.4)
ref2 (1922)	reference%timed%zerod_int%ref2 (ref_t_0di_ref) (7.9.3.1.249)
value (1923)	reference%timed%zerod_int%ref2%value (integer) (7.9.3.1.3)
description (1923)	reference%timed%zerod_int%ref2%description (string) (7.9.3.1.4)
ref3 (1922)	reference%timed%zerod_int%ref3 (ref_t_0di_ref) (7.9.3.1.249)
value (1923)	reference%timed%zerod_int%ref3%value (integer) (7.9.3.1.3)
description (1923)	reference%timed%zerod_int%ref3%description (string) (7.9.3.1.4)
ref4 (1922)	reference%timed%zerod_int%ref4 (ref_t_0di_ref) (7.9.3.1.249)
value (1923)	reference%timed%zerod_int%ref4%value (integer) (7.9.3.1.3)
description (1923)	reference%timed%zerod_int%ref4%description (string) (7.9.3.1.4)
oned_real (1921)	reference%timed%oned_real (ref_t_1dr) (7.9.3.1.254)
ref1 (1928)	reference%timed%oned_real%ref1 (ref_t_1dr_ref) (7.9.3.1.255)
value (1929)	reference%timed%oned_real%ref1%value (vecflt_type) (7.9.3.1.14)
description (1929)	reference%timed%oned_real%ref1%description (string) (7.9.3.1.4)
ref2 (1928)	reference%timed%oned_real%ref2 (ref_t_1dr_ref) (7.9.3.1.255)

value (1929)	reference%timed%oned_real%ref2%value (vecflt_type) (7.9.3.1.14)
description (1929)	reference%timed%oned_real%ref2%description (string) (7.9.3.1.4)
ref3 (1928)	reference%timed%oned_real%ref3 (ref_t_1dr_ref) (7.9.3.1.255)
value (1929)	reference%timed%oned_real%ref3%value (vecflt_type) (7.9.3.1.14)
description (1929)	reference%timed%oned_real%ref3%description (string) (7.9.3.1.4)
ref4 (1928)	reference%timed%oned_real%ref4 (ref_t_1dr_ref) (7.9.3.1.255)
value (1929)	reference%timed%oned_real%ref4%value (vecflt_type) (7.9.3.1.14)
description (1929)	reference%timed%oned_real%ref4%description (string) (7.9.3.1.4)
ref5 (1928)	reference%timed%oned_real%ref5 (ref_t_1dr_ref) (7.9.3.1.255)
value (1929)	reference%timed%oned_real%ref5%value (vecflt_type) (7.9.3.1.14)
description (1929)	reference%timed%oned_real%ref5%description (string) (7.9.3.1.4)
oned_int (1921)	reference%timed%oned_int (ref_t_1di) (7.9.3.1.252)
ref1 (1926)	reference%timed%oned_int%ref1 (ref_t_1di_ref) (7.9.3.1.253)
value (1927)	reference%timed%oned_int%ref1%value (vecint_type) (7.9.3.1.15)
description (1927)	reference%timed%oned_int%ref1%description (string) (7.9.3.1.4)
ref2 (1926)	reference%timed%oned_int%ref2 (ref_t_1di_ref) (7.9.3.1.253)
value (1927)	reference%timed%oned_int%ref2%value (vecint_type) (7.9.3.1.15)
description (1927)	reference%timed%oned_int%ref2%description (string) (7.9.3.1.4)
ref3 (1926)	reference%timed%oned_int%ref3 (ref_t_1di_ref) (7.9.3.1.253)
value (1927)	reference%timed%oned_int%ref3%value (vecint_type) (7.9.3.1.15)
description (1927)	reference%timed%oned_int%ref3%description (string) (7.9.3.1.4)
ref4 (1926)	reference%timed%oned_int%ref4 (ref_t_1di_ref) (7.9.3.1.253)
value (1927)	reference%timed%oned_int%ref4%value (vecint_type) (7.9.3.1.15)
description (1927)	reference%timed%oned_int%ref4%description (string) (7.9.3.1.4)
time (1722)	reference%time (float) (7.9.3.1.2)

7.9.3.2.31 sawteeth

datainfo (1723)	sawteeth%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	sawteeth%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	sawteeth%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	sawteeth%datainfo%source (string) (7.9.3.1.4)
comment (1783)	sawteeth%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	sawteeth%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	sawteeth%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	sawteeth%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	sawteeth%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	sawteeth%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	sawteeth%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	sawteeth%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	sawteeth%datainfo%putinfo%rights (string) (7.9.3.1.4)
crash_trig (1723)	sawteeth%crash_trig (integer) (7.9.3.1.3)
composition (1723)	sawteeth%composition (composition) (7.9.3.1.91)
amn (1765)	sawteeth%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	sawteeth%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	sawteeth%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	sawteeth%composition%imp_flag (vecint_type) (7.9.3.1.15)
rho_tor_norm (1723)	sawteeth%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (1723)	sawteeth%rho_tor (vecflt_type) (7.9.3.1.14)
profiles1d (1723)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.3.1.270)
ne (1944)	sawteeth%profiles1d%ne (vecflt_type) (7.9.3.1.14)
ni (1944)	sawteeth%profiles1d%ni (matflt_type) (7.9.3.1.12)
te (1944)	sawteeth%profiles1d%te (vecflt_type) (7.9.3.1.14)
ti (1944)	sawteeth%profiles1d%ti (matflt_type) (7.9.3.1.12)
psi (1944)	sawteeth%profiles1d%psi (vecflt_type) (7.9.3.1.14)
phi (1944)	sawteeth%profiles1d%phi (vecflt_type) (7.9.3.1.14)
psistar (1944)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.3.1.14)

volume (1944)	sawteeth%profiles1d%volume (vecflt_type) (7.9.3.1.14)
q (1944)	sawteeth%profiles1d%q (vecflt_type) (7.9.3.1.14)
diags (1723)	sawteeth%diags (sawteeth_diags) (7.9.3.1.269)
shear1 (1943)	sawteeth%diags%shear1 (float) (7.9.3.1.2)
rhotorn_q1 (1943)	sawteeth%diags%rhotorn_q1 (float) (7.9.3.1.2)
rhotorn_inv (1943)	sawteeth%diags%rhotorn_inv (float) (7.9.3.1.2)
rhotorn_mix (1943)	sawteeth%diags%rhotorn_mix (float) (7.9.3.1.2)
codeparam (1723)	sawteeth%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	sawteeth%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	sawteeth%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	sawteeth%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	sawteeth%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	sawteeth%codeparam%output_flag (integer) (7.9.3.1.3)
time (1723)	sawteeth%time (float) (7.9.3.1.2)

7.9.3.2.32 scenario

datainfo (1724)	scenario%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	scenario%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	scenario%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	scenario%datainfo%source (string) (7.9.3.1.4)
comment (1783)	scenario%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	scenario%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	scenario%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	scenario%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	scenario%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	scenario%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	scenario%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	scenario%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	scenario%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	scenario%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	scenario%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	scenario%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	scenario%datainfo%putinfo%rights (string) (7.9.3.1.4)
centre (1724)	scenario%centre (scenario_centre) (7.9.3.1.271)
te0 (1945)	scenario%centre%te0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%te0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%te0%source (string) (7.9.3.1.4)
ti0 (1945)	scenario%centre%ti0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%ti0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%ti0%source (string) (7.9.3.1.4)
ne0 (1945)	scenario%centre%ne0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%ne0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%ne0%source (string) (7.9.3.1.4)
ni0 (1945)	scenario%centre%ni0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%ni0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%ni0%source (string) (7.9.3.1.4)
shift0 (1945)	scenario%centre%shift0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%shift0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%shift0%source (string) (7.9.3.1.4)
psi0 (1945)	scenario%centre%psi0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%psi0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%psi0%source (string) (7.9.3.1.4)
phi0 (1945)	scenario%centre%phi0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%phi0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%phi0%source (string) (7.9.3.1.4)
q0 (1945)	scenario%centre%q0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%q0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%q0%source (string) (7.9.3.1.4)
Rmag (1945)	scenario%centre%Rmag (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%Rmag%value (float) (7.9.3.1.2)

source (1962)	scenario%centre%Rmag%source (string) (7.9.3.1.4)
Zmag (1945)	scenario%centre%Zmag (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%Zmag%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%Zmag%source (string) (7.9.3.1.4)
vtor_0 (1945)	scenario%centre%vtor_0 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%centre%vtor_0%value (float) (7.9.3.1.2)
source (1962)	scenario%centre%vtor_0%source (string) (7.9.3.1.4)
composition (1724)	scenario%composition (scenario_composition) (7.9.3.1.272)
amn (1946)	scenario%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1946)	scenario%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1946)	scenario%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1946)	scenario%composition%imp_flag (vecint_type) (7.9.3.1.15)
rot_imp_flag (1946)	scenario%composition%rot_imp_flag (vecint_type) (7.9.3.1.15)
pellet_amn (1946)	scenario%composition%pellet_amn (vecflt_type) (7.9.3.1.14)
pellet_zn (1946)	scenario%composition%pellet_zn (vecflt_type) (7.9.3.1.14)
nbi_amn (1946)	scenario%composition%nbi_amn (vecflt_type) (7.9.3.1.14)
nbi_zn (1946)	scenario%composition%nbi_zn (vecflt_type) (7.9.3.1.14)
configs (1724)	scenario%configs (scenario_configuration) (7.9.3.1.273)
config (1947)	scenario%configs%config (scenario_int) (7.9.3.1.280)
value (1954)	scenario%configs%config%value (integer) (7.9.3.1.3)
source (1954)	scenario%configs%config%source (string) (7.9.3.1.4)
lmode_sc (1947)	scenario%configs%lmode_sc (string) (7.9.3.1.4)
hmode_sc (1947)	scenario%configs%hmode_sc (string) (7.9.3.1.4)
core_sc (1947)	scenario%configs%core_sc (string) (7.9.3.1.4)
pedestal_sc (1947)	scenario%configs%pedestal_sc (string) (7.9.3.1.4)
helium_sc (1947)	scenario%configs%helium_sc (string) (7.9.3.1.4)
impurity_sc (1947)	scenario%configs%impurity_sc (string) (7.9.3.1.4)
l2h_sc (1947)	scenario%configs%l2h_sc (string) (7.9.3.1.4)
tor_rot_sc (1947)	scenario%configs%tor_rot_sc (string) (7.9.3.1.4)
wall_mat (1947)	scenario%configs%wall_mat (string) (7.9.3.1.4)
evap_mat (1947)	scenario%configs%evap_mat (string) (7.9.3.1.4)
lim_mat (1947)	scenario%configs%lim_mat (string) (7.9.3.1.4)
div_mat (1947)	scenario%configs%div_mat (string) (7.9.3.1.4)
coordinate (1947)	scenario%configs%coordinate (string) (7.9.3.1.4)
ecrh_freq (1947)	scenario%configs%ecrh_freq (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%ecrh_freq%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%ecrh_freq%source (string) (7.9.3.1.4)
ecrh_loc (1947)	scenario%configs%ecrh_loc (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%ecrh_loc%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%ecrh_loc%source (string) (7.9.3.1.4)
ecrh_mode (1947)	scenario%configs%ecrh_mode (scenario_int) (7.9.3.1.280)
value (1954)	scenario%configs%ecrh_mode%value (integer) (7.9.3.1.3)
source (1954)	scenario%configs%ecrh_mode%source (string) (7.9.3.1.4)
ecrh_tor_ang (1947)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%ecrh_tor_ang%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%ecrh_tor_ang%source (string) (7.9.3.1.4)
ecrh_pol_ang (1947)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%ecrh_pol_ang%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%ecrh_pol_ang%source (string) (7.9.3.1.4)
ecrh_harm (1947)	scenario%configs%ecrh_harm (scenario_int) (7.9.3.1.280)
value (1954)	scenario%configs%ecrh_harm%value (integer) (7.9.3.1.3)
source (1954)	scenario%configs%ecrh_harm%source (string) (7.9.3.1.4)
enbi (1947)	scenario%configs%enbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%enbi%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%enbi%source (string) (7.9.3.1.4)
r_nbi (1947)	scenario%configs%r_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%r_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%r_nbi%source (string) (7.9.3.1.4)
grad_b_drift (1947)	scenario%configs%grad_b_drift (scenario_int) (7.9.3.1.280)
value (1954)	scenario%configs%grad_b_drift%value (integer) (7.9.3.1.3)
source (1954)	scenario%configs%grad_b_drift%source (string) (7.9.3.1.4)

icrh_freq (1947)	scenario%configs%icrh_freq (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%icrh_freq%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%icrh_freq%source (string) (7.9.3.1.4)
icrh_scheme (1947)	scenario%configs%icrh_scheme (string) (7.9.3.1.4)
icrh_phase (1947)	scenario%configs%icrh_phase (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%icrh_phase%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%icrh_phase%source (string) (7.9.3.1.4)
LH_freq (1947)	scenario%configs%LH_freq (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%LH_freq%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%LH_freq%source (string) (7.9.3.1.4)
LH_npar (1947)	scenario%configs%LH_npar (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%LH_npar%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%LH_npar%source (string) (7.9.3.1.4)
pellet_ang (1947)	scenario%configs%pellet_ang (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%pellet_ang%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%pellet_ang%source (string) (7.9.3.1.4)
pellet_v (1947)	scenario%configs%pellet_v (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%pellet_v%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%pellet_v%source (string) (7.9.3.1.4)
pellet_nba (1947)	scenario%configs%pellet_nba (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%configs%pellet_nba%value (float) (7.9.3.1.2)
source (1962)	scenario%configs%pellet_nba%source (string) (7.9.3.1.4)
confinement (1724)	scenario%confinement (scenario_confinement) (7.9.3.1.274)
tau_e (1948)	scenario%confinement%tau_e (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_e%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_e%source (string) (7.9.3.1.4)
tau_l_sc (1948)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_l_sc%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_l_sc%source (string) (7.9.3.1.4)
tau_h_sc (1948)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_h_sc%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_h_sc%source (string) (7.9.3.1.4)
tau_he (1948)	scenario%confinement%tau_he (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_he%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_he%source (string) (7.9.3.1.4)
tau_e_ee (1948)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_e_ee%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_e_ee%source (string) (7.9.3.1.4)
tau_e_ii (1948)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_e_ii%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_e_ii%source (string) (7.9.3.1.4)
tau_e_ei (1948)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_e_ei%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_e_ei%source (string) (7.9.3.1.4)
tau_cur_diff (1948)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_cur_diff%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_cur_diff%source (string) (7.9.3.1.4)
tau_i_rol (1948)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%confinement%tau_i_rol%value (float) (7.9.3.1.2)
source (1962)	scenario%confinement%tau_i_rol%source (string) (7.9.3.1.4)
currents (1724)	scenario%currents (scenario_currents) (7.9.3.1.275)
RR (1949)	scenario%currents%RR (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%RR%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%RR%source (string) (7.9.3.1.4)
i_align (1949)	scenario%currents%i_align (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_align%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_align%source (string) (7.9.3.1.4)
i_boot (1949)	scenario%currents%i_boot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_boot%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_boot%source (string) (7.9.3.1.4)
i_cd_tot (1949)	scenario%currents%i_cd_tot (scenario_ref) (7.9.3.1.288)

value (1962)	scenario%currents%i_cd_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_cd_tot%source (string) (7.9.3.1.4)
i_eccd (1949)	scenario%currents%i_eccd (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_eccd%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_eccd%source (string) (7.9.3.1.4)
i_fast_ion (1949)	scenario%currents%i_fast_ion (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_fast_ion%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_fast_ion%source (string) (7.9.3.1.4)
i_fwcd (1949)	scenario%currents%i_fwcd (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_fwcd%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_fwcd%source (string) (7.9.3.1.4)
i_lhcd (1949)	scenario%currents%i_lhcd (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_lhcd%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_lhcd%source (string) (7.9.3.1.4)
i_nbicd (1949)	scenario%currents%i_nbicd (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_nbicd%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_nbicd%source (string) (7.9.3.1.4)
i_ni_tot (1949)	scenario%currents%i_ni_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_ni_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_ni_tot%source (string) (7.9.3.1.4)
i_ohm (1949)	scenario%currents%i_ohm (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_ohm%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_ohm%source (string) (7.9.3.1.4)
i_par (1949)	scenario%currents%i_par (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_par%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_par%source (string) (7.9.3.1.4)
i_runaway (1949)	scenario%currents%i_runaway (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%i_runaway%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%i_runaway%source (string) (7.9.3.1.4)
v_loop (1949)	scenario%currents%v_loop (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%v_loop%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%v_loop%source (string) (7.9.3.1.4)
v_meas (1949)	scenario%currents%v_meas (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%currents%v_meas%value (float) (7.9.3.1.2)
source (1962)	scenario%currents%v_meas%source (string) (7.9.3.1.4)
edge (1724)	scenario%edge (scenario_edge) (7.9.3.1.276)
te_edge (1950)	scenario%edge%te_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%te_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%te_edge%source (string) (7.9.3.1.4)
ti_edge (1950)	scenario%edge%ti_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%ti_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%ti_edge%source (string) (7.9.3.1.4)
ne_edge (1950)	scenario%edge%ne_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%ne_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%ne_edge%source (string) (7.9.3.1.4)
ni_edge (1950)	scenario%edge%ni_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%ni_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%ni_edge%source (string) (7.9.3.1.4)
psi_edge (1950)	scenario%edge%psi_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%psi_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%psi_edge%source (string) (7.9.3.1.4)
phi_edge (1950)	scenario%edge%phi_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%phi_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%phi_edge%source (string) (7.9.3.1.4)
rho_edge (1950)	scenario%edge%rho_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%rho_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%rho_edge%source (string) (7.9.3.1.4)
drho_edge_dt (1950)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%drho_edge_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%drho_edge_dt%source (string) (7.9.3.1.4)
q_edge (1950)	scenario%edge%q_edge (scenario_ref) (7.9.3.1.288)

value (1962)	scenario%edge%q_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%q_edge%source (string) (7.9.3.1.4)
neutral_flux (1950)	scenario%edge%neutral_flux (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%neutral_flux%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%neutral_flux%source (string) (7.9.3.1.4)
phi_plasma (1950)	scenario%edge%phi_plasma (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%phi_plasma%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%phi_plasma%source (string) (7.9.3.1.4)
vtor_edge (1950)	scenario%edge%vtor_edge (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%edge%vtor_edge%value (float) (7.9.3.1.2)
source (1962)	scenario%edge%vtor_edge%source (string) (7.9.3.1.4)
energy (1724)	scenario%energy (scenario_energy) (7.9.3.1.277)
w_tot (1951)	scenario%energy%w_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%w_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%w_tot%source (string) (7.9.3.1.4)
w_b_pol (1951)	scenario%energy%w_b_pol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%w_b_pol%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%w_b_pol%source (string) (7.9.3.1.4)
w_dia (1951)	scenario%energy%w_dia (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%w_dia%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%w_dia%source (string) (7.9.3.1.4)
dwdia_dt (1951)	scenario%energy%dwdia_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%dwdia_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%dwdia_dt%source (string) (7.9.3.1.4)
w_b_tor_pla (1951)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%w_b_tor_pla%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%w_b_tor_pla%source (string) (7.9.3.1.4)
w_th (1951)	scenario%energy%w_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%w_th%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%w_th%source (string) (7.9.3.1.4)
dwtot_dt (1951)	scenario%energy%dwtot_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%dwtot_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%dwtot_dt%source (string) (7.9.3.1.4)
dwbpol_dt (1951)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%dwbpol_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%dwbpol_dt%source (string) (7.9.3.1.4)
dwbtorpla_dt (1951)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%dwbtorpla_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%dwbtorpla_dt%source (string) (7.9.3.1.4)
dwth_dt (1951)	scenario%energy%dwth_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%dwth_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%dwth_dt%source (string) (7.9.3.1.4)
esup_icrhtot (1951)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_icrhtot%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_icrhtot%source (string) (7.9.3.1.4)
esup_icrhper (1951)	scenario%energy%esup_icrhper (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_icrhper%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_icrhper%source (string) (7.9.3.1.4)
esup_nbitot (1951)	scenario%energy%esup_nbitot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_nbitot%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_nbitot%source (string) (7.9.3.1.4)
esup_nbiperp (1951)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_nbiperp%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_nbiperp%source (string) (7.9.3.1.4)
esup_lhcd (1951)	scenario%energy%esup_lhcd (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_lhcd%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_lhcd%source (string) (7.9.3.1.4)
esup_alpha (1951)	scenario%energy%esup_alpha (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%energy%esup_alpha%value (float) (7.9.3.1.2)
source (1962)	scenario%energy%esup_alpha%source (string) (7.9.3.1.4)
eqgeometry (1724)	scenario%eqgeometry (eqgeometry) (7.9.3.1.156)

source (1830)	scenario%eqgeometry%source (string) (7.9.3.1.4)
boundarytype (1830)	scenario%eqgeometry%boundarytype (integer) (7.9.3.1.3)
boundary (1830)	scenario%eqgeometry%boundary (rz1D_npoints) (7.9.3.1.260)
r (1934)	scenario%eqgeometry%boundary%r (vecflt_type) (7.9.3.1.14)
z (1934)	scenario%eqgeometry%boundary%z (vecflt_type) (7.9.3.1.14)
npoints (1934)	scenario%eqgeometry%boundary%npoints (integer) (7.9.3.1.3)
geom_axis (1830)	scenario%eqgeometry%geom_axis (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%geom_axis%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%geom_axis%z (float) (7.9.3.1.2)
a_minor (1830)	scenario%eqgeometry%a_minor (float) (7.9.3.1.2)
elongation (1830)	scenario%eqgeometry%elongation (float) (7.9.3.1.2)
tria_upper (1830)	scenario%eqgeometry%tria_upper (float) (7.9.3.1.2)
tria_lower (1830)	scenario%eqgeometry%tria_lower (float) (7.9.3.1.2)
xpts (1830)	scenario%eqgeometry%xpts (rz1D) (7.9.3.1.259)
r (1933)	scenario%eqgeometry%xpts%r (vecflt_type) (7.9.3.1.14)
z (1933)	scenario%eqgeometry%xpts%z (vecflt_type) (7.9.3.1.14)
left_low_st (1830)	scenario%eqgeometry%left_low_st (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%left_low_st%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%left_low_st%z (float) (7.9.3.1.2)
right_low_st (1830)	scenario%eqgeometry%right_low_st (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%right_low_st%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%right_low_st%z (float) (7.9.3.1.2)
left_up_st (1830)	scenario%eqgeometry%left_up_st (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%left_up_st%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%left_up_st%z (float) (7.9.3.1.2)
right_up_st (1830)	scenario%eqgeometry%right_up_st (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%right_up_st%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%right_up_st%z (float) (7.9.3.1.2)
active_limit (1830)	scenario%eqgeometry%active_limit (rz0D) (7.9.3.1.258)
r (1932)	scenario%eqgeometry%active_limit%r (float) (7.9.3.1.2)
z (1932)	scenario%eqgeometry%active_limit%z (float) (7.9.3.1.2)
global_param (1724)	scenario%global_param (scenario_global) (7.9.3.1.278)
ip (1952)	scenario%global_param%ip (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%ip%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%ip%source (string) (7.9.3.1.4)
dip_dt (1952)	scenario%global_param%dip_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%dip_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%dip_dt%source (string) (7.9.3.1.4)
beta_pol (1952)	scenario%global_param%beta_pol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_pol%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_pol%source (string) (7.9.3.1.4)
beta_tor (1952)	scenario%global_param%beta_tor (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_tor%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_tor%source (string) (7.9.3.1.4)
beta_normal (1952)	scenario%global_param%beta_normal (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_normal%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_normal%source (string) (7.9.3.1.4)
li (1952)	scenario%global_param%li (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%li%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%li%source (string) (7.9.3.1.4)
volume (1952)	scenario%global_param%volume (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%volume%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%volume%source (string) (7.9.3.1.4)
area_pol (1952)	scenario%global_param%area_pol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%area_pol%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%area_pol%source (string) (7.9.3.1.4)
area_ext (1952)	scenario%global_param%area_ext (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%area_ext%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%area_ext%source (string) (7.9.3.1.4)
len_sepa (1952)	scenario%global_param%len_sepa (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%len_sepa%value (float) (7.9.3.1.2)

source (1962)	scenario%global_param%len_sepa%source (string) (7.9.3.1.4)
beta_pol_th (1952)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_pol_th%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_pol_th%source (string) (7.9.3.1.4)
beta_tor_th (1952)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_tor_th%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_tor_th%source (string) (7.9.3.1.4)
beta_n_th (1952)	scenario%global_param%beta_n_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%beta_n_th%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%beta_n_th%source (string) (7.9.3.1.4)
disruption (1952)	scenario%global_param%disruption (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%disruption%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%disruption%source (string) (7.9.3.1.4)
mode_h (1952)	scenario%global_param%mode_h (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%mode_h%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%mode_h%source (string) (7.9.3.1.4)
s_alpha (1952)	scenario%global_param%s_alpha (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%global_param%s_alpha%value (float) (7.9.3.1.2)
source (1962)	scenario%global_param%s_alpha%source (string) (7.9.3.1.4)
heat_power (1724)	scenario%heat_power (scenario_heat_power) (7.9.3.1.279)
plh (1953)	scenario%heat_power%plh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%plh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%plh%source (string) (7.9.3.1.4)
pohmic (1953)	scenario%heat_power%pohmic (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pohmic%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pohmic%source (string) (7.9.3.1.4)
picrh (1953)	scenario%heat_power%picrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%picrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%picrh%source (string) (7.9.3.1.4)
pecrh (1953)	scenario%heat_power%pecrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pecrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pecrh%source (string) (7.9.3.1.4)
pnbi (1953)	scenario%heat_power%pnbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pnbi%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pnbi%source (string) (7.9.3.1.4)
pnbi_co_cur (1953)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.3.1.4)
pnbi_counter (1953)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pnbi_counter%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pnbi_counter%source (string) (7.9.3.1.4)
plh_th (1953)	scenario%heat_power%plh_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%plh_th%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%plh_th%source (string) (7.9.3.1.4)
picrh_th (1953)	scenario%heat_power%picrh_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%picrh_th%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%picrh_th%source (string) (7.9.3.1.4)
pecrh_th (1953)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pecrh_th%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pecrh_th%source (string) (7.9.3.1.4)
pnbi_th (1953)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pnbi_th%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pnbi_th%source (string) (7.9.3.1.4)
ploss_icrh (1953)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%ploss_icrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%ploss_icrh%source (string) (7.9.3.1.4)
ploss_nbi (1953)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%ploss_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%ploss_nbi%source (string) (7.9.3.1.4)
pbrem (1953)	scenario%heat_power%pbrem (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pbrem%value (float) (7.9.3.1.2)

source (1962)	scenario%heat_power%pbrem%source (string) (7.9.3.1.4)
pcyclo (1953)	scenario%heat_power%pcyclo (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pcyclo%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pcyclo%source (string) (7.9.3.1.4)
prad (1953)	scenario%heat_power%prad (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%prad%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%prad%source (string) (7.9.3.1.4)
pdd_fus (1953)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pdd_fus%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pdd_fus%source (string) (7.9.3.1.4)
pei (1953)	scenario%heat_power%pei (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pei%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pei%source (string) (7.9.3.1.4)
pel_tot (1953)	scenario%heat_power%pel_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pel_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pel_tot%source (string) (7.9.3.1.4)
pel_fus (1953)	scenario%heat_power%pel_fus (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pel_fus%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pel_fus%source (string) (7.9.3.1.4)
pel_icrh (1953)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pel_icrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pel_icrh%source (string) (7.9.3.1.4)
pel_nbi (1953)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pel_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pel_nbi%source (string) (7.9.3.1.4)
pfus_dt (1953)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pfus_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pfus_dt%source (string) (7.9.3.1.4)
ploss_fus (1953)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%ploss_fus%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%ploss_fus%source (string) (7.9.3.1.4)
pfus_nbi (1953)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pfus_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pfus_nbi%source (string) (7.9.3.1.4)
pfus_th (1953)	scenario%heat_power%pfus_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pfus_th%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pfus_th%source (string) (7.9.3.1.4)
padd_tot (1953)	scenario%heat_power%padd_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%padd_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%padd_tot%source (string) (7.9.3.1.4)
pion_tot (1953)	scenario%heat_power%pion_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pion_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pion_tot%source (string) (7.9.3.1.4)
pion_fus (1953)	scenario%heat_power%pion_fus (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pion_fus%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pion_fus%source (string) (7.9.3.1.4)
pion_icrh (1953)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pion_icrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pion_icrh%source (string) (7.9.3.1.4)
pion_nbi (1953)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pion_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pion_nbi%source (string) (7.9.3.1.4)
pioniz (1953)	scenario%heat_power%pioniz (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%pioniz%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%pioniz%source (string) (7.9.3.1.4)
ploss (1953)	scenario%heat_power%ploss (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%ploss%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%ploss%source (string) (7.9.3.1.4)
p_wth (1953)	scenario%heat_power%p_wth (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%p_wth%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%p_wth%source (string) (7.9.3.1.4)

p_w (1953)	scenario%heat_power%p_w (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%p_w%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%p_w%source (string) (7.9.3.1.4)
p_l2h_thr (1953)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%p_l2h_thr%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%p_l2h_thr%source (string) (7.9.3.1.4)
p_l2h_sc (1953)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%p_l2h_sc%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%p_l2h_sc%source (string) (7.9.3.1.4)
p_nbi_icrh (1953)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.3.1.2)
source (1962)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.3.1.4)
itb (1724)	scenario%itb (scenario_itb) (7.9.3.1.281)
q_min (1955)	scenario%itb%q_min (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%q_min%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%q_min%source (string) (7.9.3.1.4)
te_itb (1955)	scenario%itb%te_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%te_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%te_itb%source (string) (7.9.3.1.4)
ti_itb (1955)	scenario%itb%ti_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%ti_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%ti_itb%source (string) (7.9.3.1.4)
ne_itb (1955)	scenario%itb%ne_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%ne_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%ne_itb%source (string) (7.9.3.1.4)
ni_itb (1955)	scenario%itb%ni_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%ni_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%ni_itb%source (string) (7.9.3.1.4)
psi_itb (1955)	scenario%itb%psi_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%psi_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%psi_itb%source (string) (7.9.3.1.4)
phi_itb (1955)	scenario%itb%phi_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%phi_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%phi_itb%source (string) (7.9.3.1.4)
rho_itb (1955)	scenario%itb%rho_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%rho_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%rho_itb%source (string) (7.9.3.1.4)
h_itb (1955)	scenario%itb%h_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%h_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%h_itb%source (string) (7.9.3.1.4)
width_itb (1955)	scenario%itb%width_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%width_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%width_itb%source (string) (7.9.3.1.4)
vtor_itb (1955)	scenario%itb%vtor_itb (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%itb%vtor_itb%value (float) (7.9.3.1.2)
source (1962)	scenario%itb%vtor_itb%source (string) (7.9.3.1.4)
itb_type (1955)	scenario%itb%itb_type (scenario_int) (7.9.3.1.280)
value (1954)	scenario%itb%itb_type%value (integer) (7.9.3.1.3)
source (1954)	scenario%itb%itb_type%source (string) (7.9.3.1.4)
lim_div_wall (1724)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.3.1.282)
te_lim_div (1956)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.3.1.4)
ti_lim_div (1956)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.3.1.4)
ne_lim_div (1956)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.3.1.4)
ni_lim_div (1956)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.3.1.2)

source (1962)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.3.1.4)
p_peak_div (1956)	scenario%lim_div_wall%p_peak_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%p_peak_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%p_peak_div%source (string) (7.9.3.1.4)
surf_temp (1956)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%surf_temp%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%surf_temp%source (string) (7.9.3.1.4)
p_lim_div (1956)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.3.1.4)
p_rad_div (1956)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.3.1.4)
wall_temp (1956)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%wall_temp%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%wall_temp%source (string) (7.9.3.1.4)
wall_state (1956)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%wall_state%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%wall_state%source (string) (7.9.3.1.4)
detach_state (1956)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%detach_state%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%detach_state%source (string) (7.9.3.1.4)
pump_flux (1956)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%lim_div_wall%pump_flux%value (float) (7.9.3.1.2)
source (1962)	scenario%lim_div_wall%pump_flux%source (string) (7.9.3.1.4)
line_ave (1724)	scenario%line_ave (scenario_line_ave) (7.9.3.1.283)
ne_line (1957)	scenario%line_ave%ne_line (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%line_ave%ne_line%value (float) (7.9.3.1.2)
source (1962)	scenario%line_ave%ne_line%source (string) (7.9.3.1.4)
zeff_line (1957)	scenario%line_ave%zeff_line (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%line_ave%zeff_line%value (float) (7.9.3.1.2)
source (1962)	scenario%line_ave%zeff_line%source (string) (7.9.3.1.4)
ne_zeff_line (1957)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%line_ave%ne_zeff_line%value (float) (7.9.3.1.2)
source (1962)	scenario%line_ave%ne_zeff_line%source (string) (7.9.3.1.4)
dne_line_dt (1957)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%line_ave%dne_line_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%line_ave%dne_line_dt%source (string) (7.9.3.1.4)
neutron (1724)	scenario%neutron (scenario_neutron) (7.9.3.1.284)
ndd_tot (1958)	scenario%neutron%ndd_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndd_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndd_tot%source (string) (7.9.3.1.4)
ndd_th (1958)	scenario%neutron%ndd_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndd_th%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndd_th%source (string) (7.9.3.1.4)
ndd_nbi_th (1958)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndd_nbi_th%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndd_nbi_th%source (string) (7.9.3.1.4)
ndd_nbi_nbi (1958)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.3.1.4)
ndt_tot (1958)	scenario%neutron%ndt_tot (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndt_tot%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndt_tot%source (string) (7.9.3.1.4)
ndt_th (1958)	scenario%neutron%ndt_th (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%neutron%ndt_th%value (float) (7.9.3.1.2)
source (1962)	scenario%neutron%ndt_th%source (string) (7.9.3.1.4)
ninety_five (1724)	scenario%ninety_five (scenario_ninety_five) (7.9.3.1.285)
q_95 (1959)	scenario%ninety_five%q_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%q_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%q_95%source (string) (7.9.3.1.4)

elong_95 (1959)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%elong_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%elong_95%source (string) (7.9.3.1.4)
tria_95 (1959)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%tria_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%tria_95%source (string) (7.9.3.1.4)
tria_up_95 (1959)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%tria_up_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%tria_up_95%source (string) (7.9.3.1.4)
tria_lo_95 (1959)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%tria_lo_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%tria_lo_95%source (string) (7.9.3.1.4)
te_95 (1959)	scenario%ninety_five%te_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%te_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%te_95%source (string) (7.9.3.1.4)
ti_95 (1959)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%ti_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%ti_95%source (string) (7.9.3.1.4)
ne_95 (1959)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%ne_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%ne_95%source (string) (7.9.3.1.4)
ni_95 (1959)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%ni_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%ni_95%source (string) (7.9.3.1.4)
phi_95 (1959)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%phi_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%phi_95%source (string) (7.9.3.1.4)
rho_95 (1959)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%rho_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%rho_95%source (string) (7.9.3.1.4)
vtor_95 (1959)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%ninety_five%vtor_95%value (float) (7.9.3.1.2)
source (1962)	scenario%ninety_five%vtor_95%source (string) (7.9.3.1.4)
pedestal (1724)	scenario%pedestal (scenario_pedestal) (7.9.3.1.286)
te_ped (1960)	scenario%pedestal%te_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%te_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%te_ped%source (string) (7.9.3.1.4)
ti_ped (1960)	scenario%pedestal%ti_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%ti_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%ti_ped%source (string) (7.9.3.1.4)
ne_ped (1960)	scenario%pedestal%ne_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%ne_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%ne_ped%source (string) (7.9.3.1.4)
ni_ped (1960)	scenario%pedestal%ni_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%ni_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%ni_ped%source (string) (7.9.3.1.4)
psi_ped (1960)	scenario%pedestal%psi_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%psi_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%psi_ped%source (string) (7.9.3.1.4)
phi_ped (1960)	scenario%pedestal%phi_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%phi_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%phi_ped%source (string) (7.9.3.1.4)
rho_ped (1960)	scenario%pedestal%rho_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%rho_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%rho_ped%source (string) (7.9.3.1.4)
q_ped (1960)	scenario%pedestal%q_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%q_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%q_ped%source (string) (7.9.3.1.4)
pressure_ped (1960)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%pressure_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%pressure_ped%source (string) (7.9.3.1.4)

vtor_ped (1960)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%pedestal%vtor_ped%value (float) (7.9.3.1.2)
source (1962)	scenario%pedestal%vtor_ped%source (string) (7.9.3.1.4)
references (1724)	scenario%references (scenario_references) (7.9.3.1.289)
plh (1963)	scenario%references%plh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%plh%value (float) (7.9.3.1.2)
source (1962)	scenario%references%plh%source (string) (7.9.3.1.4)
picrh (1963)	scenario%references%picrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%picrh%value (float) (7.9.3.1.2)
source (1962)	scenario%references%picrh%source (string) (7.9.3.1.4)
pecrh (1963)	scenario%references%pecrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%pecrh%value (float) (7.9.3.1.2)
source (1962)	scenario%references%pecrh%source (string) (7.9.3.1.4)
pnbi (1963)	scenario%references%pnbi (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%pnbi%value (float) (7.9.3.1.2)
source (1962)	scenario%references%pnbi%source (string) (7.9.3.1.4)
ip (1963)	scenario%references%ip (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%ip%value (float) (7.9.3.1.2)
source (1962)	scenario%references%ip%source (string) (7.9.3.1.4)
bvac_r (1963)	scenario%references%bvac_r (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%bvac_r%value (float) (7.9.3.1.2)
source (1962)	scenario%references%bvac_r%source (string) (7.9.3.1.4)
zeffl (1963)	scenario%references%zeffl (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%zeffl%value (float) (7.9.3.1.2)
source (1962)	scenario%references%zeffl%source (string) (7.9.3.1.4)
nbar (1963)	scenario%references%nbar (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%nbar%value (float) (7.9.3.1.2)
source (1962)	scenario%references%nbar%source (string) (7.9.3.1.4)
xecrh (1963)	scenario%references%xecrh (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%xecrh%value (float) (7.9.3.1.2)
source (1962)	scenario%references%xecrh%source (string) (7.9.3.1.4)
pol_flux (1963)	scenario%references%pol_flux (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%pol_flux%value (float) (7.9.3.1.2)
source (1962)	scenario%references%pol_flux%source (string) (7.9.3.1.4)
enhancement (1963)	scenario%references%enhancement (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%enhancement%value (float) (7.9.3.1.2)
source (1962)	scenario%references%enhancement%source (string) (7.9.3.1.4)
isotopic (1963)	scenario%references%isotopic (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%isotopic%value (float) (7.9.3.1.2)
source (1962)	scenario%references%isotopic%source (string) (7.9.3.1.4)
nbi_td_ratio (1963)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%nbi_td_ratio%value (float) (7.9.3.1.2)
source (1962)	scenario%references%nbi_td_ratio%source (string) (7.9.3.1.4)
gas_puff (1963)	scenario%references%gas_puff (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%references%gas_puff%value (float) (7.9.3.1.2)
source (1962)	scenario%references%gas_puff%source (string) (7.9.3.1.4)
reactor (1724)	scenario%reactor (scenario_reactor) (7.9.3.1.287)
pnetwork (1961)	scenario%reactor%pnetwork (float) (7.9.3.1.2)
sol (1724)	scenario%sol (scenario_sol) (7.9.3.1.290)
l_te_sol (1964)	scenario%sol%l_te_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_te_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_te_sol%source (string) (7.9.3.1.4)
l_ti_sol (1964)	scenario%sol%l_ti_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_ti_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_ti_sol%source (string) (7.9.3.1.4)
l_ne_sol (1964)	scenario%sol%l_ne_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_ne_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_ne_sol%source (string) (7.9.3.1.4)
l_ni_sol (1964)	scenario%sol%l_ni_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_ni_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_ni_sol%source (string) (7.9.3.1.4)

l_qe_sol (1964)	scenario%sol%l_qe_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_qe_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_qe_sol%source (string) (7.9.3.1.4)
l_qi_sol (1964)	scenario%sol%l_qi_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%l_qi_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%l_qi_sol%source (string) (7.9.3.1.4)
p_rad_sol (1964)	scenario%sol%p_rad_sol (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%p_rad_sol%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%p_rad_sol%source (string) (7.9.3.1.4)
gas_puff (1964)	scenario%sol%gas_puff (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%sol%gas_puff%value (float) (7.9.3.1.2)
source (1962)	scenario%sol%gas_puff%source (string) (7.9.3.1.4)
vol_ave (1724)	scenario%vol_ave (scenario_vol_ave) (7.9.3.1.291)
te_ave (1965)	scenario%vol_ave%te_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%te_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%te_ave%source (string) (7.9.3.1.4)
ti_ave (1965)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%ti_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%ti_ave%source (string) (7.9.3.1.4)
ne_ave (1965)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%ne_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%ne_ave%source (string) (7.9.3.1.4)
dne_ave_dt (1965)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.3.1.4)
ni_ave (1965)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%ni_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%ni_ave%source (string) (7.9.3.1.4)
zeff_ave (1965)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%zeff_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%zeff_ave%source (string) (7.9.3.1.4)
ti_o_te_ave (1965)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.3.1.4)
meff_ave (1965)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%meff_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%meff_ave%source (string) (7.9.3.1.4)
pellet_flux (1965)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%pellet_flux%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%pellet_flux%source (string) (7.9.3.1.4)
nions_ave (1965)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.3.1.14)
omega_ave (1965)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.3.1.288)
value (1962)	scenario%vol_ave%omega_ave%value (float) (7.9.3.1.2)
source (1962)	scenario%vol_ave%omega_ave%source (string) (7.9.3.1.4)
codeparam (1724)	scenario%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	scenario%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	scenario%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	scenario%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	scenario%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	scenario%codeparam%output_flag (integer) (7.9.3.1.3)
time (1724)	scenario%time (float) (7.9.3.1.2)

7.9.3.2.33 summary

datainfo (1725)	summary%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	summary%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	summary%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	summary%datainfo%source (string) (7.9.3.1.4)
comment (1783)	summary%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	summary%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	summary%datainfo%whatref (whatref) (7.9.3.1.350)

user (2024)	summary%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	summary%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	summary%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	summary%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	summary%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	summary%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	summary%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	summary%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	summary%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	summary%datainfo%putinfo%rights (string) (7.9.3.1.4)
ip (1725)	summary%ip (reduced) (7.9.3.1.235)
value (1909)	summary%ip%value (float) (7.9.3.1.2)
source (1909)	summary%ip%source (string) (7.9.3.1.4)
time (1909)	summary%ip%time (float) (7.9.3.1.2)
bvac_r (1725)	summary%bvac_r (reduced) (7.9.3.1.235)
value (1909)	summary%bvac_r%value (float) (7.9.3.1.2)
source (1909)	summary%bvac_r%source (string) (7.9.3.1.4)
time (1909)	summary%bvac_r%time (float) (7.9.3.1.2)
geom_axis_r (1725)	summary%geom_axis_r (reduced) (7.9.3.1.235)
value (1909)	summary%geom_axis_r%value (float) (7.9.3.1.2)
source (1909)	summary%geom_axis_r%source (string) (7.9.3.1.4)
time (1909)	summary%geom_axis_r%time (float) (7.9.3.1.2)
a_minor (1725)	summary%a_minor (reduced) (7.9.3.1.235)
value (1909)	summary%a_minor%value (float) (7.9.3.1.2)
source (1909)	summary%a_minor%source (string) (7.9.3.1.4)
time (1909)	summary%a_minor%time (float) (7.9.3.1.2)
elongation (1725)	summary%elongation (reduced) (7.9.3.1.235)
value (1909)	summary%elongation%value (float) (7.9.3.1.2)
source (1909)	summary%elongation%source (string) (7.9.3.1.4)
time (1909)	summary%elongation%time (float) (7.9.3.1.2)
tria_lower (1725)	summary%tria_lower (reduced) (7.9.3.1.235)
value (1909)	summary%tria_lower%value (float) (7.9.3.1.2)
source (1909)	summary%tria_lower%source (string) (7.9.3.1.4)
time (1909)	summary%tria_lower%time (float) (7.9.3.1.2)
tria_upper (1725)	summary%tria_upper (reduced) (7.9.3.1.235)
value (1909)	summary%tria_upper%value (float) (7.9.3.1.2)
source (1909)	summary%tria_upper%source (string) (7.9.3.1.4)
time (1909)	summary%tria_upper%time (float) (7.9.3.1.2)
tev (1725)	summary%tev (reduced) (7.9.3.1.235)
value (1909)	summary%tev%value (float) (7.9.3.1.2)
source (1909)	summary%tev%source (string) (7.9.3.1.4)
time (1909)	summary%tev%time (float) (7.9.3.1.2)
tiv (1725)	summary%tiv (reduced) (7.9.3.1.235)
value (1909)	summary%tiv%value (float) (7.9.3.1.2)
source (1909)	summary%tiv%source (string) (7.9.3.1.4)
time (1909)	summary%tiv%time (float) (7.9.3.1.2)
nev (1725)	summary%nev (reduced) (7.9.3.1.235)
value (1909)	summary%nev%value (float) (7.9.3.1.2)
source (1909)	summary%nev%source (string) (7.9.3.1.4)
time (1909)	summary%nev%time (float) (7.9.3.1.2)
zeffv (1725)	summary%zeffv (reduced) (7.9.3.1.235)
value (1909)	summary%zeffv%value (float) (7.9.3.1.2)
source (1909)	summary%zeffv%source (string) (7.9.3.1.4)
time (1909)	summary%zeffv%time (float) (7.9.3.1.2)
beta_pol (1725)	summary%beta_pol (reduced) (7.9.3.1.235)
value (1909)	summary%beta_pol%value (float) (7.9.3.1.2)
source (1909)	summary%beta_pol%source (string) (7.9.3.1.4)
time (1909)	summary%beta_pol%time (float) (7.9.3.1.2)
beta_tor (1725)	summary%beta_tor (reduced) (7.9.3.1.235)
value (1909)	summary%beta_tor%value (float) (7.9.3.1.2)
source (1909)	summary%beta_tor%source (string) (7.9.3.1.4)

time (1909)	summary%beta_tor%time (float) (7.9.3.1.2)
beta_normal (1725)	summary%beta_normal (reduced) (7.9.3.1.235)
value (1909)	summary%beta_normal%value (float) (7.9.3.1.2)
source (1909)	summary%beta_normal%source (string) (7.9.3.1.4)
time (1909)	summary%beta_normal%time (float) (7.9.3.1.2)
li (1725)	summary%li (reduced) (7.9.3.1.235)
value (1909)	summary%li%value (float) (7.9.3.1.2)
source (1909)	summary%li%source (string) (7.9.3.1.4)
time (1909)	summary%li%time (float) (7.9.3.1.2)
volume (1725)	summary%volume (reduced) (7.9.3.1.235)
value (1909)	summary%volume%value (float) (7.9.3.1.2)
source (1909)	summary%volume%source (string) (7.9.3.1.4)
time (1909)	summary%volume%time (float) (7.9.3.1.2)
area (1725)	summary%area (reduced) (7.9.3.1.235)
value (1909)	summary%area%value (float) (7.9.3.1.2)
source (1909)	summary%area%source (string) (7.9.3.1.4)
time (1909)	summary%area%time (float) (7.9.3.1.2)
main_ion1_z (1725)	summary%main_ion1_z (reduced) (7.9.3.1.235)
value (1909)	summary%main_ion1_z%value (float) (7.9.3.1.2)
source (1909)	summary%main_ion1_z%source (string) (7.9.3.1.4)
time (1909)	summary%main_ion1_z%time (float) (7.9.3.1.2)
main_ion1_a (1725)	summary%main_ion1_a (reduced) (7.9.3.1.235)
value (1909)	summary%main_ion1_a%value (float) (7.9.3.1.2)
source (1909)	summary%main_ion1_a%source (string) (7.9.3.1.4)
time (1909)	summary%main_ion1_a%time (float) (7.9.3.1.2)
main_ion2_z (1725)	summary%main_ion2_z (reduced) (7.9.3.1.235)
value (1909)	summary%main_ion2_z%value (float) (7.9.3.1.2)
source (1909)	summary%main_ion2_z%source (string) (7.9.3.1.4)
time (1909)	summary%main_ion2_z%time (float) (7.9.3.1.2)
main_ion2_a (1725)	summary%main_ion2_a (reduced) (7.9.3.1.235)
value (1909)	summary%main_ion2_a%value (float) (7.9.3.1.2)
source (1909)	summary%main_ion2_a%source (string) (7.9.3.1.4)
time (1909)	summary%main_ion2_a%time (float) (7.9.3.1.2)
impur1_z (1725)	summary%impur1_z (reduced) (7.9.3.1.235)
value (1909)	summary%impur1_z%value (float) (7.9.3.1.2)
source (1909)	summary%impur1_z%source (string) (7.9.3.1.4)
time (1909)	summary%impur1_z%time (float) (7.9.3.1.2)
impur1_a (1725)	summary%impur1_a (reduced) (7.9.3.1.235)
value (1909)	summary%impur1_a%value (float) (7.9.3.1.2)
source (1909)	summary%impur1_a%source (string) (7.9.3.1.4)
time (1909)	summary%impur1_a%time (float) (7.9.3.1.2)
time (1725)	summary%time (float) (7.9.3.1.2)

7.9.3.2.34 topinfo

dataprovider (1726)	topinfo%dataprovider (string) (7.9.3.1.4)
description (1726)	topinfo%description (string) (7.9.3.1.4)
firstputdate (1726)	topinfo%firstputdate (string) (7.9.3.1.4)
lastupdate (1726)	topinfo%lastupdate (string) (7.9.3.1.4)
source (1726)	topinfo%source (string) (7.9.3.1.4)
comment (1726)	topinfo%comment (string) (7.9.3.1.4)
dataversion (1726)	topinfo%dataversion (string) (7.9.3.1.4)
workflow (1726)	topinfo%workflow (string) (7.9.3.1.4)
entry (1726)	topinfo%entry (entry_def) (7.9.3.1.154)
user (1828)	topinfo%entry%user (string) (7.9.3.1.4)
machine (1828)	topinfo%entry%machine (string) (7.9.3.1.4)
shot (1828)	topinfo%entry%shot (integer) (7.9.3.1.3)
run (1828)	topinfo%entry%run (integer) (7.9.3.1.3)
parent_entry (1726)	topinfo%parent_entry (entry_def) (7.9.3.1.154)
user (1828)	topinfo%parent_entry%user (string) (7.9.3.1.4)
machine (1828)	topinfo%parent_entry%machine (string) (7.9.3.1.4)

shot (1828)	topinfo%parent_entry%shot (integer) (7.9.3.1.3)
run (1828)	topinfo%parent_entry%run (integer) (7.9.3.1.3)
mdinfo (1726)	topinfo%mdinfo (mdinfo) (7.9.3.1.191)
shot_min (1865)	topinfo%mdinfo%shot_min (integer) (7.9.3.1.3)
shot_max (1865)	topinfo%mdinfo%shot_max (integer) (7.9.3.1.3)
md_entry (1865)	topinfo%mdinfo%md_entry (entry_def) (7.9.3.1.154)
user (1828)	topinfo%mdinfo%md_entry%user (string) (7.9.3.1.4)
machine (1828)	topinfo%mdinfo%md_entry%machine (string) (7.9.3.1.4)
shot (1828)	topinfo%mdinfo%md_entry%shot (integer) (7.9.3.1.3)
run (1828)	topinfo%mdinfo%md_entry%run (integer) (7.9.3.1.3)

7.9.3.2.35 toroidfield

datainfo (1727)	toroidfield%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	toroidfield%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	toroidfield%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	toroidfield%datainfo%source (string) (7.9.3.1.4)
comment (1783)	toroidfield%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	toroidfield%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	toroidfield%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	toroidfield%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	toroidfield%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	toroidfield%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	toroidfield%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	toroidfield%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	toroidfield%datainfo%putinfo%rights (string) (7.9.3.1.4)
desc_tfcoils (1727)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.3.1.318)
type (1992)	toroidfield%desc_tfcoils%type (integer) (7.9.3.1.3)
phi (1992)	toroidfield%desc_tfcoils%phi (float) (7.9.3.1.2)
circularcoil (1992)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.3.1.74)
centre (1748)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.3.1.258)
r (1932)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.3.1.2)
z (1932)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.3.1.2)
hlength (1748)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.3.1.2)
radialhwidth (1748)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.3.1.2)
planecoil (1992)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.3.1.222)
coordinates (1896)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.3.1.259)
r (1933)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.3.1.14)
z (1933)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.3.1.14)
hlength (1896)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.3.1.14)
radialhwidth (1896)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.3.1.14)
structure (1992)	toroidfield%desc_tfcoils%structure (tf_structure) (7.9.3.1.319)
jcable (1993)	toroidfield%desc_tfcoils%structure%jcable (float) (7.9.3.1.2)
tisotf (1993)	toroidfield%desc_tfcoils%structure%tisotf (float) (7.9.3.1.2)
efcasing (1993)	toroidfield%desc_tfcoils%structure%efcasing (float) (7.9.3.1.2)
escasing (1993)	toroidfield%desc_tfcoils%structure%escasing (float) (7.9.3.1.2)
sigjackettf (1993)	toroidfield%desc_tfcoils%structure%sigjackettf (float) (7.9.3.1.2)
sigvaulttf (1993)	toroidfield%desc_tfcoils%structure%sigvaulttf (float) (7.9.3.1.2)
ktf (1993)	toroidfield%desc_tfcoils%structure%ktf (float) (7.9.3.1.2)
ritf (1993)	toroidfield%desc_tfcoils%structure%ritf (float) (7.9.3.1.2)
riitf (1993)	toroidfield%desc_tfcoils%structure%riitf (float) (7.9.3.1.2)
retf (1993)	toroidfield%desc_tfcoils%structure%retf (float) (7.9.3.1.2)
nturns (1727)	toroidfield%nturns (integer) (7.9.3.1.3)
ncoils (1727)	toroidfield%ncoils (integer) (7.9.3.1.3)
current (1727)	toroidfield%current (exp0D) (7.9.3.1.159)
value (1833)	toroidfield%current%value (float) (7.9.3.1.2)
abserror (1833)	toroidfield%current%abserror (float) (7.9.3.1.2)

relerror (1833)	toroidfield%current%relerror (float) (7.9.3.1.2)
bvac_r (1727)	toroidfield%bvac_r (exp0D) (7.9.3.1.159)
value (1833)	toroidfield%bvac_r%value (float) (7.9.3.1.2)
abserror (1833)	toroidfield%bvac_r%abserror (float) (7.9.3.1.2)
relerror (1833)	toroidfield%bvac_r%relerror (float) (7.9.3.1.2)
r0 (1727)	toroidfield%r0 (float) (7.9.3.1.2)
time (1727)	toroidfield%time (float) (7.9.3.1.2)

7.9.3.2.36 tsdiag

datainfo (1728)	tsdiag%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	tsdiag%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	tsdiag%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	tsdiag%datainfo%source (string) (7.9.3.1.4)
comment (1783)	tsdiag%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	tsdiag%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	tsdiag%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	tsdiag%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	tsdiag%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	tsdiag%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	tsdiag%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	tsdiag%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	tsdiag%datainfo%putinfo%rights (string) (7.9.3.1.4)
setup (1728)	tsdiag%setup (tssetup) (7.9.3.1.328)
position (2002)	tsdiag%setup%position (rzphi1D) (7.9.3.1.264)
r (1938)	tsdiag%setup%position%r (vecflt_type) (7.9.3.1.14)
z (1938)	tsdiag%setup%position%z (vecflt_type) (7.9.3.1.14)
phi (1938)	tsdiag%setup%position%phi (vecflt_type) (7.9.3.1.14)
measure (1728)	tsdiag%measure (tsmeasure) (7.9.3.1.327)
te (2001)	tsdiag%measure%te (exp1D) (7.9.3.1.160)
value (1834)	tsdiag%measure%te%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	tsdiag%measure%te%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	tsdiag%measure%te%relerror (vecflt_type) (7.9.3.1.14)
ne (2001)	tsdiag%measure%ne (exp1D) (7.9.3.1.160)
value (1834)	tsdiag%measure%ne%value (vecflt_type) (7.9.3.1.14)
abserror (1834)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.3.1.14)
relerror (1834)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.3.1.14)
time (1728)	tsdiag%time (float) (7.9.3.1.2)

7.9.3.2.37 turbulence

datainfo (1729)	turbulence%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	turbulence%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	turbulence%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	turbulence%datainfo%source (string) (7.9.3.1.4)
comment (1783)	turbulence%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	turbulence%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	turbulence%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	turbulence%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	turbulence%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	turbulence%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	turbulence%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	turbulence%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	turbulence%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	turbulence%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	turbulence%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	turbulence%datainfo%putinfo%putlocation (string) (7.9.3.1.4)

rights (1906)	turbulence%datainfo%putinfo%rights (string) (7.9.3.1.4)
composition (1729)	turbulence%composition (turbcomposition) (7.9.3.1.329)
amn (2003)	turbulence%composition%amn (vecflt_type) (7.9.3.1.14)
zn (2003)	turbulence%composition%zn (vecflt_type) (7.9.3.1.14)
zion (2003)	turbulence%composition%zion (vecflt_type) (7.9.3.1.14)
ie_mass (2003)	turbulence%composition%ie_mass (vecflt_type) (7.9.3.1.14)
coordsys (1729)	turbulence%coordsys (turbcoordsys) (7.9.3.1.330)
grid_type (2004)	turbulence%coordsys%grid_type (string) (7.9.3.1.4)
turbgrid (2004)	turbulence%coordsys%turbgrid (turbgrid) (7.9.3.1.332)
dim1 (2006)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.3.1.14)
dim2 (2006)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.3.1.14)
dim3 (2006)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.3.1.14)
dim_v1 (2006)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.3.1.14)
dim_v2 (2006)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.3.1.14)
jacobian (2004)	turbulence%coordsys%jacobian (matflt_type) (7.9.3.1.12)
g_11 (2004)	turbulence%coordsys%g_11 (matflt_type) (7.9.3.1.12)
g_12 (2004)	turbulence%coordsys%g_12 (matflt_type) (7.9.3.1.12)
g_13 (2004)	turbulence%coordsys%g_13 (matflt_type) (7.9.3.1.12)
g_22 (2004)	turbulence%coordsys%g_22 (matflt_type) (7.9.3.1.12)
g_23 (2004)	turbulence%coordsys%g_23 (matflt_type) (7.9.3.1.12)
g_33 (2004)	turbulence%coordsys%g_33 (matflt_type) (7.9.3.1.12)
position (2004)	turbulence%coordsys%position (rzphi3D) (7.9.3.1.267)
r (1941)	turbulence%coordsys%position%r (array3dflt_type) (7.9.3.1.6)
z (1941)	turbulence%coordsys%position%z (array3dflt_type) (7.9.3.1.6)
phi (1941)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.3.1.6)
var0d (1729)	turbulence%var0d (turbvar0d) (7.9.3.1.334)
dtime_type (2008)	turbulence%var0d%dtime_type (string) (7.9.3.1.4)
dtime (2008)	turbulence%var0d%dtime (vecflt_type) (7.9.3.1.14)
en_exb (2008)	turbulence%var0d%en_exb (vecflt_type) (7.9.3.1.14)
en_mag (2008)	turbulence%var0d%en_mag (vecflt_type) (7.9.3.1.14)
en_el_th (2008)	turbulence%var0d%en_el_th (vecflt_type) (7.9.3.1.14)
en_ion_th (2008)	turbulence%var0d%en_ion_th (matflt_type) (7.9.3.1.12)
en_el_par (2008)	turbulence%var0d%en_el_par (vecflt_type) (7.9.3.1.14)
en_ion_par (2008)	turbulence%var0d%en_ion_par (matflt_type) (7.9.3.1.12)
en_tot (2008)	turbulence%var0d%en_tot (vecflt_type) (7.9.3.1.14)
fl_el (2008)	turbulence%var0d%fl_el (vecflt_type) (7.9.3.1.14)
fl_heatel (2008)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.3.1.14)
fl_ion (2008)	turbulence%var0d%fl_ion (matflt_type) (7.9.3.1.12)
fl_heation (2008)	turbulence%var0d%fl_heation (matflt_type) (7.9.3.1.12)
fl_magel (2008)	turbulence%var0d%fl_magel (vecflt_type) (7.9.3.1.14)
fl_magheatel (2008)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.3.1.14)
fl_magion (2008)	turbulence%var0d%fl_magion (matflt_type) (7.9.3.1.12)
flmagheation (2008)	turbulence%var0d%flmagheation (matflt_type) (7.9.3.1.12)
var1d (1729)	turbulence%var1d (turbvar1d) (7.9.3.1.335)
rho_tor_norm (2009)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.3.1.14)
phi (2009)	turbulence%var1d%phi (vecflt_type) (7.9.3.1.14)
er (2009)	turbulence%var1d%er (vecflt_type) (7.9.3.1.14)
vor (2009)	turbulence%var1d%vor (vecflt_type) (7.9.3.1.14)
apl (2009)	turbulence%var1d%apl (vecflt_type) (7.9.3.1.14)
jpl (2009)	turbulence%var1d%jpl (vecflt_type) (7.9.3.1.14)
ne (2009)	turbulence%var1d%ne (vecflt_type) (7.9.3.1.14)
te (2009)	turbulence%var1d%te (vecflt_type) (7.9.3.1.14)
ni (2009)	turbulence%var1d%ni (matflt_type) (7.9.3.1.12)
ti (2009)	turbulence%var1d%ti (matflt_type) (7.9.3.1.12)
ui (2009)	turbulence%var1d%ui (matflt_type) (7.9.3.1.12)
var2d (1729)	turbulence%var2d (turbvar2d) (7.9.3.1.336)
rho_tor_norm (2010)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.3.1.14)
theta (2010)	turbulence%var2d%theta (vecflt_type) (7.9.3.1.14)
phi (2010)	turbulence%var2d%phi (matflt_type) (7.9.3.1.12)
apl (2010)	turbulence%var2d%apl (matflt_type) (7.9.3.1.12)
jpl (2010)	turbulence%var2d%jpl (matflt_type) (7.9.3.1.12)

vor (2010)	turbulence%var2d%vor (matflt_type) (7.9.3.1.12)
ne (2010)	turbulence%var2d%ne (matflt_type) (7.9.3.1.12)
te (2010)	turbulence%var2d%te (matflt_type) (7.9.3.1.12)
ni (2010)	turbulence%var2d%ni (array3dflt_type) (7.9.3.1.6)
ti (2010)	turbulence%var2d%ti (array3dflt_type) (7.9.3.1.6)
ui (2010)	turbulence%var2d%ui (array3dflt_type) (7.9.3.1.6)
var3d (1729)	turbulence%var3d (turbvar3d) (7.9.3.1.337)
phi (2011)	turbulence%var3d%phi (array3dflt_type) (7.9.3.1.6)
vor (2011)	turbulence%var3d%vor (array3dflt_type) (7.9.3.1.6)
jpl (2011)	turbulence%var3d%jpl (array3dflt_type) (7.9.3.1.6)
ne (2011)	turbulence%var3d%ne (array3dflt_type) (7.9.3.1.6)
var4d (1729)	turbulence%var4d (turbvar4d) (7.9.3.1.338)
fe (2012)	turbulence%var4d%fe (array4dflt_type) (7.9.3.1.8)
fi (2012)	turbulence%var4d%fi (array5dflt_type) (7.9.3.1.9)
var5d (1729)	turbulence%var5d (turbvar5d) (7.9.3.1.339)
fe (2013)	turbulence%var5d%fe (array5dflt_type) (7.9.3.1.9)
fi (2013)	turbulence%var5d%fi (array6dflt_type) (7.9.3.1.10)
spec1d (1729)	turbulence%spec1d (turbspec1d) (7.9.3.1.333)
kperp (2007)	turbulence%spec1d%kperp (vecflt_type) (7.9.3.1.14)
phi (2007)	turbulence%spec1d%phi (vecflt_type) (7.9.3.1.14)
vor (2007)	turbulence%spec1d%vor (vecflt_type) (7.9.3.1.14)
b (2007)	turbulence%spec1d%b (vecflt_type) (7.9.3.1.14)
jpl (2007)	turbulence%spec1d%jpl (vecflt_type) (7.9.3.1.14)
ne (2007)	turbulence%spec1d%ne (vecflt_type) (7.9.3.1.14)
te (2007)	turbulence%spec1d%te (vecflt_type) (7.9.3.1.14)
ti (2007)	turbulence%spec1d%ti (matflt_type) (7.9.3.1.12)
fe (2007)	turbulence%spec1d%fe (vecflt_type) (7.9.3.1.14)
qe (2007)	turbulence%spec1d%qe (vecflt_type) (7.9.3.1.14)
qi (2007)	turbulence%spec1d%qi (matflt_type) (7.9.3.1.12)
me (2007)	turbulence%spec1d%me (vecflt_type) (7.9.3.1.14)
mi (2007)	turbulence%spec1d%mi (matflt_type) (7.9.3.1.12)
env1d (1729)	turbulence%env1d (turbenv1d) (7.9.3.1.331)
theta (2005)	turbulence%env1d%theta (vecflt_type) (7.9.3.1.14)
phi (2005)	turbulence%env1d%phi (vecflt_type) (7.9.3.1.14)
vor (2005)	turbulence%env1d%vor (vecflt_type) (7.9.3.1.14)
jpl (2005)	turbulence%env1d%jpl (vecflt_type) (7.9.3.1.14)
ne (2005)	turbulence%env1d%ne (vecflt_type) (7.9.3.1.14)
he (2005)	turbulence%env1d%he (vecflt_type) (7.9.3.1.14)
te (2005)	turbulence%env1d%te (vecflt_type) (7.9.3.1.14)
ni (2005)	turbulence%env1d%ni (matflt_type) (7.9.3.1.12)
ti (2005)	turbulence%env1d%ti (matflt_type) (7.9.3.1.12)
ui (2005)	turbulence%env1d%ui (matflt_type) (7.9.3.1.12)
fe (2005)	turbulence%env1d%fe (vecflt_type) (7.9.3.1.14)
qe (2005)	turbulence%env1d%qe (vecflt_type) (7.9.3.1.14)
qi (2005)	turbulence%env1d%qi (matflt_type) (7.9.3.1.12)
me (2005)	turbulence%env1d%me (vecflt_type) (7.9.3.1.14)
mi (2005)	turbulence%env1d%mi (matflt_type) (7.9.3.1.12)
codeparam (1729)	turbulence%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	turbulence%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	turbulence%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	turbulence%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	turbulence%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	turbulence%codeparam%output_flag (integer) (7.9.3.1.3)
time (1729)	turbulence%time (float) (7.9.3.1.2)

7.9.3.2.38 vessel

datainfo (1730)	vessel%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	vessel%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	vessel%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	vessel%datainfo%source (string) (7.9.3.1.4)

comment (1783)	vessel%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	vessel%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	vessel%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	vessel%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	vessel%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	vessel%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	vessel%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	vessel%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	vessel%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	vessel%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	vessel%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	vessel%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	vessel%datainfo%putinfo%rights (string) (7.9.3.1.4)
position (1730)	vessel%position (rz1D) (7.9.3.1.259)
r (1933)	vessel%position%r (vecflt_type) (7.9.3.1.14)
z (1933)	vessel%position%z (vecflt_type) (7.9.3.1.14)

7.9.3.2.39 waves

datainfo (1731)	waves%datainfo (datainfo) (7.9.3.1.109)
dataprovider (1783)	waves%datainfo%dataprovider (string) (7.9.3.1.4)
putdate (1783)	waves%datainfo%putdate (string) (7.9.3.1.4)
source (1783)	waves%datainfo%source (string) (7.9.3.1.4)
comment (1783)	waves%datainfo%comment (string) (7.9.3.1.4)
isref (1783)	waves%datainfo%isref (integer) (7.9.3.1.3)
whatref (1783)	waves%datainfo%whatref (whatref) (7.9.3.1.350)
user (2024)	waves%datainfo%whatref%user (string) (7.9.3.1.4)
machine (2024)	waves%datainfo%whatref%machine (string) (7.9.3.1.4)
shot (2024)	waves%datainfo%whatref%shot (integer) (7.9.3.1.3)
run (2024)	waves%datainfo%whatref%run (integer) (7.9.3.1.3)
occurrence (2024)	waves%datainfo%whatref%occurrence (integer) (7.9.3.1.3)
putinfo (1783)	waves%datainfo%putinfo (putinfo) (7.9.3.1.232)
putmethod (1906)	waves%datainfo%putinfo%putmethod (string) (7.9.3.1.4)
putaccess (1906)	waves%datainfo%putinfo%putaccess (string) (7.9.3.1.4)
putlocation (1906)	waves%datainfo%putinfo%putlocation (string) (7.9.3.1.4)
rights (1906)	waves%datainfo%putinfo%rights (string) (7.9.3.1.4)
coherentwave (1731)	waves%coherentwave (coherentwave) (7.9.3.1.77)
composition (1751)	waves%coherentwave%composition (composition) (7.9.3.1.91)
amn (1765)	waves%coherentwave%composition%amn (vecflt_type) (7.9.3.1.14)
zn (1765)	waves%coherentwave%composition%zn (vecflt_type) (7.9.3.1.14)
zion (1765)	waves%coherentwave%composition%zion (vecflt_type) (7.9.3.1.14)
imp_flag (1765)	waves%coherentwave%composition%imp_flag (vecint_type) (7.9.3.1.15)
global_param (1751)	waves%coherentwave%global_param (waves_global_param) (7.9.3.1.343)
frequency (2017)	waves%coherentwave%global_param%frequency (float) (7.9.3.1.2)
name (2017)	waves%coherentwave%global_param%name (string) (7.9.3.1.4)
type (2017)	waves%coherentwave%global_param%type (string) (7.9.3.1.4)
ntor (2017)	waves%coherentwave%global_param%ntor (vecint_type) (7.9.3.1.15)
f_assumption (2017)	waves%coherentwave%global_param%f_assumption (vecint_type) (7.9.3.1.15)
power_tot (2017)	waves%coherentwave%global_param%power_tot (float) (7.9.3.1.2)
p_frac_ntor (2017)	waves%coherentwave%global_param%p_frac_ntor (vecflt_type) (7.9.3.1.14)
pow_i (2017)	waves%coherentwave%global_param%pow_i (vecflt_type) (7.9.3.1.14)
pow_e (2017)	waves%coherentwave%global_param%pow_e (float) (7.9.3.1.2)
pow_ntor_i (2017)	waves%coherentwave%global_param%pow_ntor_i (matflt_type) (7.9.3.1.12)
pow_ntor_e (2017)	waves%coherentwave%global_param%pow_ntor_e (vecflt_type) (7.9.3.1.14)
cur_tor (2017)	waves%coherentwave%global_param%cur_tor (float) (7.9.3.1.2)
cur_tor_ntor (2017)	waves%coherentwave%global_param%cur_tor_ntor (vecflt_type) (7.9.3.1.14)
code_type (2017)	waves%coherentwave%global_param%code_type (integer) (7.9.3.1.3)
toroid_field (2017)	waves%coherentwave%global_param%toroid_field (b0r0) (7.9.3.1.65)
r0 (1739)	waves%coherentwave%global_param%toroid_field%r0 (float) (7.9.3.1.2)
b0 (1739)	waves%coherentwave%global_param%toroid_field%b0 (float) (7.9.3.1.2)
grid_1d (1751)	waves%coherentwave%grid_1d (waves_grid_1d) (7.9.3.1.344)

rho_tor_norm (2018)	waves%coherentwave%grid_1d%rho_tor_norm (vecflt_type) (7.9.3.1.14)
rho_tor (2018)	waves%coherentwave%grid_1d%rho_tor (vecflt_type) (7.9.3.1.14)
psi (2018)	waves%coherentwave%grid_1d%psi (vecflt_type) (7.9.3.1.14)
grid_2d (1751)	waves%coherentwave%grid_2d (waves_grid_2d) (7.9.3.1.345)
grid_type (2019)	waves%coherentwave%grid_2d%grid_type (integer) (7.9.3.1.3)
rho_tor_norm (2019)	waves%coherentwave%grid_2d%rho_tor_norm (matflt_type) (7.9.3.1.12)
rho_tor (2019)	waves%coherentwave%grid_2d%rho_tor (matflt_type) (7.9.3.1.12)
psi (2019)	waves%coherentwave%grid_2d%psi (matflt_type) (7.9.3.1.12)
theta (2019)	waves%coherentwave%grid_2d%theta (matflt_type) (7.9.3.1.12)
r (2019)	waves%coherentwave%grid_2d%r (matflt_type) (7.9.3.1.12)
z (2019)	waves%coherentwave%grid_2d%z (matflt_type) (7.9.3.1.12)
theta_info (2019)	waves%coherentwave%grid_2d%theta_info (theta_info) (7.9.3.1.320)
angl_type (1994)	waves%coherentwave%grid_2d%theta_info%angl_type (integer) (7.9.3.1.3)
th2th_pol (1994)	waves%coherentwave%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.3.1.12)
profiles_1d (1751)	waves%coherentwave%profiles_1d (waves_profiles_1d) (7.9.3.1.346)
powd_tot (2020)	waves%coherentwave%profiles_1d%powd_tot (vecflt_type) (7.9.3.1.14)
powd_e (2020)	waves%coherentwave%profiles_1d%powd_e (vecflt_type) (7.9.3.1.14)
powd_i (2020)	waves%coherentwave%profiles_1d%powd_i (matflt_type) (7.9.3.1.12)
powd_ntor (2020)	waves%coherentwave%profiles_1d%powd_ntor (matflt_type) (7.9.3.1.12)
powd_ntor_e (2020)	waves%coherentwave%profiles_1d%powd_ntor_e (matflt_type) (7.9.3.1.12)
powd_ntor_i (2020)	waves%coherentwave%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.3.1.6)
curd_tor (2020)	waves%coherentwave%profiles_1d%curd_tor (vecflt_type) (7.9.3.1.14)
curd_torntor (2020)	waves%coherentwave%profiles_1d%curd_torntor (matflt_type) (7.9.3.1.12)
pow_tot (2020)	waves%coherentwave%profiles_1d%pow_tot (vecflt_type) (7.9.3.1.14)
pow_e (2020)	waves%coherentwave%profiles_1d%pow_e (vecflt_type) (7.9.3.1.14)
pow_i (2020)	waves%coherentwave%profiles_1d%pow_i (matflt_type) (7.9.3.1.12)
pow_ntor (2020)	waves%coherentwave%profiles_1d%pow_ntor (array3dflt_type) (7.9.3.1.6)
pow_ntor_e (2020)	waves%coherentwave%profiles_1d%pow_ntor_e (matflt_type) (7.9.3.1.12)
pow_ntor_i (2020)	waves%coherentwave%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.3.1.6)
curd_par (2020)	waves%coherentwave%profiles_1d%curd_par (vecflt_type) (7.9.3.1.14)
curd_parntor (2020)	waves%coherentwave%profiles_1d%curd_parntor (matflt_type) (7.9.3.1.12)
cur_tor (2020)	waves%coherentwave%profiles_1d%cur_tor (vecflt_type) (7.9.3.1.14)
cur_tor_ntor (2020)	waves%coherentwave%profiles_1d%cur_tor_ntor (matflt_type) (7.9.3.1.12)
profiles_2d (1751)	waves%coherentwave%profiles_2d (waves_profiles_2d) (7.9.3.1.347)
powd_tot (2021)	waves%coherentwave%profiles_2d%powd_tot (matflt_type) (7.9.3.1.12)
powd_e (2021)	waves%coherentwave%profiles_2d%powd_e (matflt_type) (7.9.3.1.12)
powd_i (2021)	waves%coherentwave%profiles_2d%powd_i (array3dflt_type) (7.9.3.1.6)
powd_ntor (2021)	waves%coherentwave%profiles_2d%powd_ntor (array3dflt_type) (7.9.3.1.6)
powd_ntor_e (2021)	waves%coherentwave%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.3.1.6)
powd_ntor_i (2021)	waves%coherentwave%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.3.1.8)
powd_iharm (2021)	waves%coherentwave%profiles_2d%powd_iharm (array5dflt_type) (7.9.3.1.9)
beamtracing (1751)	waves%coherentwave%beamtracing (beamtracing) (7.9.3.1.67)
npoints (1741)	waves%coherentwave%beamtracing%npoints (integer) (7.9.3.1.3)
power (1741)	waves%coherentwave%beamtracing%power (float) (7.9.3.1.2)
dnpar (1741)	waves%coherentwave%beamtracing%dnpar (vecflt_type) (7.9.3.1.14)
length (1741)	waves%coherentwave%beamtracing%length (vecflt_type) (7.9.3.1.14)
position (1741)	waves%coherentwave%beamtracing%position (waves_rtposition) (7.9.3.1.348)
r (2022)	waves%coherentwave%beamtracing%position%r (vecflt_type) (7.9.3.1.14)
z (2022)	waves%coherentwave%beamtracing%position%z (vecflt_type) (7.9.3.1.14)
phi (2022)	waves%coherentwave%beamtracing%position%phi (vecflt_type) (7.9.3.1.14)
psi (2022)	waves%coherentwave%beamtracing%position%psi (vecflt_type) (7.9.3.1.14)
theta (2022)	waves%coherentwave%beamtracing%position%theta (vecflt_type) (7.9.3.1.14)
wavevector (1741)	waves%coherentwave%beamtracing%wavevector (waves_rtwavevector) (7.9.3.1.349)
kr (2023)	waves%coherentwave%beamtracing%wavevector%kr (vecflt_type) (7.9.3.1.14)
kz (2023)	waves%coherentwave%beamtracing%wavevector%kz (vecflt_type) (7.9.3.1.14)
kphi (2023)	waves%coherentwave%beamtracing%wavevector%kphi (vecflt_type) (7.9.3.1.14)
npar (2023)	waves%coherentwave%beamtracing%wavevector%npar (vecflt_type) (7.9.3.1.14)
nperp (2023)	waves%coherentwave%beamtracing%wavevector%nperp (vecflt_type) (7.9.3.1.14)
ntor (2023)	waves%coherentwave%beamtracing%wavevector%ntor (vecflt_type) (7.9.3.1.14)
var_ntor (2023)	waves%coherentwave%beamtracing%wavevector%var_ntor (integer) (7.9.3.1.3)
polarization (1741)	waves%coherentwave%beamtracing%polarization (polarization) (7.9.3.1.225)

epol_p_re (1899)	waves%coherentwave%beamtracing%polarization%epol_p_re (vecflt_type) (7.9.3.1.14)
epol_p_im (1899)	waves%coherentwave%beamtracing%polarization%epol_p_im (vecflt_type) (7.9.3.1.14)
epol_m_re (1899)	waves%coherentwave%beamtracing%polarization%epol_m_re (vecflt_type) (7.9.3.1.14)
epol_m_im (1899)	waves%coherentwave%beamtracing%polarization%epol_m_im (vecflt_type) (7.9.3.1.14)
epol_par_re (1899)	waves%coherentwave%beamtracing%polarization%epol_par_re (vecflt_type) (7.9.3.1.14)
epol_par_im (1899)	waves%coherentwave%beamtracing%polarization%epol_par_im (vecflt_type) (7.9.3.1.14)
powerflow (1741)	waves%coherentwave%beamtracing%powerflow (powerflow) (7.9.3.1.226)
phi_perp (1900)	waves%coherentwave%beamtracing%powerflow%phi_perp (vecflt_type) (7.9.3.1.14)
phi_par (1900)	waves%coherentwave%beamtracing%powerflow%phi_par (vecflt_type) (7.9.3.1.14)
power_e (1900)	waves%coherentwave%beamtracing%powerflow%power_e (vecflt_type) (7.9.3.1.14)
power_i (1900)	waves%coherentwave%beamtracing%powerflow%power_i (matflt_type) (7.9.3.1.12)
fullwave (1751)	waves%coherentwave%fullwave (fullwave) (7.9.3.1.168)
pol_decomp (1842)	waves%coherentwave%fullwave%pol_decomp (pol_decomp) (7.9.3.1.224)
mpol (1898)	waves%coherentwave%fullwave%pol_decomp%mpol (vecint_type) (7.9.3.1.15)
e_plus (1898)	waves%coherentwave%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.3.1.6)
e_plus_ph (1898)	waves%coherentwave%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.3.1.6)
e_minus (1898)	waves%coherentwave%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.3.1.6)
e_minus_ph (1898)	waves%coherentwave%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.3.1.6)
e_norm (1898)	waves%coherentwave%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.3.1.6)
e_norm_ph (1898)	waves%coherentwave%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.3.1.6)
e_binorm (1898)	waves%coherentwave%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.3.1.6)
e_binorm_ph (1898)	waves%coherentwave%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.3.1.6)
e_para (1898)	waves%coherentwave%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.3.1.6)
e_para_ph (1898)	waves%coherentwave%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.3.1.6)
b_norm (1898)	waves%coherentwave%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.3.1.6)
b_norm_ph (1898)	waves%coherentwave%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.3.1.6)
b_binorm (1898)	waves%coherentwave%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.3.1.6)
b_binorm_ph (1898)	waves%coherentwave%fullwave%pol_decomp%b_binorm_ph (array4dflt_type) (7.9.3.1.8)
b_para (1898)	waves%coherentwave%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.3.1.6)
b_para_ph (1898)	waves%coherentwave%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.3.1.6)
local (1842)	waves%coherentwave%fullwave%local (local) (7.9.3.1.187)
e_plus (1861)	waves%coherentwave%fullwave%local%e_plus (array3dflt_type) (7.9.3.1.6)
e_plus_ph (1861)	waves%coherentwave%fullwave%local%e_plus_ph (array3dflt_type) (7.9.3.1.6)
e_minus (1861)	waves%coherentwave%fullwave%local%e_minus (array3dflt_type) (7.9.3.1.6)
e_minus_ph (1861)	waves%coherentwave%fullwave%local%e_minus_ph (array3dflt_type) (7.9.3.1.6)
e_norm (1861)	waves%coherentwave%fullwave%local%e_norm (array3dint_type) (7.9.3.1.7)
enorm_ph (1861)	waves%coherentwave%fullwave%local%enorm_ph (array3dflt_type) (7.9.3.1.6)
e_binorm (1861)	waves%coherentwave%fullwave%local%e_binorm (array3dflt_type) (7.9.3.1.6)
e_binorm_ph (1861)	waves%coherentwave%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.3.1.6)
e_para (1861)	waves%coherentwave%fullwave%local%e_para (array3dflt_type) (7.9.3.1.6)
e_para_ph (1861)	waves%coherentwave%fullwave%local%e_para_ph (array3dflt_type) (7.9.3.1.6)
b_norm (1861)	waves%coherentwave%fullwave%local%b_norm (array3dflt_type) (7.9.3.1.6)
b_norm_ph (1861)	waves%coherentwave%fullwave%local%b_norm_ph (array3dflt_type) (7.9.3.1.6)
b_binorm (1861)	waves%coherentwave%fullwave%local%b_binorm (array3dflt_type) (7.9.3.1.6)
b_binorm_ph (1861)	waves%coherentwave%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.3.1.6)
b_para (1861)	waves%coherentwave%fullwave%local%b_para (array3dflt_type) (7.9.3.1.6)
b_para_ph (1861)	waves%coherentwave%fullwave%local%b_para_ph (array3dflt_type) (7.9.3.1.6)
codeparam (1751)	waves%coherentwave%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	waves%coherentwave%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	waves%coherentwave%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	waves%coherentwave%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	waves%coherentwave%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	waves%coherentwave%codeparam%output_flag (integer) (7.9.3.1.3)
codeparam (1731)	waves%codeparam (codeparam) (7.9.3.1.75)
codename (1749)	waves%codeparam%codename (string) (7.9.3.1.4)
codeversion (1749)	waves%codeparam%codeversion (string) (7.9.3.1.4)
parameters (1749)	waves%codeparam%parameters (string) (7.9.3.1.4)
output_diag (1749)	waves%codeparam%output_diag (string) (7.9.3.1.4)
output_flag (1749)	waves%codeparam%output_flag (integer) (7.9.3.1.3)
time (1731)	waves%time (float) (7.9.3.1.2)

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7.9.4 4.10a

7.9.4.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.4.1.1 Primitive Types

Clear definitions required.

7.9.4.1.2 float

7.9.4.1.3 integer

7.9.4.1.4 string

7.9.4.1.5 Array Types

Clear definitions required.

7.9.4.1.6 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.4.1.7 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.4.1.8 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.4.1.9 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.4.1.10 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.4.1.11 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.4.1.12 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.4.1.13 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.4.1.14 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

[560] https://www.efda-itm.eu/ITM/html/cpoinstances__4.09a.html

7.9.4.1.15 vecint_type

Example: [1,2,3]

7.9.4.1.16 vecstring_type

Example: [”aaa”,”bb”,”cccc”]

7.9.4.1.17 Structure Types

7.9.4.1.18 CPO Structures

7.9.4.1.19 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
version	string (7.9.4.1.4)	Version of the data.
source	string (7.9.4.1.4)	Source of the data.
zn	integer (7.9.4.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.4.1.2)	Mass of atom [amu]
zion	vecint_type (7.9.4.1.15)	Ion charge [units of elementary charge]. If negative value, means it is a bundle of charge state which cannot be described as single value. Vector of integers (nchargestates)
state_label	vecstring_type (7.9.4.1.16)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
bundled	integer (7.9.4.1.3)	Flag indicating bundling status. Integer flag: 0=no bundling.
proc_label	vecstring_type (7.9.4.1.16)	Label for process (e.g. EI, RC; could also include error estimates); Vector(nprocs)
tables(:)	tables (7.9.4.1.398)	Rate tables for processes. Vector(nprocs)
tables_coord(:)	tables_coord (7.9.4.1.399)	Array of possible coordinate systems for tables. Vector(ncoordbases)
version_ind(:)	version_ind (7.9.4.1.424)	Array of releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release

7.9.4.1.20 antennas

RF antenna list. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
antenna_ec(:)	antenna_ec (7.9.4.1.66)	Vector of Electron Cyclotron antennas
antenna_ic(:)	antenna_ic (7.9.4.1.67)	Vector of Ion Cyclotron antennas
antenna_lh(:)	antenna_lh (7.9.4.1.68)	Vector of Lower Hybrid antennas
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.21 compositionc

Species description (ions, impurities, neutrals).

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).

7.9.4.1.22 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).

member	type	description
values(:)	coredelta_values (7.9.4.1.109)	Description of the delta term for the various origins. Array of structure (ndelta). Time-dependent
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.23 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into "bundles". Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.4.1.15)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
atomic_data	vecstring_type (7.9.4.1.16)	Reference for the atomic data used for each impurity. Array of strings (nimp)
impurity(:)	impurity_type (7.9.4.1.233)	Array(nimp). Time-dependent
diagnostic	coreimpurediag_type (7.9.4.1.121)	NO DOCS
diagnosticsum	coreimpurediag_sum (7.9.4.1.119)	NO DOCS
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar.

7.9.4.1.24 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
neutcompo	composition_neutrals (7.9.4.1.101)	Description of neutrals species
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
profiles(:)	neutral_complex_type (7.9.4.1.273)	Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent
ioncoeff(:)	coefficients_neutrals (7.9.4.1.83)	Recycling and sputtering coefficients for each ion in composition. Array(nion). Time-dependent
impcoeff(:)	impcoeff (7.9.4.1.231)	Recycling and sputtering coefficients for each impurity ion in desc_impur. Array(nimp). Time-dependent.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.25 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last radial grid point, which is quasi at the Last Closed Flux Surface); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.4.1.14)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.4.1.404)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
psi	psi (7.9.4.1.305)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.4.1.110)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.4.1.111)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.4.1.110)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.4.1.111)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.4.1.111)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.4.1.303)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.4.1.225)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.26 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.4.1.72)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	coresource_values (7.9.4.1.128)	Description of the source terms of various origins. Array of structure (nsource). Time-dependent.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.27 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coretransp_values (7.9.4.1.132)	Description of transport term coming from various origins. Array of structure (ntransp). Time-dependent
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.28 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	cxsetup (7.9.4.1.135)	diagnostic setup information
measure	cxmeasure (7.9.4.1.134)	Measured values

member	type	description
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.29 distribution

Distribution function for electron and ion species. Normally output from a Fokker-Planck calculation; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
distri_vec(:)	distri_vec (7.9.4.1.167)	Vector over all distribution functions; Time-dependent. Structure array(ndistri_vec)
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.30 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.4.1.104)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
source(:)	distsource_source (7.9.4.1.172)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; scalar

7.9.4.1.31 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	ecesetup (7.9.4.1.176)	diagnostic setup information
measure	ecemeasure (7.9.4.1.175)	Measured values
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.32 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
grid	complexgrid (7.9.4.1.87)	Grid description
species(:)	species_desc (7.9.4.1.387)	Description of ion species. Array of structures(nspecies)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
fluid	edge_fluid (7.9.4.1.177)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.4.1.183)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.33 efcc

Error field correction coils. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item

member	type	description
coil(:)	coil (7.9.4.1.85)	Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.4.1.82)	Code parameters

7.9.4.1.34 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
eqconstraint	eqconstraint (7.9.4.1.190)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.4.1.191)	Geometry of the plasma boundary
flush	flush (7.9.4.1.201)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.4.1.224)	0d output parameters
profiles_1d	profiles_1d (7.9.4.1.304)	output profiles as a function of the poloidal flux
profiles_2d(:)	equilibrium_profiles_2d (7.9.4.1.195)	Output profiles in the poloidal plane. Time-dependent
coord_sys	coord_sys (7.9.4.1.106)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.4.1.82)	Code parameters

7.9.4.1.35 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
fus_product(:)	fusiondiag_fus_product (7.9.4.1.219)	Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.36 halphadiag

H/D alpha line integrated diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	halpha_setup (7.9.4.1.228)	setup for the lines of sight of the line integrated measurement
intensity	exp1D (7.9.4.1.197)	Measured light intensity (a.u.). Time-dependent. Vector (nlos)
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.37 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
expression	string (7.9.4.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.4.1.373)	Geometric description of the lines of sight
measure	exp1D (7.9.4.1.197)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.38 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item

member	type	description
desc_iron	desc_iron (7.9.4.1.141)	Description of the iron segments
magnetise	magnetise (7.9.4.1.254)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.39 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
potential	lang_measure (7.9.4.1.239)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.4.1.239)	Biasing potential [V]. All children are vectors(bias)
jsat	lang_measure (7.9.4.1.239)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.4.1.238)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.4.1.238)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.4.1.238)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.40 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
name	vecstring_type (7.9.4.1.16)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.4.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.4.1.14)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.4.1.15)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.4.1.342)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.4.1.389)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.4.1.243)	Beam characteristics
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.41 limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
limiter_unit(:)	limiter_unit (7.9.4.1.247)	Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

7.9.4.1.42 lithiumdiag

Lithium Beam Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	lithsetup (7.9.4.1.250)	diagnostic setup information
measure	lithmeasure (7.9.4.1.249)	Measured values
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.43 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
ip	exp0D (7.9.4.1.196)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.4.1.196)	Diamagnetic flux [Wb]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.4.1.202)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.4.1.80)	Poloidal field probes
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.44 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
n	vecint_type (7.9.4.1.15)	Toroidal mode number; Time-dependent; Vector (nn)
frequency	vecflt_type (7.9.4.1.14)	Frequency of the mode [Hz]; Time-dependent; Vector (nn)
growthrate	vecflt_type (7.9.4.1.14)	Linear growthrate of the mode [Hz]; Time-dependent; Vector (nn)
plasma	mhd_plasma (7.9.4.1.258)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.4.1.260)	External modes
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.4.1.82)	Code parameters

7.9.4.1.45 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
polarimetry	polarimetry (7.9.4.1.300)	This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.
spectral	spectral (7.9.4.1.388)	This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.46 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
nbi_unit(:)	nbi_unit (7.9.4.1.271)	Vector of Neutral Beam Injector units. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.47 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.4.1.140)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.4.1.104)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
ni_neo	transcoefion (7.9.4.1.408)	Neoclassical transport coefficients for ion density equation. Time-dependent.

member	type	description
ne_neo	transcoefel (7.9.4.1.406)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo(:)	transcoefimp (7.9.4.1.407)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.4.1.408)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.4.1.406)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo(:)	transcoefimp (7.9.4.1.407)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.4.1.406)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.4.1.14)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.4.1.14)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.4.1.14)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.4.1.12)	Neoclassical poloidal rotation of for each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.4.1.6)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.4.1.14)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.4.1.82)	Code parameters

7.9.4.1.48 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
com	com (7.9.4.1.86)	COM (Constants Of Motion) parameters identifying an orbit
trace	trace (7.9.4.1.405)	Position of particle in 5D space (3D in real and 2D in velocity).
global_param	orbit_global_param (7.9.4.1.280)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.49 pellets

Pellet injectors and diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
toroid_field	b0r0 (7.9.4.1.72)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho in this CPO.
species	species (7.9.4.1.386)	Pellet composition
shape	shape (7.9.4.1.374)	Pellet shape
pelletpath	pelletpath (7.9.4.1.286)	Description of the flight path of the pellet (assumed a straight line)
velocity	float (7.9.4.1.2)	Pellet injection velocity (m/s). Time-dependent. Scalar
ablationrate	ablationrate (7.9.4.1.65)	Ablation rate data [particle/s]. Formally the ablation rate profile only makes sense after the pellet has fully penetrated inside the plasma. The assignement of a suitable time stamp to the profile should be made either to time of maximum penetration or to the mean of the time window of pellet lifetime. In the modelling however, the reference time is the time when the pellet crosses the separatrix. Time-dependent. Vector (npos)
deposprofile	deposprofile (7.9.4.1.138)	Deposition profile (m^-3). This deposition profile only makes sense after the ablated pellet cloud interacts via some transport processes with the plasma. This is why we add a time delay stamp to the profile in reference to the ablation rate profile. Time-dependent. Vector (npos)
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.50 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
pfcoils	pfcoils (7.9.4.1.289)	Active poloidal field coils
pfpassive	pfpassive (7.9.4.1.293)	Passive axisymmetric conductor description

member	type	description
pfcircuits	pfcircuits (7.9.4.1.288)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.4.1.294)	PF power supplies
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.51 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
expression	string (7.9.4.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.4.1.373)	Geometric description of the lines of sight
measure	exp1D (7.9.4.1.197)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.52 reference

Set of generic reference signals (for input e.g. to a controller); Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
non_timed	ref_nt (7.9.4.1.310)	Time-independent references (parameters)
timed	ref_t (7.9.4.1.321)	Time-dependent references
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.53 rfadiag

Retarding field analyser Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	rfasetup (7.9.4.1.333)	diagnostic setup information
measure	rfameasure (7.9.4.1.332)	Measured values
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.54 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
crash_trig	integer (7.9.4.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.4.1.348)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.4.1.347)	NO DOCS
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.55 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
centre	scenario_centre (7.9.4.1.349)	central values of the profiles (at magnetic axis)

member	type	description
composition	scenario_composition (7.9.4.1.350)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.4.1.351)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.4.1.352)	characteristic confinement times
currents	scenario_currents (7.9.4.1.353)	data related to current sources and current diffusion
edge	scenario_edge (7.9.4.1.354)	edge value (@ LCMS)
energy	scenario_energy (7.9.4.1.355)	plasma energy content
eqgeometry	eqgeometry (7.9.4.1.191)	Geometry of the plasma boundary
global_param	scenario_global (7.9.4.1.356)	Global scalar values
heat_power	scenario_heat_power (7.9.4.1.357)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.4.1.359)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.4.1.360)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.4.1.361)	line averaged value
neutron	scenario_neutron (7.9.4.1.362)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.4.1.363)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.4.1.364)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.4.1.367)	References
reactor	scenario_reactor (7.9.4.1.365)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.4.1.368)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.4.1.369)	volume averaged value
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.56 summary

Set of reduced data summarising the main simulation parameters for the data base catalogue. CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
ip	reduced (7.9.4.1.309)	Plasma current [A]
bvac_r	reduced (7.9.4.1.309)	Vacuum field times radius in the toroidal field magnet [T.m];
geom_axis_r	reduced (7.9.4.1.309)	Major radius of the geometric axis [m]
a_minor	reduced (7.9.4.1.309)	Minor radius of the plasma boundary [m]
elongation	reduced (7.9.4.1.309)	Elongation of the plasma boundary [m]
tria_lower	reduced (7.9.4.1.309)	Lower triangularity of the plasma boundary [m]
tria_upper	reduced (7.9.4.1.309)	Upper triangularity of the plasma boundary [m]
tev	reduced (7.9.4.1.309)	volume averaged electron temperature [eV]
tiv	reduced (7.9.4.1.309)	volume averaged ion temperature [eV]
nev	reduced (7.9.4.1.309)	volume averaged electron density [m^-3]
zeffv	reduced (7.9.4.1.309)	volume averaged effective charge
beta_pol	reduced (7.9.4.1.309)	poloidal beta
beta_tor	reduced (7.9.4.1.309)	toroidal beta
beta_normal	reduced (7.9.4.1.309)	normalised beta
li	reduced (7.9.4.1.309)	internal inductance
volume	reduced (7.9.4.1.309)	total plasma volume [m^3]
area	reduced (7.9.4.1.309)	area poloidal cross section [m^2]
main_ion1_z	reduced (7.9.4.1.309)	Atomic number of the main ion #1 [a.m.u.]
main_ion1_a	reduced (7.9.4.1.309)	Atomic mass of the main ion #1 [a.m.u.]
main_ion2_z	reduced (7.9.4.1.309)	Atomic number of the main ion #2 [a.m.u.]
main_ion2_a	reduced (7.9.4.1.309)	Atomic mass of the main ion #2 [a.m.u.]
impur1_z	reduced (7.9.4.1.309)	Atomic number of the impurity #1 [a.m.u.]
impur1_a	reduced (7.9.4.1.309)	Atomic mass of the impurity #1 [a.m.u.]

member	type	description
time	float (7.9.4.1.2)	Time at which the 0D variables of the summary are taken [s]. Scalar

7.9.4.1.57 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.4.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.4.1.4)	Pulse/Entry description
firstputdate	string (7.9.4.1.4)	Date of the original data submission
lastupdate	string (7.9.4.1.4)	Date of the last data addition in the tree
source	string (7.9.4.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.4.1.4)	Any additional comment
dataversion	string (7.9.4.1.4)	Version of the data structure
workflow	string (7.9.4.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.4.1.188)	Definition of this database entry
parent_entry	entry_def (7.9.4.1.188)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.4.1.256)	Information related to machine description for this entry

7.9.4.1.58 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.4.1.400)	Description of the toroidal field coils
nturns	integer (7.9.4.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.4.1.3)	Number of packets of coils
current	exp0D (7.9.4.1.196)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.4.1.196)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.4.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.4.1.2)	Time [s]; Time-dependent. Scalar.

7.9.4.1.59 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
setup	tssetup (7.9.4.1.411)	diagnostic setup information
measure	tsmeasure (7.9.4.1.410)	Measured values
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.60 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
composition	turbcomposition (7.9.4.1.412)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.4.1.413)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.4.1.417)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.4.1.418)	Dependent variable radial profile.
var2d	turbvar2d (7.9.4.1.419)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.4.1.420)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.4.1.421)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.
var5d	turbvar5d (7.9.4.1.422)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
spec1d	turbspec1d (7.9.4.1.416)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.4.1.414)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar.

7.9.4.1.61 vessel

Mechanical structure of the vacuum vessel. CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
position	rz1D (7.9.4.1.336)	Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints)

7.9.4.1.62 wall

General Wall representation. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
wall2d_mhd	wall2d_mhd (7.9.4.1.426)	Simplified wall that encloses necessary information for RWM codes.
wall2d(:)	wall2d (7.9.4.1.425)	2D wall type. Structure array. Replicate this element for each type of possible physics configurations necessary (single contour limiter, disjoints gapped plasma facing components)
wall3d(:)	wall3d (7.9.4.1.427)	A 3D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas thight vs wall with ports and holes)
plasma	plasma (7.9.4.1.297)	Plasma flux from/to plasma facing wall surfaces
surface	surface (7.9.4.1.396)	State of plasma facing wall surfaces
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.63 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.4.1.84)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.4.1.82)	Code parameters
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.64 Utility Structures

7.9.4.1.65 ablationrate

Ablation rate data [particle/s]. Formally the ablation rate profile only makes sense after the pellet has fully penetrated inside the plasma. The assignement of a suitable time stamp to the profile should be made either to time of maximum penetration or to the mean of the time window of pellet lifetime. In the modelling however, the reference time is the time when the pellet crosses the separatrix. Time-dependent. Vector (npos)

member	type	description
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rate	vecflt_type (7.9.4.1.14)	Calculated ablation rate; (particle/s)
position	rzphi1D (7.9.4.1.342)	Coordinates for abblation rate

Type of: pellets:ablationrate (2094)

7.9.4.1.66 antenna_ec

Vector of Electron Cyclotron antennas

member	type	description
name	string (7.9.4.1.4)	Antenna name

member	type	description
frequency	float (7.9.4.1.2)	Frequency [Hz]
power	exp0D (7.9.4.1.196)	Power [W]; Time-dependent
mode	integer (7.9.4.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.4.1.341)	Launching position in the global reference system; Time-dependent
launchangles	launchangles (7.9.4.1.240)	Launching angles of the beam
beam	rfbeam (7.9.4.1.334)	Beam characteristics at the launching position
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: antennas:antenna_ec (2065)

7.9.4.1.67 antenna_ic

Vector of Ion Cyclotron antennas

member	type	description
name	string (7.9.4.1.4)	Antenna name; String
frequency	exp0D (7.9.4.1.196)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.4.1.196)	Power [W]; Time-dependent; Exp0d
setup	antennaic_setup (7.9.4.1.69)	Detailed description of IC antennas
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: antennas:antenna_ic (2065)

7.9.4.1.68 antenna_lh

Vector of Lower Hybrid antennas

member	type	description
name	string (7.9.4.1.4)	Antenna name, String
frequency	float (7.9.4.1.2)	Frequency [Hz]
power	exp0D (7.9.4.1.196)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.4.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.4.1.341)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.4.1.70)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.4.1.298)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.4.1.334)	Beam characteristics
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: antennas:antenna_lh (2065)

7.9.4.1.69 antennaic_setup

Detailed description of ICRH antennas

member	type	description
straps(:)	straps (7.9.4.1.395)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

Type of: antenna_ic:setup (2111)

7.9.4.1.70 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.4.1.262)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (2112)

7.9.4.1.71 array3dcplx_type

Temporary structure for real and imaginary part of complex numbers (3D)

member	type	description
re	array3dflt_type (7.9.4.1.6)	Real part
im	array3dflt_type (7.9.4.1.6)	Imaginary part

Type of: complexgrid_scalar_cplx:matrix (2137) I mhd_plasma:disp_par (2302) I mhd_plasma:disp_perp (2302) I mhd_plasma:p_pert (2302) I mhd_plasma:rho_mass_pert (2302) I mhd_plasma:temp_pert (2302) I mhd_vector:coord1 (2305) I mhd_vector:coord2 (2305) I mhd_vector:coord3 (2305)

7.9.4.1.72 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.4.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.4.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: coresource:toroid_field (2071) I global_param:toroid_field (2268) I pellets:toroid_field (2094) I waves_global_param:to (2479)

7.9.4.1.73 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.4.1.342)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.4.1.14)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.4.1.14)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.4.1.14)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: setup_inject:beamlets (2416)

7.9.4.1.74 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.4.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.4.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.4.1.14)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.4.1.14)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent
position	waves_rtposition (7.9.4.1.440)	Ray/beam position
wavevector	waves_rtwavevector (7.9.4.1.441)	Ray/beam wave vector.
polarization	polarization (7.9.4.1.301)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.4.1.302)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (2128)

7.9.4.1.75 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.4.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.4.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.4.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: psi:boundary (2349)

7.9.4.1.76 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array1D(3)
type	integer (7.9.4.1.3)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Int
rho_tor	float (7.9.4.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Float.

Type of: corefieldneutral:boundary (2156) I corefieldneutrale:boundary (2157) I corefieldneutralv:boundary (2158)

7.9.4.1.77 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.4.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.4.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.4.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (2154)

7.9.4.1.78 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	matflt_type (7.9.4.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 2D (3,nzimp)
source	string (7.9.4.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	vecint_type (7.9.4.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nzimp)

member	type	description
rho	vecflt_type (7.9.4.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nzimp)
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: impurity_type:boundary (2277)

7.9.4.1.79 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.4.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.4.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.4.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.4.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (2155)

7.9.4.1.80 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.4.1.370)	diagnostic setup information
measure	exp1D (7.9.4.1.197)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (2088)

7.9.4.1.81 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.4.1.335)	Circular coil centre
hlength	float (7.9.4.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.4.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (2444)

7.9.4.1.82 codeparam

Code parameters

member	type	description
codename	string (7.9.4.1.4)	Name of the code
codeversion	string (7.9.4.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.4.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.4.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.4.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: antenna_ec:codeparam (2110) I antenna_ic:codeparam (2111) I antenna_lh:codeparam (2112) I antennas:codeparam (2065) I boundary:codeparam (2119) I boundaryimp:codeparam (2122) I coherentwave:codeparam (2128) I coredelta:codeparam (2067) I coredelta_values:codeparam (2153) I corefield:codeparam (2154) I corefieldion:codeparam (2155) I coreimpur:codeparam (2068) I coreneutrals:codeparam (2069) I coreprof:codeparam (2070) I coresource:codeparam (2071) I coresource_values:codeparam (2172) I coretransp:codeparam (2072) I coretransp_values:codeparam (2176) I distri_vec:codeparam (2211) I distribution:codeparam (2074) I distsource:codeparam (2075) I distsource_source:codeparam (2216) I edge:codeparam (2077) I efcc:codeparam (2078) I equilibrium:codeparam (2079) I flush:codeparam (2245) I fusiondiag:codeparam (2080) I fusiondiag_fus_product:codeparam (2263) I langmuirdiag:codeparam (2084) I launchs:codeparam (2085) I mhd:codeparam (2089) I nbi:codeparam (2091) I nbi_unit:codeparam (2315) I neoclassic:codeparam (2092) I orbit:codeparam (2093) I pellets:codeparam (2094) I psi:codeparam (2349) I sawteeth:codeparam (2099) I scenario:codeparam (2100) I spectral:codeparam (2432) I turbulence:codeparam (2105) I waves:codeparam (2108)

7.9.4.1.83 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The particular causing ion or impurity charge state is determined by the path.

member	type	description
recycling	recycling_neutrals (7.9.4.1.308)	Recycling coefficients
sputtering	sputtering_neutrals (7.9.4.1.391)	Sputtering coefficients

Type of: coreneutrals:ioncoeff (2069) I impcoeff:chargestate (2275)

7.9.4.1.84 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
wave_id	enum_instance (7.9.4.1.189)	Identifier for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC; the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.
composition	composition (7.9.4.1.100)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.4.1.104)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
global_param	waves_global_param (7.9.4.1.435)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.4.1.436)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.4.1.437)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.4.1.438)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.4.1.439)	2D profiles in poloidal cross-section
beamtracing(:)	beamtracing (7.9.4.1.74)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.4.1.206)	Solution by full wave code
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: waves:coherentwave (2108)

7.9.4.1.85 coil

Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.

member	type	description
desc_coils	desc_coils (7.9.4.1.139)	Description of the coils
coilcurrent	exp1D (7.9.4.1.197)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the geometry description [A]; Time-dependent
coilvoltage	exp1D (7.9.4.1.197)	Voltage on the full coil [V]; Time-dependent

Type of: efcc:coil (2078)

7.9.4.1.86 com

COM (Constants Of Motion) parameters identifying an orbit

member	type	description
amn	float (7.9.4.1.2)	Atomic mass of the particle; Scalar
zion	float (7.9.4.1.2)	Atomic charge of the particle; Scalar
energy	vecflt_type (7.9.4.1.14)	Energy of the particle [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.4.1.14)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.4.1.14)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.4.1.15)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:com (2093)

7.9.4.1.87 complexgrid

Generic definition of a complex grid

member	type	description
uid	integer (7.9.4.1.3)	Unique index of this grid. Used for handling multiple grids
id	string (7.9.4.1.4)	Name / identifier string for this grid
spaces(:)	complexgrid_space (7.9.4.1.96)	Definitions of grid spaces. Array of structures (number of spaces)
subgrids(:)	complexgrid_subgrid (7.9.4.1.97)	Definitions of subgrids. Array of structures (number of subgrids)
metric	complexgrid_metric (7.9.4.1.90)	Metric coefficients
geo(:)	complexgrid_geo_global (7.9.4.1.88)	Geometry data for implicit objects
bases(:)	complexgrid_vector (7.9.4.1.98)	Vector bases. Used for aligned vector representation. Array of structures (number of bases)

Type of: edge:grid (2077) I f_expansion:grid (2243) I fullwave:grid (2250) I source_rate:grid (2425) I wall3d:grid (2471)

7.9.4.1.88 complexgrid_geo_global

Geometry information for implicitly defined grid objects (which cannot be stored in the space definitions); Array of structures (number of alternate geometries).

member	type	description
geotype	integer (7.9.4.1.3)	Type of geometry (id flag). A flag defining how the geometry data associated with grid objects is to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.4.1.4)	Type of geometry (id string).
coordtype	vecint_type (7.9.4.1.15)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
geo_matrix(:)	complexgrid_scalar (7.9.4.1.92)	Geometry data matrix associated with implicit objects. Array of structures (number of subgrids this information is stored on); The exact definition of the stored values depends on the geometry type of the geometry complexgrid_geo_global.geotype;
measure(:)	complexgrid_scalar (7.9.4.1.92)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects) in this geometry. [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:geo (2131)

7.9.4.1.89 complexgrid_indexlist

An index list describing a list of indices or a range of indices.; If the explicit index list ind is defined and has nonzero size, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.4.1.15)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). If additionally a third value range(3) is given, it is used as a stride. If it is omitted, a stride of 1 is assumed. Vector(3)
ind	vecint_type (7.9.4.1.15)	An explicit list of indices. If this member is defined and has nonzero size, the list is assumed to be explicit. Vector(length of explicit index list)

Type of: complexgrid_objectlist:indset (2135)

7.9.4.1.90 complexgrid_metric

Metric information for grid objects

member	type	description
measure(:)	complexgrid_scalar (7.9.4.1.92)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)
g11(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g11. Array of structures (number of subgrids this information is stored on)
g12(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g12. Array of structures (number of subgrids this information is stored on)
g13(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g13. Array of structures (number of subgrids this information is stored on)
g22(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g22. Array of structures (number of subgrids this information is stored on)
g23(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g23. Array of structures (number of subgrids this information is stored on)
g33(:)	complexgrid_scalar (7.9.4.1.92)	Metric coefficients g33. Array of structures (number of subgrids this information is stored on)
jacobian(:)	complexgrid_scalar (7.9.4.1.92)	Jacobian. Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:metric (2131)

7.9.4.1.91 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list is explicit if the matrix ind is given and has nonzero size. In this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are defined by a list of index lists stored in indset.

member	type	description
cls	vecint_type (7.9.4.1.15)	Class tuple of the grid objects in this object list. Vector (number of grid spaces)
indset(:)	complexgrid_indexlist (7.9.4.1.89)	Implicit list of the object indices.; Array of structures (number of grid spaces = length of index tuple). Every index of the index tuple is described by an index set, which defines either a list of index values or a range of index values.
ind	matint_type (7.9.4.1.13)	Explicit list of index tuples. Matrix (number of objects, number of spaces in grid).; First dimension: object index, second dimension: index tuple/space index.; If this field is defined and has nonzero size, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (2141)

7.9.4.1.92 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.4.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.4.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.4.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.

member	type	description
matrix	array3dflt_type (7.9.4.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_geo_global:geo_matrix (2132) I complexgrid_geo_global:measure (2132) I complexgrid_metric:g11 (2134) I complexgrid_metric:g12 (2134) I complexgrid_metric:g13 (2134) I complexgrid_metric:g22 (2134) I complexgrid_metric:g23 (2134) I complexgrid_metric:g33 (2134) I complexgrid_metric:jacobian (2134) I complexgrid_metric:measure (2134) I complexgrid_vector:comp (2142) I complexgrid_vector_simplestruct:comp (2143) I edge_fluid_scalar:bndvalue (2222) I edge_fluid_scalar:source (2222) I edge_fluid_scalar:value (2222) I edge_fluid_scalar_simple (2223) I edge_fluid_scalar_simplestruct:source (2223) I edge_fluid_scalar_simplestruct:value (2223) I edge_kinetic_distribution (2228) I edge_kinetic_distribution:source (2228) I edge_kinetic_distribution:value (2228) I f_expansion:values (2243) I plasma:energy (2341) I plasma:flux (2341) I source_rate:value (2425)

7.9.4.1.93 complexgrid_scalar_cplx

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.4.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	veccplx_type (7.9.4.1.423)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Complex Vector(nobjects_subgrid). First dimension: object index.
vector	matcplx_type (7.9.4.1.255)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Complex matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dcplx_type (7.9.4.1.71)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d complex array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: e_components:b_binorm (2218) I e_components:b_norm (2218) I e_components:b_para (2218) I e_components:e_binor (2218) I e_components:e_minus (2218) I e_components:e_norm (2218) I e_components:e_para (2218) I e_components:e_plus (2218)

7.9.4.1.94 complexgrid_scalar_int

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.4.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecint_type (7.9.4.1.15)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matint_type (7.9.4.1.13)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dint_type (7.9.4.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: surface:wall_type (2440)

7.9.4.1.95 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.4.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.4.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.4.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.4.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.4.1.96 complexgrid_space

Description of a grid space

member	type	description
geotype	vecint_type (7.9.4.1.15)	Type of space geometry (id flags). Flags defining how the geometry (objects.geo) fields associated with; space objects are to be interpreted. Array (number of geometries defined for this space),; first dimension: geometry index. A flag value of GRID_UNDEFINED=0 indicates the standard interpretation for; the given coordinates.
geotypeid	vecstring_type (7.9.4.1.16)	Type of space geometries (id string). See geotype.
coordtype	matint_type (7.9.4.1.13)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
objects(:)	objects (7.9.4.1.276)	Definition of the space objects.; Array of structures (dimension of highest-dimensional objects).; First dimension: dimension of the objects (1=nodes, 2=edges, 3=faces, 4=cells/volumes, ...)
xpoints	vecint_type (7.9.4.1.15)	List of indices of all nodes which are x-points. Vector (number of x-points)

Type of: complexgrid:spaces (2131)

7.9.4.1.97 complexgrid_subgrid

Subgrid definition. A subgrid is a list of grid objects, given as a list of explict or implicit object lists.

member	type	description
id	string (7.9.4.1.4)	ID string (name) of the subgrid.
list(:)	complexgrid_objectlist (7.9.4.1.91)	List of object lists. Array of structures (number of object lists).

Type of: complexgrid:subgrids (2131)

7.9.4.1.98 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this vector quantity is associated with.
label	string (7.9.4.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.4.1.92)	Components of the vector. Array of structures (number of vector components). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.4.1.15)	Alignment flag for vector components. Integer vector (number of vector components).
alignid	vecstring_type (7.9.4.1.16)	Alignment id for vector components. String vector (number of vector components).
basis	integer (7.9.4.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.

Type of: complexgrid:bases (2131) I edge_fluid:b (2221) I edge_fluid_scalar:bndflux (2222) I edge_fluid_scalar:flux (2222) I edge_fluid_scalar_simplestruct:bndflux (2223) I edge_fluid_scalar_simplestruct:flux (2223) I edge_kinetic_distribution (2228)

7.9.4.1.99 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.4.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.4.1.92)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.4.1.15)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.4.1.16)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (2224) I edge_fluid_scalar_transpcoeff:v (2224) I plasma:b (2341)

7.9.4.1.100 composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.4.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.4.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.4.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.4.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	vecstring_type (7.9.4.1.16)	Label for the ions - note the charge state is not included; String Vector (nion)

Type of: coherentwave:composition (2128) I coredelta:composition (2067) I coreneutrals:composition (2069) I coreprof:composition (2070) I coresource:composition (2071) I coretransp:composition (2072) I distribution:composition (2074) I distsource:composition (2075) I neoclassic:composition (2092) I sawteeth:composition (2099)

7.9.4.1.101 composition_neutrals

Description of neutrals species

member	type	description
atomlist(:)	coreneutrals_atomlist (7.9.4.1.124)	List of the atoms that enter the composition of the neutral species. Vector(natm)
neutral(:)	composition_neutralscomp (7.9.4.1.103)	List of neutrals. Vector(nneut)

Type of: coreneutrals:neutcompo (2069)

7.9.4.1.102 composition_neutrals_neutcomp

Array of components to the atom or molecule. Vector (ncomp)

member	type	description
nucindex	integer (7.9.4.1.3)	Index into list of nuclei; int
multiplicity	integer (7.9.4.1.3)	Multiplicity of the atom; int

Type of: composition_neutralscomp:neutcomp (2147)

7.9.4.1.103 composition_neutralscomp

Array of neutrals.

member	type	description
neutcomp(:)	composition_neutrals_neutcomp (7.9.4.1.102)	Array of components to the atom or molecule. Vector (ncomp)
type(:)	identifier (7.9.4.1.230)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Vector (ntype) of identifiers
label	string (7.9.4.1.4)	String identifying the atom or molecule (e.g. D2, DT, CD4, ...)

Type of: composition_neutrals:neutral (2145) I compositions_type:neutralscomp (2148)

7.9.4.1.104 compositions_type

Attempt to a generic declaration of Plasma composition for a simulation

member	type	description
nuclei(:)	nuclei (7.9.4.1.275)	Array of nuclei considered.
ions(:)	ions (7.9.4.1.235)	Array of main plasma ions.
impurities(:)	impurities (7.9.4.1.232)	Array of impurities.
neutralscomp(:)	composition_neutralscomp (7.9.4.1.103)	Array of neutrals.
edgespecies(:)	edgespecies (7.9.4.1.186)	Array of edge species.
signature	identifier (7.9.4.1.230)	Identifier for species choices. The goal of this is to uniquely capture the species blocks so that if the signatures are the same then the species blocks will also be the same.

Type of: coherentwave:compositions (2128) I compositionc:compositions (2066) I coredelta:compositions (2067) I coreimpur:compositions (2068) I coreneutrals:compositions (2069) I coreprof:compositions (2070) I coresource:compositions (2071) I coretransp:compositions (2072) I distribution:compositions (2074) I distsource:compositions (2075) I edge:compositions (2077) I neoclassic:compositions (2092)

7.9.4.1.105 compound_desc

Description of chemical compounds used in wall element layer compositions

member	type	description
label	string (7.9.4.1.4)	Compound name/label
stochiometry	vecflt_type (7.9.4.1.14)	Composition of the compound. Float vector, dimensions: 1. element number (numbering as in surface.elements array)
density	float (7.9.4.1.2)	Compound density (molecules/m^3)

Type of: surface:compounds (2440)

7.9.4.1.106 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.4.1.4)	Type of coordinate system
grid	reggrid (7.9.4.1.331)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.4.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.4.1.12)	metric coefficients g_11; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.4.1.12)	metric coefficients g_12; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.4.1.12)	metric coefficients g_13; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.4.1.12)	metric coefficients g_22; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.4.1.12)	metric coefficients g_23; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.4.1.12)	metric coefficients g_33; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.4.1.339)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (2079) I mhd_plasma:coord_sys (2302) I mhd_vacuum:coord_sys (2304)

7.9.4.1.107 coordinates

Poloidal and Toroidal coordinates of the center of each hole;

member	type	description
theta	vecflt_type (7.9.4.1.14)	Theta coordinate of holes center; Vector (n_holes)
phi	vecflt_type (7.9.4.1.14)	Toroidal coordinate of holes center; Vector (n_holes)

Type of: holes:coordinates (2273)

7.9.4.1.108 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description
coord	vecflt_type (7.9.4.1.14)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.4.1.16)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.4.1.15)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.4.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.4.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.4.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.4.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.4.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (2443)

7.9.4.1.109 coredelta_values

Description of the delta term for a given origin

member	type	description
deltaid	identifier (7.9.4.1.230)	Identifier for the origin of the delta terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
delta_psi	vecflt_type (7.9.4.1.14)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.4.1.14)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.4.1.12)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.4.1.6)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.4.1.14)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.4.1.12)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.4.1.6)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.4.1.12)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coredelta:values (2067)

7.9.4.1.110 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.4.1.14)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.4.1.14)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Vector (nrho)
ddt	vecflt_type (7.9.4.1.14)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Vector (nrho)
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.4.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.4.1.77)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.4.1.383)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.4.1.129)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.4.1.203)	Fluxes of the quantity, two definitions. Time-dependent.

member	type	description
flux_dv_surf	vecflt_type (7.9.4.1.14)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Vector (nrho)
time_deriv	vecflt_type (7.9.4.1.14)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coreprof:ne (2070) I coreprof:te (2070)

7.9.4.1.111 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.4.1.12)	Signal value; Time-dependent; Matrix (nrho,nion)
ddrho	matflt_type (7.9.4.1.12)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
d2drho2	matflt_type (7.9.4.1.12)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Matrix (nrho,nion)
ddt	matflt_type (7.9.4.1.12)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.4.1.15)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.4.1.79)	Boundary condition for the transport equation
source_term	sourceion (7.9.4.1.385)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.4.1.131)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.4.1.205)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	matflt_type (7.9.4.1.12)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Matrix(nrho,nion)
time_deriv	matflt_type (7.9.4.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coreprof:ni (2070) I coreprof:ti (2070) I coreprof:vtor (2070)

7.9.4.1.112 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.4.1.14)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.4.1.76)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:n0 (2169)

7.9.4.1.113 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.4.1.14)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.4.1.76)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:t0 (2169)

7.9.4.1.114 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Vector(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.4.1.76)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (2159) I corefieldneutralv0:radial (2159) I corefieldneutralv0:toroidal (2159)

7.9.4.1.115 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.4.1.114)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.4.1.114)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.4.1.114)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: coreneutrals_neutraltype:v0 (2169)

7.9.4.1.116 coreimpurdiag_sum_radiation

member	type	description
line_rad	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS
brem_radrec	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS
sum	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS

Type of: coreimpurediag_sum:radiation (2163)

7.9.4.1.117 coreimpurediag_energy

member	type	description
ionization	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS
recombin	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS
sum	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS

Type of: coreimpurediag_type:energy (2165)

7.9.4.1.118 coreimpurediag_radiation

member	type	description
line_rad	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS
brem_radrec	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS
sum	coreimpurediagprof_type (7.9.4.1.122)	NO DOCS

Type of: coreimpurediag_type:radiation (2165)

7.9.4.1.119 coreimpurediag_sum

member	type	description
radiation	coreimpurdiag_sum_radiation (7.9.4.1.116)	NO DOCS
energy	coreimpurediag_sum_energy (7.9.4.1.120)	NO DOCS

Type of: coreimpur:diagnosticsum (2068)

7.9.4.1.120 coreimpurediag_sum_energy

member	type	description
ionization	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS
recombin	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS
sum	coreimpurediagsum_type (7.9.4.1.123)	NO DOCS

Type of: coreimpurediag_sum:energy (2163)

7.9.4.1.121 coreimpurediag_type

member	type	description
radiation	coreimpurediag_radiation (7.9.4.1.118)	NO DOCS
energy	coreimpurediag_energy (7.9.4.1.117)	NO DOCS

Type of: coreimpur:diagnostic (2068) I impurity_type:diagnostic (2277)

7.9.4.1.122 coreimpurediagprof_type

member	type	description
profile	matflt_type (7.9.4.1.12)	Profile of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)
integral	matflt_type (7.9.4.1.12)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)

Type of: coreimpurediag_energy:ionization (2161) I coreimpurediag_energy:recombin (2161) I coreimpurediag_energy:sum (2161) I coreimpurediag_radiation:brem_radrec (2162) I coreimpurediag_radiation:line_rad (2162) I coreimpurediag_radiation:sum (2162)

7.9.4.1.123 coreimpurediagsum_type

member	type	description
profile	vecflt_type (7.9.4.1.14)	Profile of the radiation or energy sources. Time-dependent. Array1D (nrho)
integral	vecflt_type (7.9.4.1.14)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array1D (nrho)

Type of: coreimpurdiag_sum_radiation:brem_radrec (2160) I coreimpurdiag_sum_radiation:line_rad (2160) I coreimpurdiag_sum_radiation:sum (2160) I coreimpurediag_sum_energy:ionization (2164) I coreimpurediag_sum_energy:recom (2164) I coreimpurediag_sum_energy:sum (2164)

7.9.4.1.124 coreneutrals_atomlist

List of the atoms that enter the composition of the neutral species. Vector(natm)

member	type	description
amn	float (7.9.4.1.2)	Atomic mass number; Float

member	type	description
zn	float (7.9.4.1.2)	Nuclear charge; Float
ionimptype	identifier (7.9.4.1.230)	Identifier whether ion in coreprof or impurity in coreimpur.
ionimpindex	integer (7.9.4.1.3)	Index in composition or desc_impur of the corresponding ion or impurity.

Type of: composition_neutrals:atomlist (2145)

7.9.4.1.125 coreneutrals_neutraltype

Array (ntype) over neutral types.

member	type	description
n0	corefieldneutral (7.9.4.1.112)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.4.1.113)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.4.1.115)	Neutral velocity [m.s^-1]. Time-dependent;

Type of: neutral_complex_type:neutraltype (2317)

7.9.4.1.126 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (2347) I profiles1d:dpedt (2347) I profiles1d:dpi_totdt (2347) I profiles1d:dvprimedt (2347) I profiles1d:e_b (2347) I profiles1d:eparallel (2347) I profiles1d:jni (2347) I profiles1d:joh (2347) I profiles1d:jphi (2347) I profiles1d:jtot (2347) I profiles1d:pe (2347) I profiles1d:pi_tot (2347) I profiles1d:pr_parallel (2347) I profiles1d:pr_perp (2347) I profiles1d:pr_th (2347) I profiles1d:q (2347) I profiles1d:qei (2347) I profiles1d:shear (2347) I profiles1d:sigmapar (2347) I profiles1d:vloop (2347) I profiles1d:zeff (2347) I psi:sigma_par (2349)

7.9.4.1.127 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.4.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (2347) I profiles1d:ns (2347) I profiles1d:pi (2347) I profiles1d:wtor (2347)

7.9.4.1.128 coresource_values

Description of the source terms for a given origin

member	type	description
sourceid	identifier (7.9.4.1.230)	Identifier for the origin of the source terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
j	vecflt_type (7.9.4.1.14)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.4.1.14)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.4.1.378)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.

member	type	description
se	source_vec (7.9.4.1.382)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz(:)	source_imp (7.9.4.1.377)	Particle source for impurity density transport equation [m^-3.s^-1]. Time-dependent.
qi	source_ion (7.9.4.1.378)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_vec (7.9.4.1.382)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz(:)	source_imp (7.9.4.1.377)	Heat source for impurity heat transport equations [W.m^-3]. Time-dependent.
ui	source_ion (7.9.4.1.378)	Toroidal torque on individual ion species; for toroidal momentum transport equation [kg.m^-1.s^-2]. Time-dependent.
ujxb	source_vec (7.9.4.1.382)	Toroidal JxB torque on bulk plasma; for toroidal momentum transport equation [kg.m^-1.s^-2]. Here J is the return current from fast ion radial currents Jfast=-J. Time-dependent.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coresource:values (2071)

7.9.4.1.129 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.4.1.14)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.4.1.14)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (2154)

7.9.4.1.130 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	matflt_type (7.9.4.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array2D(nrho,nzimp)
vconv	matflt_type (7.9.4.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Array2D (nrho,nzimp)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:transp_coef (2277)

7.9.4.1.131 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.4.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.4.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (2155)

7.9.4.1.132 coretransp_values

Description of transport term coming from various origins. Array of structure (ntransp)

member	type	description
transportid	identifier (7.9.4.1.230)	Identifier for the origin of the transport terms (see conventions in the ITM website)
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
sigma	vecflt_type (7.9.4.1.14)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.4.1.274)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.4.1.272)	Transport coefficients for electron density equation. Time-dependent.

member	type	description
nz_transp(:)	transcoefimp (7.9.4.1.407)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.4.1.408)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.4.1.406)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp(:)	transcoefimp (7.9.4.1.407)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.4.1.409)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coretransp:values (2072)

7.9.4.1.133 cplx_type

Temporary structure for real and imaginary part of complex numbers (scalar)

member	type	description
re	float (7.9.4.1.2)	Real part
im	float (7.9.4.1.2)	Imaginary part

7.9.4.1.134 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.4.1.197)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.4.1.197)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.4.1.197)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (2073)

7.9.4.1.135 cxsetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.4.1.343)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (2073)

7.9.4.1.136 data_release

Stores information about each entry available at this version.

member	type	description
shot	integer (7.9.4.1.3)	Shot number = Mass*100+Nuclear_charge.
run	integer (7.9.4.1.3)	Which run number is the active run number for this version.
description	vecstring_type (7.9.4.1.16)	Possible description of why this version of the data is the current version.

Type of: version_ind:data_release (2468)

7.9.4.1.137 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.4.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.4.1.4)	Date at which the data has been put in the DB
source	string (7.9.4.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.4.1.4)	Any additional comment
cocos	integer (7.9.4.1.3)	COordinates COnventionS followed by this CPO
id	integer (7.9.4.1.3)	CPO id for checking its provenance in the workflow

member	type	description
isref	integer (7.9.4.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.4.1.443)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.4.1.306)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (2064) I antennas:datainfo (2065) I compositionc:datainfo (2066) I coredelta:datainfo (2067) I coreimpur:datainfo (2068) I coreneutrals:datainfo (2069) I coreprof:datainfo (2070) I coresource:datainfo (2071) I coretransp:datainfo (2072) I cxdiag:datainfo (2073) I distribution:datainfo (2074) I distsource:datainfo (2075) I ecediag:datainfo (2076) I edge:datainfo (2077) I efcc:datainfo (2078) I equilibrium:datainfo (2079) I flush:datainfo (2245) I fusiondiag:datainfo (2080) I halphadiag:datainfo (2081) I ironmodel:datainfo (2083) I langmuirdiag:datainfo (2084) I launchs:datainfo (2085) I limiter:datainfo (2086) I lineintegraldiag:datainfo (2292) I lithiumdiag:datainfo (2087) I magdiag:datainfo (2088) I mhd:datainfo (2089) I msediag:datainfo (2090) I nbi:datainfo (2091) I neoclassic:datainfo (2092) I orbit:datainfo (2093) I pellets:datainfo (2094) I pfsystems:datainfo (2095) I reference:datainfo (2097) I rfadiag:datainfo (2098) I sawteeth:datainfo (2099) I scenario:datainfo (2100) I summary:datainfo (2101) I toroidfield:datainfo (2103) I tsdiag:datainfo (2104) I turbulence:datainfo (2105) I vessel:datainfo (2106) I wall:datainfo (2107) I waves:datainfo (2108)

7.9.4.1.138 deposprofile

Deposition profile (m^-3). This deposition profile only makes sense after the ablated pellet cloud interacts via some transport processes with the plasma. This is why we add a time delay stamp to the profile in reference to the ablation rate profile. Time-dependent. Vector (npos)

member	type	description
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
density	vecflt_type (7.9.4.1.14)	Density increase (deposition profile); (m^-3)
position	rzphi1D (7.9.4.1.342)	Coordinates for abblation rate
delay	float (7.9.4.1.2)	Time delay between the deposition profile and the ablation profile; Scalar; Time-dependent (s)

Type of: pellets:deposprofile (2094)

7.9.4.1.139 desc_coils

Description of the coils

member	type	description
name	string (7.9.4.1.4)	Name of coil.
res	float (7.9.4.1.2)	Coil resistance [Ohm]
nturns	integer (7.9.4.1.3)	number of turns inside the coil
closed	string (7.9.4.1.4)	Identify whether the coil is closed (y) or open (n). For closed coils there is no need to replicate the first r,z,phi point as last point
edges(:)	edges (7.9.4.1.185)	Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

Type of: coil:desc_coils (2129)

7.9.4.1.140 desc_impur

Description of the impurities (list of ion species and possibly different charge states)

member	type	description
amn	vecflt_type (7.9.4.1.14)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.4.1.15)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.4.1.15)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.4.1.15)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.4.1.13)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.4.1.13)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)
label	vecstring_type (7.9.4.1.16)	Label for the impurities - note that the charge state is not included; String Vector (nimp)

Type of: coredelta:desc_impur (2067) I coreimpur:desc_impur (2068) I coreneutrals:desc_impur (2069) I coreprof:desc_impur (2070) I coresource:desc_impur (2071) I coretransp:desc_impur (2072) I neoclassic:desc_impur (2092)

7.9.4.1.141 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.4.1.16)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.4.1.287)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.4.1.223)	Geometry of the iron segments

Type of: ironmodel:desc_iron (2083)

7.9.4.1.142 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.4.1.16)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.4.1.14)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.4.1.14)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
nelement	vecint_type (7.9.4.1.15)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.4.1.290)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (2333)

7.9.4.1.143 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.4.1.16)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.4.1.16)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.4.1.14)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.4.1.200)	Laplace proper filter
imin	vecflt_type (7.9.4.1.14)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.4.1.14)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.4.1.14)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.4.1.14)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.4.1.14)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.4.1.14)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (2338)

7.9.4.1.144 diag_func

Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

member	type	description
description	string (7.9.4.1.4)	Short description of the detector with reference to the number of cells (ncells).
transf_mat	matflt_type (7.9.4.1.12)	Transfer matrix of the detector. Each l.o.s. might have a dedicated detector response function and energy resolution (and number of cells). Time-independent. Matrix (ncells,nenergy)

Type of: fusiondiag_detect_ct_energy:diag_func (2260)

7.9.4.1.145 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.4.1.149)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions(:)	topo_regions (7.9.4.1.403)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expan_topo (2190)

7.9.4.1.146 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.

member	type	description
is_delta_f	integer (7.9.4.1.3)	If is_full_f=1, then the distribution represents the deviation from a Maxwellian; is_full_f=0, then the distribution represents all particles, i.e. the full-f solution.
markers	weighted_markers (7.9.4.1.442)	Distribution represented by a set of markers (test particles).
f_expan_topo(:)	dist_ff (7.9.4.1.145)	TO BE REMOVED. KEPT TEMPORARILY AS AN ALTERNATIVE TO f_expansion. [Distribution function, f, expanded into a vector of successive approximations (topology-based formulation, without the grid-cpo). The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)]
f_expansion(:)	f_expansion (7.9.4.1.199)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (2211)

7.9.4.1.147 dist_glob

Global parameters (in most cases volume integrated and surface averaged quanatities).

member	type	description
n_particles	float (7.9.4.1.2)	Number of particles in the distribution (note: this is the number of real particles and not markers); Time-dependent
enrg	float (7.9.4.1.2)	Energy content of the distribution [J]; Time-dependent
enrg_para	float (7.9.4.1.2)	Parallel energy content of the distribution [J]; Time-dependent
pow_coll_i	vecflt_type (7.9.4.1.14)	Collisional power to ions [W]; Time-dependent; Matrix(nion)
pow_coll_e	float (7.9.4.1.2)	Collisional power to the electrons [W]; Time-dependent
therm_src	dist_src_snk_tot (7.9.4.1.164)	Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_glob_dist_losses (7.9.4.1.148)	Losses of the distribution species (orbit losses and neutralisation losses).
cur_dr_tor	float (7.9.4.1.2)	Toroidal current of non-thermal particles (excluding electron back current for fast ions) [A]; Time-dependent.
trq_i	vecflt_type (7.9.4.1.14)	Collisional torque to background ions [N.m]; Time-dependent; Vector (nion)
trq_e	float (7.9.4.1.2)	Collisional torque to electrons [N.m]; Time-dependent
trq_j_rxb	float (7.9.4.1.2)	Torque due to radial currents of non-thermal particles [N.m]; Time-dependent.
nucl_reac_th	dist_nucl_reac_th (7.9.4.1.154)	Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
nucl_reac_sf	dist_nucl_reac_sf (7.9.4.1.153)	Nuclear reactions of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:global_param (2211)

7.9.4.1.148 dist_glob_dist_losses

Losses of the distribution species (orbit losses and neutralisation losses).

member	type	description
orb_loss	dist_src_snk_tot (7.9.4.1.164)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_tot (7.9.4.1.164)	Losses due to neutralisation of distribution ions (charge exchange etc.)

Type of: dist_glob:losses (2191)

7.9.4.1.149 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.4.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)
ngriddim	integer (7.9.4.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.4.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.4.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.4.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf(:)	omnigen_surf (7.9.4.1.279)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (2189)

7.9.4.1.150 dist_input_src

Input sources of particles and power for the distribution species (to aid diagnosing the code output).

member	type	description
particle_src	dist_particle_src (7.9.4.1.155)	Particle source
wave_src	dist_wave_src (7.9.4.1.166)	Auxiliary wave absorbed by the distribution species

Type of: distri_vec:input_src (2211)

7.9.4.1.151 dist_markers

Distribution given as a set of markers (test particles).

member	type	description
nvar	float (7.9.4.1.2)	Number of variables associated with a marker (test particle)
var_id	vecint_type (7.9.4.1.15)	Identification of phase space variables. var_id(K) describe the variable represented in varK, for K=1,2...7. The possible variables are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
var1	vecflt_type (7.9.4.1.14)	Phase space variables one characterising the markers; Time-dependent; Vector (ntpart)
var2	vecflt_type (7.9.4.1.14)	Phase space variables two characterising the markers; Time-dependent; Vector (ntpart)
var3	vecflt_type (7.9.4.1.14)	Phase space variables three characterising the markers; Time-dependent; Vector (ntpart)
var4	vecflt_type (7.9.4.1.14)	Phase space variables four characterising the markers; Time-dependent; Vector (ntpart)
var5	vecflt_type (7.9.4.1.14)	Phase space variables five characterising the markers; Time-dependent; Vector (ntpart)
var6	vecflt_type (7.9.4.1.14)	Phase space variables six characterising the markers; Time-dependent; Vector (ntpart)
var7	vecflt_type (7.9.4.1.14)	Phase space variables seven characterising the markers; Time-dependent; Vector (ntpart)
weight	vecflt_type (7.9.4.1.14)	Weight of the markers; Time-dependent; Vector (ntpart)

7.9.4.1.152 dist_nucl_reac

Information on nuclear reactions involving the calculated species.

member	type	description
point_reac	vecint_type (7.9.4.1.15)	Pointer to a species in composition who can undergo a nuclear reaction with the calculated species; Vector (nreac)
id_reac	vecint_type (7.9.4.1.15)	Identification of the reaction between the calculated species and a background species (including which branch if applicable); Time-dependent; Vector (nreac). Table defining the index of reactions to be provided.

Type of: distri_vec:nucl_reac (2211)

7.9.4.1.153 dist_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	float (7.9.4.1.2)	Reaction rate [1/s]; Time-dependent
power	float (7.9.4.1.2)	Fusion reaction power[W]; Time-dependent

Type of: dist_glob:nucl_reac_sf (2191)

7.9.4.1.154 dist_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	vecflt_type (7.9.4.1.14)	Reaction rate [1/s]; Time-dependent; Vector (nreac)
power	vecflt_type (7.9.4.1.14)	Fusion reaction power[W]; Time-dependent; Vector (nreac)

Type of: dist_glob:nucl_reac_th (2191)

7.9.4.1.155 dist_particle_src

Particle source

member	type	description
total	dist_src_snk_tot (7.9.4.1.164)	Total source of particles and power (NBI, fusion products, pellets etc.)

member	type	description
volume_intgr	dist_src_snk_vol (7.9.4.1.165)	Volume integrated source of particles and power (NBI, fusion products, pellets etc.)
flux_surf_av	dist_src_snk_surf (7.9.4.1.163)	Flux surface averaged source of particles and power (NBI, fusion products, pellets etc.)

Type of: dist_input_src:particle_src (2194)

7.9.4.1.156 dist_prof_surf_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_surf (7.9.4.1.163)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_surf (7.9.4.1.163)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:lossesd (2206)

7.9.4.1.157 dist_prof_surf_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.4.1.14)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (npsi)
power	vecflt_type (7.9.4.1.14)	Fusion reaction power [W.m^-3]; Time-dependent; Matrix (npsi)

Type of: dist_profiles:nucl_rd_sf (2206)

7.9.4.1.158 dist_prof_surf_nucl_reac_th

Nuclear reactions between the cacluated species and oher species assumed to have thermal distributions.

member	type	description
rated	matflt_type (7.9.4.1.12)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (nreac, max_npsi)
powerd	matflt_type (7.9.4.1.12)	Nuclear reaction power density [W.m^-3]; Time-dependent; Matrix (nreac, max_npsi)

Type of: dist_profiles:nucl_rd_th (2206)

7.9.4.1.159 dist_prof_vol_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_vol (7.9.4.1.165)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_vol (7.9.4.1.165)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:losses (2206)

7.9.4.1.160 dist_prof_vol_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.4.1.14)	Reaction rate [1/s]; Time-dependent; Vector (npsi)
power	vecflt_type (7.9.4.1.14)	Fusion reaction power[W]; Time-dependent; Vector (npsi)

Type of: dist_profiles:nucl_reac_sf (2206)

7.9.4.1.161 dist_prof_vol_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	matflt_type (7.9.4.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (nreac, npsi)
power	matflt_type (7.9.4.1.12)	Fusion reaction power[W]; Time-dependent; Matrix (nreac, npsi)

Type of: dist_profiles:nucl_reac_th (2206)

7.9.4.1.162 dist_profiles

Profiles (volume integrated and flux surface averaged)

member	type	description
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.4.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
dens	vecflt_type (7.9.4.1.14)	Flux surface averaged particle density of the distribution [J/m^3]; Time-dependent; Vector (npsi)
enrgd_tot	vecflt_type (7.9.4.1.14)	Flux surface averaged energy density of the distribution [J/m^3]; Time-dependent; Vector (npsi)
enrgd_para	vecflt_type (7.9.4.1.14)	Flux surface averaged parallel energy density of the distribution [J/m^3] Time-dependent; Vector (npsi).
powd_coll_i	matflt_type (7.9.4.1.12)	Flux surface averaged collisional power to ions [W.m^-3]; Time-dependent; Matrix (nion, npsi)
powd_coll_e	vecflt_type (7.9.4.1.14)	Flux surface averaged collisional power to the electrons [W.m^-3]; Time-dependent; Vector(npsi)
therm_srcd	dist_src_snk_surf (7.9.4.1.163)	Flux surface averaged source of particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
lossesd	dist_prof_surf_dist_losses (7.9.4.1.156)	Particle loss densities due to charge exchange events with neutrals or orbits intersecting material surfaces.
curd_fp	vecflt_type (7.9.4.1.14)	Flux surface averaged toroidal current density of non-thermal (fast) particles of the distribution species (excluding electron back current for fast ions) [A.m^-2]; Time-dependent; Vector (npsi).
curd_dr	vecflt_type (7.9.4.1.14)	Total toroidal driven current density (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi)
trqd_i	matflt_type (7.9.4.1.12)	Flux surface averaged collisional toroidal torque to background ions [N.m^-2]; Time-dependent; Matrix (nion, npsi)
trqd_e	vecflt_type (7.9.4.1.14)	Flux surface averaged collisional toroidal torque density to electrons [N.m^-2]; Time-dependent; Vector (npsi)
trqd_jrxb	vecflt_type (7.9.4.1.14)	Toroidal torque density due to radial currents of non-thermal particles of the distribution species [N.m^-2]; Time-dependent; Vector (npsi)
nucl_rd_th	dist_prof_surf_nucl_reac_th (7.9.4.1.158)	Nuclear reaction rate densities for reactions between the cacluated species and other species assumed to have thermal distributions.
nucl_rd_sf	dist_prof_surf_nucl_reac_sf (7.9.4.1.157)	Nuclear reaction rate densities for reactions of the calculated species with itself (thermal + non-thermal).
enrg_tot	vecflt_type (7.9.4.1.14)	Energy content of of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
enrg_para	vecflt_type (7.9.4.1.14)	Parallel energy content of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
pow_coll_i	matflt_type (7.9.4.1.12)	Collisional power to ions inside a flux surface [W]; Time-dependent; Matrix(nion, npsi)
pow_coll_e	vecflt_type (7.9.4.1.14)	Collisional power to the electrons inside a flux surface [W]; Time-dependent; Vector(npsi)
therm_src	dist_src_snk_vol (7.9.4.1.165)	Source particles and power inside a flux surface due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_prof_vol_dist_losses (7.9.4.1.159)	Particle loss inside flux surface due to charge exchange events.
cur_fp	vecflt_type (7.9.4.1.14)	Toroidal current of non-thermal (fast) particles driven inside a flux surface (does not include electron back current for fast ions) [A]; Time-dependent; Vector (npsi)
cur_dr	vecflt_type (7.9.4.1.14)	Total toroidal current driven inside a flux surface (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi).
trq_i	matflt_type (7.9.4.1.12)	Collisional toroidal torque to background ions inside a flux surface [N.m]; Time-dependent; Matrix (nion, npsi)
trq_e	vecflt_type (7.9.4.1.14)	Collisional toroidal torque to electrons inside a flux surface [N.m]; Time-dependent; Vector (npsi)
trq_j_rxb	vecflt_type (7.9.4.1.14)	Toroidal torque due to radial currents of non-thermal particles of the distribution species [N.m]; Time-dependent; Vector (npsi)
nucl_reac_th	dist_prof_vol_nucl_reac_th (7.9.4.1.161)	Nuclear reactions inside a flux surface involving the distribution species and other species assumed to be thermal.

member	type	description
nucl_reac_sf	dist_prof_vol_nucl_reac_sf (7.9.4.1.160)	Nuclear reactions inside a flux surface of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:profiles_1d (2211)

7.9.4.1.163 dist_src_snk_surf

Losses due to orbits intersecting a material surface.

member	type	description
particlesd	vecflt_type (7.9.4.1.14)	Source/sink particles [s^-1 m^-3]; Time-dependedent; Vector (npsi)
powerd	vecflt_type (7.9.4.1.14)	Power density associated with the source/sink of particles [W.m^-3]; Time-dependent; Vector (npsi)
torqued	vecflt_type (7.9.4.1.14)	Torque density due to the source/sink of particles [N.m^-2]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:flux_surf_av (2199) I dist_prof_surf_dist_losses:neutr_loss (2200) I dist_prof_surf_dist_losses:orb_loss (2200) I dist_profiles:therm_srcd (2206)

7.9.4.1.164 dist_src_snk_tot

Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).

member	type	description
particles	float (7.9.4.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.4.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.4.1.2)	Torque due to the source/sink of particles [N.m]; Time-dependent

Type of: dist_glob:therm_src (2191) I dist_glob_dist_losses:neutr_loss (2192) I dist_glob_dist_losses:orb_loss (2192) I dist_particle_src:total (2199)

7.9.4.1.165 dist_src_snk_vol

Losses due to orbits intersecting a material surface.

member	type	description
particles	vecflt_type (7.9.4.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.4.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.4.1.14)	Torque due to the source/sink of particles [N.m]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:volume_intgr (2199) I dist_prof_vol_dist_losses:neutr_loss (2203) I dist_prof_vol_dist_losses:orb_loss (2203) I dist_profiles:therm_src (2206)

7.9.4.1.166 dist_wave_src

Auxiliary wave absorbed by the distribution species

member	type	description
type	string (7.9.4.1.4)	Wave type (LH, EC, IC, ...), can be a combination of these if several wave types are absorbed by this species.
wave_power	float (7.9.4.1.2)	Auxiliary wave power absorbed by the distribution species [W]; Time-dependent.
wave_powerd	vecflt_type (7.9.4.1.14)	Auxiliary flux surface averaged wave power density absorbed by the distribution species [W/m^3]; Time-dependent; Vector (npsi)

Type of: dist_input_src:wave_src (2194)

7.9.4.1.167 distri_vec

Vector over all distribution functions; Time-dependent. Structure array(ndistri_vec)

member	type	description
wave_id(:)	enum_instance (7.9.4.1.189)	List all waves affecting the distribution, as specified in waves(*)%coherentwave(*)%wave_id. Vector(n_antennas)
source_id(:)	enum_instance (7.9.4.1.189)	List all neutral beam injectors and reactions contributing to the source, as specified in distsource(*)%source(*)%source_id. Vector(n_injectors_and_reactions)
calc_spec	integer (7.9.4.1.3)	Pointer to the species for which the distribution function(s) is/are calculated and whose characteristics are given in composition (for ions). Value 0 means electrons.
gyro_type	integer (7.9.4.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle position; 2 = given at the gyro centre of the particle position.
global_param	dist_glob (7.9.4.1.147)	Global parameters (in most cases volume integrated and surface averaged quanatities).
profiles_1d	dist_profiles (7.9.4.1.162)	Profiles (volume integrated and flux surface averaged)
dist_func	dist_func (7.9.4.1.146)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.
input_src	dist_input_src (7.9.4.1.150)	Input sources of particles and power for the distribution species (to aid diagnosing the code output).
nucl_reac	dist_nucl_reac (7.9.4.1.152)	Information on nuclear reactions involving the calculated species.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: distribution:distri_vec (2074)

7.9.4.1.168 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.4.1.196)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.4.1.196)	Particle source rate [1/s]; Time-dependent.

Type of: distsource_source:global_param (2216)

7.9.4.1.169 distsource_line_src_prof

1D profiles representation of a line source

member	type	description
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.4.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp = |grad psi| / (R 2 pi). Time-dependent; Vector (npsi)
R	vecflt_type (7.9.4.1.14)	Major radius at the line source. Time-dependent; Vector (npsi)
Z	vecflt_type (7.9.4.1.14)	Vertical position of the line source. Time-dependent; Vector (npsi)
theta	vecflt_type (7.9.4.1.14)	Polidal angle [rad]. Time-dependent; Vector (npsi)
theta_id	vecflt_type (7.9.4.1.14)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.4.1.12)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)
pitch	vecflt_type (7.9.4.1.14)	Pitch (i.e. v_parallel/v) of source particles. Time-dependent; Vector (npsi)
energy	vecflt_type (7.9.4.1.14)	Kinetic energy of source particles [eV]. Time-dependent; Vector (npsi)
ang_momentum	vecflt_type (7.9.4.1.14)	Kinetic angular momentum of a single source particles, R m v_phi [Nms]. Time-dependent; Vector (npsi)
src_rate	vecflt_type (7.9.4.1.14)	Source density of particles [1/m^3/s]. Time-dependent; Vector (npsi)

Type of: distsource_source:line_srcprof (2216)

7.9.4.1.170 distsource_profiles_1d

1D radial profiles

member	type	description

member	type	description
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.4.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.4.1.197)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.4.1.197)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (2216)

7.9.4.1.171 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.4.1.15)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.4.1.12)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.4.1.12)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.4.1.12)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.4.1.12)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.4.1.12)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g22	matflt_type (7.9.4.1.12)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.4.1.198)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.4.1.198)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (2216)

7.9.4.1.172 distsource_source

Source

member	type	description
source_id(:)	enum_instance (7.9.4.1.189)	List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for type: NBI or reaction names (see specifications on the ITM webpages); the field name should either be taken from nbi(*)%nbi_unit(*)%name, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)
src_spec	integer (7.9.4.1.3)	Pointer to the source species whose characteristics are given in composition.
gyro_type	integer (7.9.4.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle birth point; 2 =given at the gyro centre of the birth point.
global_param	distsource_global_param (7.9.4.1.168)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.4.1.170)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.4.1.171)	2D source profiles in terms of two phase space coordinates
line_srcprof(:)	distsource_line_src_prof (7.9.4.1.169)	1D profiles representation of a line source
source_rate	source_rate (7.9.4.1.381)	Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
source_grid	source_on_grid (7.9.4.1.380)	TO BE REMOVED, being replaced by source_rate. Kept only to make smooth transition between data-type versions. [Source density of particles in phase space (real space, velocity space, spin state); simplified formulation, without the grid-cpo.]
markers	weighted_markers (7.9.4.1.442)	Source given as a set of markers (test particles) born per second.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: distsource:source (2075)

7.9.4.1.173 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.4.1.14)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.4.1.14)	Beam divergence for a unit in the vertical direction[rad]. Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.4.1.14)	Beam divergence for a unit in the horizontal direction[rad]. Vector(ndiv_comp)

Type of: setup_inject:divergence (2416)

7.9.4.1.174 e_components

E-field representation in terms of the parallel and circularly polarised components

member	type	description
e_plus	complexgrid_scalar_cplx (7.9.4.1.93)	Left hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_minus	complexgrid_scalar_cplx (7.9.4.1.93)	Right hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_para	complexgrid_scalar_cplx (7.9.4.1.93)	Parallel (to the static magnetic field) component of electric field [V/m]. Time-dependent; Complexgrid_scalar
e_norm	complexgrid_scalar_cplx (7.9.4.1.93)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
e_binorm	complexgrid_scalar_cplx (7.9.4.1.93)	Magnitude of perpendicular (to the static magnetic field) wave electric field tangent to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
b_norm	complexgrid_scalar_cplx (7.9.4.1.93)	Magnitude of perpendicular (to the static magnetic field) wave magnetic field normal to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_binorm	complexgrid_scalar_cplx (7.9.4.1.93)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_para	complexgrid_scalar_cplx (7.9.4.1.93)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Complexgrid_scalar

Type of: fullwave:e_components (2250)

7.9.4.1.175 ecemeasure

Measured values

member	type	description
te	exp1D (7.9.4.1.197)	Electron temperature [eV]. Vector (nchannels)

Type of: ecediag:measure (2076)

7.9.4.1.176 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.4.1.14)	Frequency of the ECE channels. Vector (nchannels)
harmonic	vecstring_type (7.9.4.1.16)	Harmonic detected by the ECE channels. Vector of strings (nchannels)
position	rzphi1Dexp (7.9.4.1.343)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: ecediag:setup (2076)

7.9.4.1.177 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.4.1.179)	Electron density [1/m^3]; Time-dependent;
ni(:)	edge_fluid_scalar (7.9.4.1.178)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.4.1.182)	Electron velocity [m/s]; Time-dependent;
vi(:)	edge_fluid_vector (7.9.4.1.181)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.4.1.179)	Electron temperature [eV]; Time-dependent;
ti(:)	edge_fluid_scalar (7.9.4.1.178)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.4.1.182)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso(:)	edge_fluid_vector (7.9.4.1.181)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.4.1.179)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.4.1.182)	Electric current [A]; Time-dependent;
b(:)	complexgrid_vector (7.9.4.1.98)	Magnetic field vector [T]; Time-dependent;

Type of: edge:fluid (2077)

7.9.4.1.178 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value(:)	complexgrid_scalar (7.9.4.1.92)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.4.1.92)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.4.1.98)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.4.1.98)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.4.1.180)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.4.1.92)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (2221) I edge_fluid:ti (2221) I edge_fluid_vector:comps (2225) I edge_fluid_vector_simplestruct:comps (2226)

7.9.4.1.179 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value(:)	complexgrid_scalar (7.9.4.1.92)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.4.1.92)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.4.1.98)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.4.1.98)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.4.1.180)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
source(:)	complexgrid_scalar (7.9.4.1.92)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (2221) I edge_fluid:po (2221) I edge_fluid:te (2221)

7.9.4.1.180 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.4.1.99)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.4.1.99)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (2222) I edge_fluid_scalar_simplestruct:transpcoeff (2223)

7.9.4.1.181 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.4.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
align	vecint_type (7.9.4.1.15)	Alignment of vector components, numerical flag. Int vector (number of vector components);
alignid	vecstring_type (7.9.4.1.16)	Alignment of vector components, string description. String vector (number of vector components);
comps(:)	edge_fluid_scalar (7.9.4.1.178)	Components of the vector. Array of structures (number of vector components); Time-dependent;

Type of: edge_fluid:ti_aniso (2221) I edge_fluid:vi (2221)

7.9.4.1.182 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
griduid	integer (7.9.4.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.4.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
comps(:)	edge_fluid_scalar (7.9.4.1.178)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.4.1.15)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.4.1.16)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (2221) I edge_fluid:te_aniso (2221) I edge_fluid:ve (2221)

7.9.4.1.183 edge_kinetic

Kinetic quantities

member	type	description
f(:)	edge_kinetic_distribution (7.9.4.1.184)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (2077)

7.9.4.1.184 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value(:)	complexgrid_scalar (7.9.4.1.92)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue(:)	complexgrid_scalar (7.9.4.1.92)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes(:)	complexgrid_vector (7.9.4.1.98)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source(:)	complexgrid_scalar (7.9.4.1.92)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (2227)

7.9.4.1.185 edges

Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

member	type	description
edge_rzphi	rzphi1D (7.9.4.1.342)	Sequence of points describing a coil edge. Vector (npoints)

Type of: desc_coils:edges (2183)

7.9.4.1.186 edgespecies

Array of edge species.

member	type	description
nucindex	integer (7.9.4.1.3)	Index into list of nuclei; int
zmin	float (7.9.4.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.4.1.2)	Maximum Z of species charge state bundle
label	string (7.9.4.1.4)	String identifying the species (e.g. D0, D+, C0, C+, C+2, ...)

Type of: compositions_type:edgespecies (2148)

7.9.4.1.187 element_desc

Description of atomic elements used in wall element layer compositions

member	type	description
label	string (7.9.4.1.4)	Element name/label
zn	integer (7.9.4.1.3)	Nuclear charge
amn	float (7.9.4.1.2)	Nuclear mass
density	float (7.9.4.1.2)	Material density (atoms/m^3)

Type of: surface:elements (2440)

7.9.4.1.188 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.4.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.4.1.4)	Name of the device
shot	integer (7.9.4.1.3)	Shot number
run	integer (7.9.4.1.3)	Run number

Type of: mdinfo:md_entry (2300)

7.9.4.1.189 enum_instance

Specifies a specific enumerated instance of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

member	type	description
type	identifier (7.9.4.1.230)	Identify the type of the object or process.
name	string (7.9.4.1.4)	The name of the object or process. Here the object should be an instans of the type specified in the field type.
index	integer (7.9.4.1.3)	Index the separating objects or processes with the same name.

Type of: coherentwave:wave_id (2128) I distri_vec:source_id (2211) I distri_vec:wave_id (2211) I distsource_source:source_id (2216)

7.9.4.1.190 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.4.1.193)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.4.1.192)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.4.1.192)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.4.1.193)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.4.1.193)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.4.1.192)	Plasma current [A];
isoflux	isoflux (7.9.4.1.236)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.4.1.193)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.4.1.253)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.4.1.193)	MSE angles [rad]
ne	eqmes1D (7.9.4.1.193)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.4.1.193)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.4.1.193)	Total pressure [Pa]
q	q (7.9.4.1.307)	Safety factor
xpts	xpts (7.9.4.1.445)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (2079)

7.9.4.1.191 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.4.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.4.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary(:)	rz1Dexp (7.9.4.1.338)	RZ description of the plasma boundary; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, boundary must be allocated to size 1. Time-dependent;
geom_axis	rz0D (7.9.4.1.335)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.4.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.4.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
elong_upper	float (7.9.4.1.2)	Elongation upper of the plasma boundary; Time-dependent; Scalar
elong_lower	float (7.9.4.1.2)	Elongation lower of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.4.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.4.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts(:)	rz1Dexp (7.9.4.1.338)	Position of the Xpoints, first is the active xpoint if diverted [m]; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, xpts must be allocated to size 1. Time-dependent;
left_low_st	rz0D (7.9.4.1.335)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.4.1.335)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.4.1.335)	Position of the upper left strike point [m]; Time-dependent; Scalar

member	type	description
right_up_st	rz0D (7.9.4.1.335)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.4.1.335)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar
ang_lcms_upo	float (7.9.4.1.2)	Angle at the LMCS X point upper outer; Time-dependent; Scalar
ang_lcms_upi	float (7.9.4.1.2)	Angle at the LMCS X point upper inner; Time-dependent; Scalar
ang_lcms_lwo	float (7.9.4.1.2)	Angle at the LMCS X point lower outer; Time-dependent; Scalar
ang_lcms_lwi	float (7.9.4.1.2)	Angle at the LMCS X point lower inner; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (2079) I scenario:eqgeometry (2100)

7.9.4.1.192 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.4.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.4.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.4.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.4.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.4.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.4.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.4.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.4.1.2)	chi^2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (2234) I eqconstraint:diamagflux (2234) I eqconstraint:i_plasma (2234)

7.9.4.1.193 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.4.1.14)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.4.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.4.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.4.1.15)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.4.1.14)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.4.1.14)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.4.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.4.1.14)	chi^2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (2234) I eqconstraint:faraday (2234) I eqconstraint:flux (2234) I eqconstraint:jsurf (2234) I eqconstraint:mse (2234) I eqconstraint:ne (2234) I eqconstraint:pfcurrent (2234) I eqconstraint:pressure (2234) I magnet_iron:mr (2297) I magnet_iron:mz (2297)

7.9.4.1.194 equilibrium_profiles2d_grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.4.1.14)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.4.1.14)	Second dimension values; Time-dependent; Vector (ndim2)

member	type	description
connect	matint_type (7.9.4.1.13)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: equilibrium_profiles_2d:grid (2239)

7.9.4.1.195 equilibrium_profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	vecstring_type (7.9.4.1.16)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	equilibrium_profiles2d_grid (7.9.4.1.194)	definition of the 2D grid
r	matflt_type (7.9.4.1.12)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.4.1.12)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.4.1.12)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.4.1.12)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
phi	matflt_type (7.9.4.1.12)	Toroidal flux [Wb]. Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.4.1.12)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.4.1.12)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.4.1.12)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.4.1.12)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.4.1.12)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.4.1.12)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.4.1.12)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.4.1.12)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.4.1.12)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.4.1.12)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (2079)

7.9.4.1.196 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.4.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.4.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.4.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (2110) I antenna_ic:frequency (2111) I antenna_ic:power (2111) I antenna_lh:power (2112) I distsource_global_param:src_pow (2212) I distsource_global_param:src_rate (2212) I fusiondiag_ct_chords:energy (2258) I fusiondiag_spec1d:energy (2264) I fusiondiag_spec2d:energy (2265) I magdiag:diamagflux (2088) I magdiag:ip (2088) I nbi_unit:inj_eng_unit (2315) I nbi_unit:pow_unit (2315) I straps:phase (2439) I toroidfield:bvac_r (2103) I toroidfield:current (2103)

7.9.4.1.197 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.4.1.14)	Absolute error on signal; Time-dependent; Vector

member	type	description
relerror	vecflt_type (7.9.4.1.14)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bpol_probes:measure (2124) I coil:coilcurrent (2129) I coil:coilvoltage (2129) I cxmeasure:ti (2178) I cxmeasure:vpol (2178) I cxmeasure:vtor (2178) I distsource_profiles_1d:pow_den (2214) I distsource_profiles_1d:src_rate (2214) I ecemeasure:te (2219) I flux_loops:measure (2246) I fusiondiag_ct_chords:measure (2258) I fusiondiag_ct_energy:energ (2259) I fusiondiag_ct_energy:measure (2259) I fusiondiag_detect_ct_energy:energy (2260) I fusiondiag_detect_ct_energy:meas (2260) I fusiondiag_emissivity1d:r (2261) I fusiondiag_emissivity1d:z (2261) I fusiondiag_spec1d:measure (2264) I halpha_setup:solidangle (2272) I halphadiag:intensity (2081) I lang_derived:measure (2282) I lang_measure:area (2283) I lang_measure:measure (2283) I lineintegraldiag:measure (2292) I lithmeasure:ne (2293) I magnetise:mr (2298) I magnetise:mz (2298) I modules:amplitude (2306) I modules:phase (2306) I msediag_radia_chord:totradiance (2310) I msediag_radiance:wavelength (2311) I nbi_unit:beamcurrfrac (2315) I nbi_unit:beampowrfrac (2315) I pfcoils:coilcurrent (2333) I pfcoils:coilvoltage (2333) I pfsupplies:current (2338) I pfsupplies:voltage (2338) I polarimetry:measure (2344) I rfameasure:ti (2376) I rzphi1Dexp:phi (2387) I rzphi1Dexp:r (2387) I rzphi1Dexp:z (2387) I tsmeasure:ne (2454) I tsmeasure:te (2454)

7.9.4.1.198 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.4.1.12)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.4.1.12)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.4.1.12)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (2215) I distsource_profiles_2d:src_rate (2215) I fusiondiag_emissivity2d:r (2262) I fusiondiag_emissivity2d:z (2262) I fusiondiag_spec2d:measure (2265)

7.9.4.1.199 f_expansion

Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

member	type	description
grid	complexgrid (7.9.4.1.87)	Grid for storing the distribution function. Time-dependent; Complexgrid
values	complexgrid_scalar (7.9.4.1.92)	Values of the distribution function [m^-3 (m/s)^-3]. Time-dependent; Complexgrid_scalar.

Type of: dist_func:f_expansion (2190)

7.9.4.1.200 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.4.1.12)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.4.1.12)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (2187)

7.9.4.1.201 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
position	rz1D (7.9.4.1.336)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)

member	type	description
coef	matflt_type (7.9.4.1.12)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: equilibrium:flush (2079)

7.9.4.1.202 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.4.1.371)	diagnostic setup information
measure	exp1D (7.9.4.1.197)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (2088)

7.9.4.1.203 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.4.1.14)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.4.1.14)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (2154)

7.9.4.1.204 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.4.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Array2D (nrho,nzimp)
flux_interp	matflt_type (7.9.4.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array2D (nrho,nzimp)

Type of: impurity_type:flux (2277)

7.9.4.1.205 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.4.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.4.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (2155)

7.9.4.1.206 fullwave

Solution by full wave code

member	type	description
grid	complexgrid (7.9.4.1.87)	Grid for storing the components of the wave field; Time-dependent
e_components	e_components (7.9.4.1.174)	E-field representation in terms of the parallel and circularly polarised components
pol_decomp	pol_decomp (7.9.4.1.299)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
local	local (7.9.4.1.251)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

Type of: coherentwave:fullwave (2128)

7.9.4.1.207 fusiondiag_colli_3d

Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.4.1.4)	Name tag for the chord. String.
voxels(:)	fusiondiag_voxels (7.9.4.1.222)	Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

Type of: fusiondiag_collimator:colli_3d (2254)

7.9.4.1.208 fusiondiag_colli_circ

Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.4.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.4.1.373)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_circ (7.9.4.1.211)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_circ (2254)

7.9.4.1.209 fusiondiag_colli_poly

Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.4.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.4.1.373)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_poly (7.9.4.1.212)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_poly (2254)

7.9.4.1.210 fusiondiag_collimator

Collimator array.

member	type	description
colli_circ(:)	fusiondiag_colli_circ (7.9.4.1.208)	Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.
colli_poly(:)	fusiondiag_colli_poly (7.9.4.1.209)	Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.
colli_3d(:)	fusiondiag_colli_3d (7.9.4.1.207)	Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

Type of: fusiondiag_fus_product:collimator (2263)

7.9.4.1.211 fusiondiag_colliunit_circ

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
radius	vecflt_type (7.9.4.1.14)	Radius of cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim)
centre	rzphi1D (7.9.4.1.342)	Position of cross section centre; Typically dim=2 for just entry and exit of collimator; Vector (dim)

Type of: fusiondiag_colli_circ:colliunit (2252)

7.9.4.1.212 fusiondiag_colliunit_poly

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
dimension	float (7.9.4.1.2)	Number of edges of cross section.
nodes	rzphi2D (7.9.4.1.344)	Coordinates of nodes defining each cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim,nnodes)

Type of: fusiondiag_colli_poly:colliunit (2253)

7.9.4.1.213 fusiondiag_counts

Integrated emissivity [s^-1].

member	type	description
units	string (7.9.4.1.4)	Energy units (ev, tof - time of flight)
ct_chords(:)	fusiondiag_ct_chords (7.9.4.1.214)	Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].
ct_energy(:)	fusiondiag_ct_energy (7.9.4.1.215)	Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].
detect_ct(:)	fusiondiag_detect_ct_energy (7.9.4.1.216)	Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

Type of: fusiondiag_fus_product:counts (2263)

7.9.4.1.214 fusiondiag_ct_chords

Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].

member	type	description
name	vecstring_type (7.9.4.1.16)	Name tag for each chord. Vector (nchords)
energy	exp0D (7.9.4.1.196)	Energy like variable span. Use mininum energy when no energy spectra is resolved.
measure	exp1D (7.9.4.1.197)	Measured counts. Vector (nchords)

Type of: fusiondiag_counts:ct_chords (2257)

7.9.4.1.215 fusiondiag_ct_energy

Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].

member	type	description
energy	exp1D (7.9.4.1.197)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.4.1.197)	Measured counts spectra. Vector (nenergy)

Type of: fusiondiag_counts:ct_energy (2257)

7.9.4.1.216 fusiondiag_detect_ct_energy

Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

member	type	description
energy	exp1D (7.9.4.1.197)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.4.1.197)	Measured counts spectra. Vector (nenergy)
diag_func	diag_func (7.9.4.1.144)	Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

Type of: fusiondiag_counts:detect_ct (2257)

7.9.4.1.217 fusiondiag_emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.4.1.4)	Energy units (ev, tof - time of flight)
r	exp1D (7.9.4.1.197)	horizontal grid. Vector (dim)
z	exp1D (7.9.4.1.197)	vertical grid. Vector (dim)
spec1d(:)	fusiondiag_spec1d (7.9.4.1.220)	Emissivity in given energy like variable range [counts.m^-3.s-1].

Type of: fusiondiag_fus_product:emissivity1d (2263)

7.9.4.1.218 fusiondiag_emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.4.1.4)	Energy units (ev, tof - time of flight)
r	exp2D (7.9.4.1.198)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.4.1.198)	vertical grid. Vector (dim1,dim2)
spec2d(:)	fusiondiag_spec2d (7.9.4.1.221)	Emissivity in given energy like variable range [counts.m^-3.s-1].

Type of: fusiondiag_fus_product:emissivity2d (2263)

7.9.4.1.219 fusiondiag_fus_product

Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.

member	type	description
product	string (7.9.4.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.4.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
collimator	fusiondiag_collimator (7.9.4.1.210)	Collimator array.
counts	fusiondiag_counts (7.9.4.1.213)	Integrated emissivity [s^-1].
emissivity1d	fusiondiag_emissivity1d (7.9.4.1.217)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	fusiondiag_emissivity2d (7.9.4.1.218)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: fusiondiag:fus_product (2080)

7.9.4.1.220 fusiondiag_spec1d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.4.1.196)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp1D (7.9.4.1.197)	reconstruction. Vector (dim)

Type of: fusiondiag_emissivity1d:spec1d (2261)

7.9.4.1.221 fusiondiag_spec2d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.4.1.196)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp2D (7.9.4.1.198)	reconstruction. Vector (dim1,dim2)

Type of: fusiondiag_emissivity2d:spec2d (2262)

7.9.4.1.222 fusiondiag_voxels

Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

member	type	description
centre	rzphi0D (7.9.4.1.341)	Centre of voxel; used also as origin of direction to detector
direction	rzphi0D (7.9.4.1.341)	Second point defining the direction to detector.
volume	float (7.9.4.1.2)	Voxel Volume
solid_angle	float (7.9.4.1.2)	effective solid angle (divided by 4pi) of the voxel towards detector.

Type of: fusiondiag_colli_3d:voxels (2251)

7.9.4.1.223 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.4.1.15)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.4.1.339)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (2185)

7.9.4.1.224 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.4.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.4.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.4.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.4.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.4.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.4.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.4.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.4.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.4.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.4.1.252)	Magnetic axis values
q_95	float (7.9.4.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar

member	type	description
q_min	float (7.9.4.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.4.1.72)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.4.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.4.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (2079)

7.9.4.1.225 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.4.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.4.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.4.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.4.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.4.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.4.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.4.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.4.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.4.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (2070)

7.9.4.1.226 grid_info

Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.

member	type	description
grid_type	integer (7.9.4.1.3)	Type of grid in continuous dimensions: 1=unstructured grid, 2=structured non-rectangular grid, 3=rectangular. For rectangular grids, and/or dimensions with discrete source, the grid coordinates dim1,dim2,... is stored in vectors dim1(1:ndim1,1,1,1), dim1(1,1:ndim2,1,1),...
ngriddim	integer (7.9.4.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, and dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(3)=6.
grid_coord	vecint_type (7.9.4.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describe the coordinate represented in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
discrete_dims	vecint_type (7.9.4.1.15)	Specifies discrete or continuous grid in each dimension separately. For discrete_dims(K)=1, K=1,2...6: the source is discretely distributed at the grid points of the dimK-grid (e.g. to treat the discrete energies injected with NBI); for discrete_dims(K)=0: continuous source, i.e. the source is distributed over the continuous variable dimK (e.g. the source density is a continuous function of the major radius). Vector (6)

Type of: source_on_grid:grid_info (2424)

7.9.4.1.227 h_inventory

Data on wall element hydrogen inventories

member	type	description
surf_trap_de	array5dflt_type (7.9.4.1.9)	Density of hydrogen traps on internal surfaces [1/m^2]; Time-dependent; 5d float array; Dimensions: 1. compound type (indexing as in chemical_comp), 2. trap type, 3. cell index of 1d layer height discretization; 4. layer index; 5. wall element index
bulk_trap_de	array5dflt_type (7.9.4.1.9)	Density of hydrogen traps in bulk material [1/m^3]; Time-dependent; 5d float array; Dimensions: see surface_trap_density
bulk_D	array5dflt_type (7.9.4.1.9)	Diffusivity of hydrogen species in bulks of different compounds; Time-dependent; 5d float array. Dimensions: 1. index of compound (indexing as in chemical_comp), 2. index of hydrogen isotope, 3. cell index of 1d layer height discretization, 4. layer index, 5. wall element index
surface_D	array5dflt_type (7.9.4.1.9)	Diffusivity of hydrogen species of surface of different compounds; Time-dependent; Dimensions: see bulk_D
bulk_C_s	array5dflt_type (7.9.4.1.9)	Bulk mobile (solute) concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surface_C_s	array5dflt_type (7.9.4.1.9)	Surface mobile (solute) concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
bulk_C_t	array5dflt_type (7.9.4.1.9)	Bulk trapped concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surface_C_t	array5dflt_type (7.9.4.1.9)	Surface trapped concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
surf_recrate	array5dflt_type (7.9.4.1.9)	Recombination rate on surface (only for pure elements, not compounds) [molecules*m^2/s]; Time-dependent; Dimensions: see bulk_D

Type of: surface:h_inventory (2440)

7.9.4.1.228 halpha_setup

setup for the lines of sight of the line integrated measurement

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of the channel. Array of strings (nlos).
pivot_point	rzphi1D (7.9.4.1.342)	Pivot point of l.o.s. it can be either the collimator position or entry point on the vessel. Vector (nlos)
horchordang	vecflt_type (7.9.4.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Vector (nlos)
verchordang	vecflt_type (7.9.4.1.14)	Angle of l.o.s. with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Vector (npos)
second_point	rzphi1D (7.9.4.1.342)	Second point defining the l.o.s. together with the pivot_point. Vector (nlos)
solidangle	exp1D (7.9.4.1.197)	Solid angle of the detector; [sr] Vector (nlos)

Type of: halphadiag:setup (2081)

7.9.4.1.229 holes

Structure to describe the placing and properties of the holes

member	type	description
n_holes	integer (7.9.4.1.3)	Number of holes on each wall;
coordinates	coordinates (7.9.4.1.107)	Poloidal and Toroidal coordinates of the center of each hole;
width	width (7.9.4.1.444)	Angular width of each in the poloidal and toroidal direction;
eta	vecflt_type (7.9.4.1.14)	Resistivity of each hole [ohm.m]; Vector (n_holes)

Type of: mhd_res_wall2d:holes (2303)

7.9.4.1.230 identifier

Standard type for identifiers. The three fields: id, flag and description are all representations of the same information. Associated with each application of this identifier-type, there should be a translation table defining the three fields for all objects to be identified.

member	type	description
id	string (7.9.4.1.4)	Short string identifier
flag	integer (7.9.4.1.3)	Integer identifier
description	string (7.9.4.1.4)	Verbose description of identifier

Type of: composition_neutralscomp:type (2147) I compositions_type:signature (2148) I coredelta_values:deltaid (2153) I coreneutrals_atomlist:ionimptype (2168) I coresource_values:sourceid (2172) I coretransp_values:transportid (2176) I enum_instance:type (2233) I mhd_ideal_wall2d:walltype (2301) I mhd_res_wall2d:walltype (2303) I msediag_polarization:type (2309) I msediag_stokes:type (2314) I wall2d:wall_id (2469) I wall2d_mhd:wall_id (2470)

I wall3d:wall_id (2471) I weighted_markers:variable_ids (2486)

7.9.4.1.231 impcoeff

Array over charge states for this particular impurity.

member	type	description
chargestate(:)	coefficients_neutrals (7.9.4.1.83)	NO DOCS

Type of: coreneutrals:impcoeff (2069)

7.9.4.1.232 impurities

Array of impurities.

member	type	description
nucindex	integer (7.9.4.1.3)	Index into list of nuclei; int
i_ion	integer (7.9.4.1.3)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	integer (7.9.4.1.3)	Number of charge states (or bundles) considered for this impurity species.
zmin	vecflt_type (7.9.4.1.14)	Minimum Z of impurity ionisation state bundle. Vector (nzimp)
zmax	vecflt_type (7.9.4.1.14)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Vector (nzimp)
label	vecstring_type (7.9.4.1.16)	String array (nzimp) identifying impurities (e.g. C+, C+2 , C+3, C+4, C+5, C+6, ...)

Type of: compositions_type:impurities (2148)

7.9.4.1.233 impurity_type

Array(nimp). Time-dependent

member	type	description
z	matflt_type (7.9.4.1.12)	Impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
zsq	matflt_type (7.9.4.1.12)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
nz	matflt_type (7.9.4.1.12)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
source_term	sourceimp (7.9.4.1.384)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.4.1.78)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.4.1.130)	Transport coefficients for each charge state
flux	fluximp (7.9.4.1.204)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	matflt_type (7.9.4.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Array2D (nrho,nzimp)
diagnostic	coreimpurediag_type (7.9.4.1.121)	NO DOCS

Type of: coreimpur:impurity (2068)

7.9.4.1.234 inj_spec

Injected species

member	type	description
amn	float (7.9.4.1.2)	Atomic mass number
zn	float (7.9.4.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (2315)

7.9.4.1.235 ions

Array of main plasma ions.

member	type	description
nucindex	integer (7.9.4.1.3)	Index into list of nuclei; int

member	type	description
zion	float (7.9.4.1.2)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	integer (7.9.4.1.3)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	string (7.9.4.1.4)	String identifying ion (e.g. H+, D+, T+, He+2, C+, ...)

Type of: compositions_type:ions (2148)

7.9.4.1.236 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.4.1.336)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.4.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.4.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.4.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.4.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.4.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (2234)

7.9.4.1.237 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.4.1.14)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (2349)

7.9.4.1.238 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.4.1.16)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.4.1.343)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.4.1.197)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (2084) I langmuirdiag:ne (2084) I langmuirdiag:te (2084)

7.9.4.1.239 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.4.1.16)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.4.1.197)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.4.1.343)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.4.1.197)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (2084) I langmuirdiag:jsat (2084) I langmuirdiag:potential (2084)

7.9.4.1.240 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.4.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline [rad], Tan(alpha)=-k_z/k_R; Time-dependent
beta	float (7.9.4.1.2)	Toroidal launching angle between the poloidal plane and the nominal beam centerline [rad], Sin(beta)=k_phi; Time-dependent

Type of: antenna_ec:launchangles (2110)

7.9.4.1.241 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.4.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.4.1.12)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.4.1.14)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (2433)

7.9.4.1.242 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.4.1.15)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.4.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.4.1.12)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.4.1.12)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.4.1.6)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (2433)

7.9.4.1.243 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.4.1.245)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.4.1.244)	Phase ellipse characteristics of the spot

Type of: launchs:beam (2085)

7.9.4.1.244 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.4.1.12)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.4.1.14)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (2287)

7.9.4.1.245 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.4.1.12)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.4.1.14)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (2287)

7.9.4.1.246 layers

Data on wall element layers

member	type	description
density	matflt_type (7.9.4.1.12)	Density of the surface layers [kg/m^3]; Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
thickness	matflt_type (7.9.4.1.12)	Thickness of surface layer [m]; Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
roughness	matflt_type (7.9.4.1.12)	Surface roughness [m] (surface between this layer and the one above it towards the plasma); Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
t	array3dflt_type (7.9.4.1.6)	Temperature in layer [K]; Time-dependent; 3d float array, dimensions: 1. cell index of 1d layer height discretization, 2. layer index, 3. wall element index
element_frac	array3dflt_type (7.9.4.1.6)	Elemental composition; Time-dependent; Float 3d array (max. number of tracked elements, max. number of layers, number of wall elements); Dimensions: 1. index of tracked element (c.f. surface.elements list), 2. layer index, 3. wall element index
chem_comp	array3dflt_type (7.9.4.1.6)	Chemical composition, referring to the list surface.compounds; Time-dependent; 3d float array, dimensions: 1. index of tracked compound, 2. index of layer, 3. index of wall element

Type of: surface:layers (2440)

7.9.4.1.247 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.4.1.4)	Name or description of the limiter_unit
closed	string (7.9.4.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.4.1.336)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.4.1.2)	Wall resistivity [ohm.m]; Scalar
delta	float (7.9.4.1.2)	Wall thickness [m] (Optional if a closed facing component is given but useful for simpler closed contour limiter); Time-dependent; Scalar
permeability	float (7.9.4.1.2)	Vessel relative permeability; Scalar

Type of: limiter:limiter_unit (2086) I wall_limiter:limiter_unit (2474)

7.9.4.1.248 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.4.1.137)	Generic information on a data item
expression	string (7.9.4.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.4.1.373)	Geometric description of the lines of sight
measure	exp1D (7.9.4.1.197)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.4.1.2)	Time [s]; Time-dependent; Scalar

7.9.4.1.249 lithmeasure

Measured values

member	type	description
ne	exp1D (7.9.4.1.197)	Electron density [m^-3]. Vector (nchannels)

Type of: lithiumdiag:measure (2087)

7.9.4.1.250 lithsetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.4.1.342)	Position of the measurement. Vector (nchannels)

Type of: lithiumdiag:setup (2087)

7.9.4.1.251 local

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

member	type	description
e_plus	array3dflt_type (7.9.4.1.6)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.4.1.6)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.4.1.6)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.4.1.6)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.4.1.7)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.4.1.6)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.4.1.6)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.4.1.6)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.4.1.6)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.4.1.6)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.4.1.6)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.4.1.6)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.4.1.6)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.4.1.6)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.4.1.6)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.4.1.6)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (2250)

7.9.4.1.252 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.4.1.335)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.4.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.4.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (2268)

7.9.4.1.253 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.4.1.193)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.4.1.193)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (2234)

7.9.4.1.254 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.4.1.197)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.4.1.197)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (2083)

7.9.4.1.255 matcplx_type

Temporary structure for real and imaginary part of complex numbers (matrix)

member	type	description
re	matflt_type (7.9.4.1.12)	Real part
im	matflt_type (7.9.4.1.12)	Imaginary part

Type of: complexgrid_scalar_cplx:vector (2137)

7.9.4.1.256 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.4.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.4.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.4.1.188)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.4.1.257 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	identifier (7.9.4.1.230)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
position	rz1D (7.9.4.1.336)	RZ description of the wall;

Type of: wall2d_mhd:ideal_wall (2470)

7.9.4.1.258 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.4.1.14)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
m	array3dflt_type (7.9.4.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)

member	type	description
disp_perp	array3dcplx_type (7.9.4.1.71)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
disp_par	array3dcplx_type (7.9.4.1.71)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
tau_alfven	vecflt_type (7.9.4.1.14)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_resistive	vecflt_type (7.9.4.1.14)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.4.1.106)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.4.1.261)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.4.1.261)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.4.1.261)	Perturbed velocity (in Fourier space) [m/s]
p_pert	array3dcplx_type (7.9.4.1.71)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 3D (npsi,nn,nm)
rho_mass_pert	array3dcplx_type (7.9.4.1.71)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 3D (npsi,nn,nm)
temp_pert	array3dcplx_type (7.9.4.1.71)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd:plasma (2089)

7.9.4.1.259 mhd_res_wall2d

Resistive wall

member	type	description
walltype	identifier (7.9.4.1.230)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
delta	float (7.9.4.1.2)	Wall thickness [m]; Scalar
eta	float (7.9.4.1.2)	Wall resistivity [ohm.m]; Scalar
npoloidal	integer (7.9.4.1.3)	Number of poloidal coordinates for each wall (dimension of R and Z);
position	rz1D (7.9.4.1.336)	RZ description of the wall; wall coordinates are defined at a middle line (line passing through the middle of the real wall as defined by thickness parameter delta)
holes	holes (7.9.4.1.229)	Structure to describe the placing and properties of the holes

Type of: wall2d_mhd:res_wall (2470)

7.9.4.1.260 mhd_vacuum

External modes

member	type	description
m	array3dflt_type (7.9.4.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
coord_sys	coord_sys (7.9.4.1.106)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.4.1.261)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.4.1.261)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd:vacuum (2089)

7.9.4.1.261 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	array3dcplx_type (7.9.4.1.71)	Fourier components of first coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord2	array3dcplx_type (7.9.4.1.71)	Fourier components of second coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord3	array3dcplx_type (7.9.4.1.71)	Fourier components of third coordinate; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd_plasma:a_pert (2302) I mhd_plasma:b_pert (2302) I mhd_plasma:v_pert (2302) I mhd_vacuum:a_pert (2304) I mhd_vacuum:b_pert (2304)

7.9.4.1.262 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.4.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.4.1.3)	Number of modules per antenna in the toroidal direction.
ima_theta	vecint_type (7.9.4.1.15)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.4.1.15)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.4.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.4.1.197)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.4.1.197)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.4.1.434)	Waveguides description

Type of: antennalh_setup:modules (2114)

7.9.4.1.263 msediag_emiss_chord

MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

member	type	description
volume	float (7.9.4.1.2)	Emitting volume (m^-3). Scalar
setup	rzphi1D (7.9.4.1.342)	Description of the line of sight (for the moment a line - not a cone of sight). Vector (npos).
polarization(:)	msediag_polarization (7.9.4.1.265)	Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.
quantiaxis	vecflt_type (7.9.4.1.14)	Quantization axis for the line of sight (eR,ePhi,eZ). It is a unitary vector associated to the line of sight and to the emissivity, e.g. the Lorentzian electric field direction); Vector (3). Time-dependent

Type of: msediag_emissivity:emiss_chord (2308)

7.9.4.1.264 msediag_emissivity

Emissivity characteristics.

member	type	description
wavelength	vecflt_type (7.9.4.1.14)	Wavelength [m]. Vector (nwavelength)
emiss_chord(:)	msediag_emiss_chord (7.9.4.1.263)	MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

Type of: spectral:emissivity (2432)

7.9.4.1.265 msediag_polarization

Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.4.1.230)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
spec_emiss	matflt_type (7.9.4.1.12)	Spectral emissivity of a particular polarization (Wm^-3sr-^1). Matrix (npos,nwavelength). Time-dependent

Type of: msediag_emiss_chord:polarization (2307)

7.9.4.1.266 msediag_radia_chord

MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

member	type	description
setup	msediag_setup (7.9.4.1.268)	Geometry for the observation line of sight
stokes(:)	msediag_stokes (7.9.4.1.270)	Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.
totradiance	exp1D (7.9.4.1.197)	Total Radiance integrated along the lines of sight (Wm^-2sr-^1). Vector (nwavelength)

Type of: msediag_radiance:radia_chord (2311)

7.9.4.1.267 msediag_radiance

Emissivity characteristics.

member	type	description
wavelength	exp1D (7.9.4.1.197)	Wavelength [m]. Vector (nwavelength)
radia_chord(:)	msediag_radia_chord (7.9.4.1.266)	MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

Type of: spectral:radiance (2432)

7.9.4.1.268 msediag_setup

Geometry for the observation line of sight

member	type	description
pivot_point	rzphi0D (7.9.4.1.341)	Pivot point of mse line of sight. Scalar
horchordang	float (7.9.4.1.2)	Angle [rad] of horizontal projection of mse line of sight with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.4.1.2)	Angle of mse line of sight with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.4.1.341)	Second point defining the mse line of sight together with the pivot_point. Scalar

Type of: msediag_radia_chord:setup (2310)

7.9.4.1.269 msediag_setup_polarimetry

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.4.1.346)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.4.1.12)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: polarimetry:setup (2344)

7.9.4.1.270 msediag_stokes

Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.4.1.230)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
vector	matflt_type (7.9.4.1.12)	Stokes vector (I,U,S,V) as a function of the wavelength. Vector (4,nwavelength).

Type of: msediag_radia_chord:stokes (2310)

7.9.4.1.271 nbi_unit

Vector of Neutral Beam Injector units. Structure array(nunits). Time-dependent

member	type	description
name	string (7.9.4.1.4)	Name of the neutral beam injector
inj_spec	inj_spec (7.9.4.1.234)	Injected species
pow_unit	exp0D (7.9.4.1.196)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.4.1.196)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.4.1.197)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.4.1.197)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
setup_inject	setup_inject (7.9.4.1.372)	Detailed information on an injection unit.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: nbi:nbi_unit (2091)

7.9.4.1.272 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.4.1.12)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.4.1.12)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.4.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.4.1.277)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ne_transp (2176)

7.9.4.1.273 neutral_complex_type

Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent

member	type	description
neutraltype(:)	coreneutrals_neutraltype (7.9.4.1.125)	Array (ntype) over neutral types. Time-dependent.
prad0	vecflt_type (7.9.4.1.14)	Power radiated by neutrals [W.m^-3]. Vector (nrho). Time-dependent.

Type of: coreneutrals:profiles (2069)

7.9.4.1.274 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.4.1.6)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)

member	type	description
vconv_eff	array3dflt_type (7.9.4.1.6)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.4.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.4.1.278)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ni_transp (2176)

7.9.4.1.275 nuclei

Array of nuclei considered.

member	type	description
zn	float (7.9.4.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.4.1.2)	Mass of atom [amu]
label	string (7.9.4.1.4)	String identifying element (e.g. H, D, T, He, C, ...)

Type of: compositions_type:nuclei (2148)

7.9.4.1.276 objects

Definition of space objects (nodes, edges, faces, cells, ...).; A space object of dimension n is defined; by enumerating the (n-1)-dimensional space objects defining its boundaries

member	type	description
boundary	matint_type (7.9.4.1.13)	Lists of (n-1)-dimensional space objects defining the boundary of an n-dimensional space object.; Matrix(number of objects of dimension n, maximum number of boundary objects).; First dimension: object index, second dimension: boundary object index
neighbour	array3dint_type (7.9.4.1.7)	Connectivity information. Array (number of objects, maximum number of boundaries per object, maximum number of neighbours per boundary).; Stores the indices of the n-dimensional objects adjacent to the given n-dimensional object.;An object can possibly have multiple neighbours on every boundary.; First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array4dflt_type (7.9.4.1.8)	Geometry data matrix associated with every object. Float array (number of objects, number of geometry coeff. 1, number of geometry coeff. 2, number of geometries).; The exact definition depends on the geometry type of the space (complexgrid_space.geotype).; First dimension: object index, second+third dimension: geometry coefficient matrix row+column, third dimension: geometry index (for definition of multiple geometries).
measure	matflt_type (7.9.4.1.12)	Measure of space objects, i.e. physical size (length for 1d, area for 2d, volume for 3d objects,...). [m^dim].; First dimension: object index, second dimension: geometry index

Type of: complexgrid_space:objects (2140)

7.9.4.1.277 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.4.1.14)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.4.1.14)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.4.1.14)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.4.1.14)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (2316) I transcoefel:off_diagonal (2450)

7.9.4.1.278 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.4.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.4.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.4.1.12)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (2318) I transcoefion:off_diagonal (2452) I transcoefvtor:off_diagonal (2453)

7.9.4.1.279 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.4.1.336)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.4.1.14)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (2193)

7.9.4.1.280 orbit_global_param

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.4.1.15)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.4.1.14)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.4.1.14)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.4.1.14)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	orbit_special_pos (7.9.4.1.283)	Special positions along an orbit (like turning points).

Type of: orbit:global_param (2093)

7.9.4.1.281 orbit_midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.4.1.282)	Position at outer mid-plane
inner	orbit_pos (7.9.4.1.282)	Position at inner mid-plane

Type of: orbit_special_pos:midplane (2327)

7.9.4.1.282 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.4.1.14)	Altitude [m]; Time-dependent; Vector (norbits).
phi	vecflt_type (7.9.4.1.14)	Toroidal angle [rad]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.4.1.14)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.4.1.14)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: orbit_midplane:inner (2325) I orbit_midplane:outer (2325) I orbit_turning_pts:lower (2328) I orbit_turning_pts:upper (2328)

7.9.4.1.283 orbit_special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	orbit_midplane (7.9.4.1.281)	Intersections with the midplane
turning_pts	orbit_turning_pts (7.9.4.1.284)	Location of turning points

Type of: orbit_global_param:special_pos (2324)

7.9.4.1.284 orbit_turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.4.1.282)	Position at upper turning point
lower	orbit_pos (7.9.4.1.282)	Position at lower turning point

Type of: orbit_special_pos:turning_pts (2327)

7.9.4.1.285 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.4.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.4.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.4.1.4)	Code parameters schema.

Type of

7.9.4.1.286 pelletpath

Description of the flight path of the pellet (assumed a straight line)

member	type	description
pivot_point	rzphi0D (7.9.4.1.341)	Pivot point of pellet path line. Scalar
horchordang	float (7.9.4.1.2)	Angle [rad] of horizontal projection of pellet path line with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.4.1.2)	Angle of pellet path with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.4.1.341)	Second point defining the pellet path line together with the pivot_point. Scalar

Type of: pellets:pelletpath (2094)

7.9.4.1.287 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.4.1.12)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.4.1.12)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (2185)

7.9.4.1.288 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.4.1.16)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.4.1.16)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.4.1.15)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.4.1.7)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (2095)

7.9.4.1.289 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.4.1.142)	Description of the coils
coilcurrent	exp1D (7.9.4.1.197)	Circuit feed current in the coil , defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.4.1.197)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)

Type of: pfsystems:pfcoils (2095)

7.9.4.1.290 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.4.1.16)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.4.1.12)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.4.1.12)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.4.1.291)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (2186)

7.9.4.1.291 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.4.1.13)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)

member	type	description
npoints	matint_type (7.9.4.1.13)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.4.1.340)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.4.1.6)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (2334)

7.9.4.1.292 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.4.1.15)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.4.1.15)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.4.1.339)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.4.1.12)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (2337)

7.9.4.1.293 pfpassive

Passive axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of coil. Array of strings (nelements)
area	vecflt_type (7.9.4.1.14)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.4.1.14)	Passive element resistance [Ohm]; Vector (nelements)
eta	vecflt_type (7.9.4.1.14)	Passive element resistivity [Ohm.m]; Vector (nelements)
pfpageometry	pfpageometry (7.9.4.1.292)	Geometry of the passive elements

Type of: pfsystems:pfpassive (2095)

7.9.4.1.294 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.4.1.143)	Description of the power supplies
voltage	exp1D (7.9.4.1.197)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.4.1.197)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (2095)

7.9.4.1.295 phaseellipse

Phase ellipse characteristics

member	type	description
invcurvrad	vecflt_type (7.9.4.1.14)	Inverse curvature radii for the phase ellipse [m-1], positive/negative for divergent/convergent beams, Vector (2). Time-dependent
angle	float (7.9.4.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (2378)

7.9.4.1.296 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.4.1.336)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.4.1.14)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].
radialhwidth	vecflt_type (7.9.4.1.14)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (2444)

7.9.4.1.297 plasma

Plasma flux from/to plasma facing wall surfaces

member	type	description
flux(:)	complexgrid_scalar (7.9.4.1.92)	Flux density of incoming particle flux [particles/(m^2 s)]; Time-dependent; Array of structures(number of plasma species); First dimension: index of plasma species (as given in species array)
b	complexgrid_vector_simplestruct (7.9.4.1.99)	Magnetic field vector at the surface [T]; Time-dependent;
energy(:)	complexgrid_scalar (7.9.4.1.92)	Average energy of incoming particles [eV]; Time-dependent; Array of structures (number of plasma species)
species(:)	species_desc (7.9.4.1.387)	Definition of plasma species (ions+neutrals); Array of structures (number of species)

Type of: wall:plasma (2107)

7.9.4.1.298 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.4.1.3)	Number of points in the distance grid. Integer
distance	vecflt_type (7.9.4.1.14)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.4.1.14)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (2112)

7.9.4.1.299 pol_decomp

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
mpol	vecint_type (7.9.4.1.15)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)

member	type	description
b_norm	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.4.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array3dflt_type (7.9.4.1.6)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.4.1.6)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.4.1.6)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (2250)

7.9.4.1.300 polarimetry

This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.

member	type	description
setup	msediag_setup_polarimetry (7.9.4.1.269)	diagnostic setup information
measure	exp1D (7.9.4.1.197)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)

Type of: msediag:polarimetry (2090)

7.9.4.1.301 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.4.1.14)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_p_im	vecflt_type (7.9.4.1.14)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.4.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.4.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.4.1.14)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.4.1.14)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (2118)

7.9.4.1.302 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.4.1.14)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent
phi_par	vecflt_type (7.9.4.1.14)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.4.1.14)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.4.1.12)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (2118)

7.9.4.1.303 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.4.1.126)	Electron pressure [Pa]; Time-dependent;
dpedt	coreprofile (7.9.4.1.126)	Time derivative of the electron pressure [Pa/s]; Time-dependent;
pi	coreprofion (7.9.4.1.127)	Ion pressure [Pa]; Time-dependent;
pi_tot	coreprofile (7.9.4.1.126)	Total ion pressure (sum of the species) [Pa]; Time-dependent;
dpi_totdt	coreprofile (7.9.4.1.126)	Time derivative of the total ion pressure [Pa/s]; Time-dependent;
pr_th	coreprofile (7.9.4.1.126)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.4.1.126)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.4.1.126)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.4.1.126)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.4.1.126)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jphi	coreprofile (7.9.4.1.126)	total toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent;
joh	coreprofile (7.9.4.1.126)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.4.1.126)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.4.1.126)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	sourceel (7.9.4.1.383)	ohmic heating [W/m^3]; Time-dependent;
qei	coreprofile (7.9.4.1.126)	Collisional heat transfer from electrons to ions (equipartition term) [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.4.1.126)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.4.1.126)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.4.1.126)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.4.1.126)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.4.1.127)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.4.1.127)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.4.1.127)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.4.1.126)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.4.1.126)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dvprimedt	coreprofile (7.9.4.1.126)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (2070)

7.9.4.1.304 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.4.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.4.1.14)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.4.1.14)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.4.1.14)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.4.1.14)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.4.1.14)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.4.1.14)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.4.1.14)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.4.1.14)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.4.1.14)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.4.1.14)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.4.1.14)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.4.1.14)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)

member	type	description
beta_pol	vecflt_type (7.9.4.1.14)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.4.1.14)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.4.1.14)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.4.1.14)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.4.1.14)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.4.1.14)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.4.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
dvdrho	vecflt_type (7.9.4.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to rho, i.e. dV/drho [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.4.1.14)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.4.1.14)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.4.1.14)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.4.1.14)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.4.1.14)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.4.1.14)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.4.1.14)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.4.1.14)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.4.1.14)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.4.1.14)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.4.1.14)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.4.1.14)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.4.1.14)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.4.1.14)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.4.1.14)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.4.1.14)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.4.1.14)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.4.1.14)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.4.1.14)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.4.1.14)	Poloidal flow function phi_flow = rho*v_pol*B_pol[kg/(V.s^2)]; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.4.1.14)	Definition to be provided; Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.4.1.14)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (2079)

7.9.4.1.305 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Signal value [Wb]; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.4.1.14)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.4.1.14)	Second order radial derivative (d2value/drho_tor2) [Wb.m^-2]; Time-dependent; Vector (nrho)
ddt_rhotorn	vecflt_type (7.9.4.1.14)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
ddt_phi	vecflt_type (7.9.4.1.14)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.4.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.4.1.75)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.4.1.237)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.4.1.126)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: coreprof:psi (2070)

7.9.4.1.306 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.4.1.4)	Storage method for this data
putaccess	string (7.9.4.1.4)	Instructions to access the data using this method
putlocation	string (7.9.4.1.4)	Name of this data under this method
rights	string (7.9.4.1.4)	Access rights to this data

Type of: datainfo:putinfo (2181)

7.9.4.1.307 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.4.1.14)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.4.1.336)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.4.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.4.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.4.1.14)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.4.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.4.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.4.1.14)	chiˆ2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (2234)

7.9.4.1.308 recycling_neutrals

Recycling coefficients

member	type	description
particles	vecflt_type (7.9.4.1.14)	Particle recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut,). Time-dependent.
energy	vecflt_type (7.9.4.1.14)	Energy recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:recycling (2127)

7.9.4.1.309 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.4.1.2)	Data value; Real
source	string (7.9.4.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.4.1.2)	Time (exact time slice used from the time array of the source signal); Real

Type of: summary:a_minor (2101) I summary:area (2101) I summary:beta_normal (2101) I summary:beta_pol (2101) I summary:beta_tor (2101) I summary:bvac_r (2101) I summary:elongation (2101) I summary:geom_axis_r (2101) I summary:impur1_a (2101) I summary:impur1_z (2101) I summary:ip (2101) I summary:li (2101) I summary:main_ion1_a (2101) I summary:main_ion1_z (2101) I summary:main_ion2_a (2101) I summary:main_ion2_z (2101) I summary:nev (2101) I summary:tev (2101) I summary:tiv (2101) I summary:tria_lower (2101) I summary:tria_upper (2101) I summary:volume (2101) I summary:zeffv (2101)

7.9.4.1.310 ref_nt

set of non-timed references

member	type	description
zerod_real	ref_nt_0dr (7.9.4.1.313)	0d reference of real type
zerod_int	ref_nt_0di (7.9.4.1.311)	0d reference of integer type
zerod_string	ref_nt_0ds (7.9.4.1.315)	0d reference of string type
oned_real	ref_nt_1dr (7.9.4.1.319)	1d reference of real type
oned_int	ref_nt_1di (7.9.4.1.317)	1d reference of integer type

Type of: reference:non_timed (2097)

7.9.4.1.311 ref_nt_0di

set of non-timed references of integer type

member	type	description
ref1	ref_nt_0di_ref (7.9.4.1.312)	Reference signal #1
ref2	ref_nt_0di_ref (7.9.4.1.312)	Reference signal #2
ref3	ref_nt_0di_ref (7.9.4.1.312)	Reference signal #3
ref4	ref_nt_0di_ref (7.9.4.1.312)	Reference signal #4

Type of: ref_nt:zerod_int (2354)

7.9.4.1.312 ref_nt_0di_ref

a non-timed reference of integer type

member	type	description
value	integer (7.9.4.1.3)	Value of the reference. Integer scalar.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_nt_0di:ref1 (2355) I ref_nt_0di:ref2 (2355) I ref_nt_0di:ref3 (2355) I ref_nt_0di:ref4 (2355)

7.9.4.1.313 ref_nt_0dr

set of non-timed references of real type

member	type	description
ref1	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #1
ref2	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #2
ref3	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #3
ref4	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #4
ref5	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #5
ref6	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #6
ref7	ref_nt_0dr_ref (7.9.4.1.314)	Reference signal #7

Type of: ref_nt:zerod_real (2354)

7.9.4.1.314 ref_nt_0dr_ref

a non-timed reference of real type

member	type	description
value	float (7.9.4.1.2)	Value of the reference. Real scalar.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_nt_0dr:ref1 (2357) I ref_nt_0dr:ref2 (2357) I ref_nt_0dr:ref3 (2357) I ref_nt_0dr:ref4 (2357) I ref_nt_0dr:ref5 (2357) I ref_nt_0dr:ref6 (2357) I ref_nt_0dr:ref7 (2357)

7.9.4.1.315 ref_nt_0ds

set of non-timed references of string type

member	type	description
ref1	ref_nt_0ds_ref (7.9.4.1.316)	Reference signal #1
ref2	ref_nt_0ds_ref (7.9.4.1.316)	Reference signal #2

Type of: ref_nt:zerod_string (2354)

7.9.4.1.316 ref_nt_0ds_ref

a non-timed reference of string type

member	type	description
value	string (7.9.4.1.4)	Value of the reference. String
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_nt_0ds:ref1 (2359) I ref_nt_0ds:ref2 (2359)

7.9.4.1.317 ref_nt_1di

set of non-timed references of vecint type

member	type	description
ref1	ref_nt_1di_ref (7.9.4.1.318)	Reference signal #1
ref2	ref_nt_1di_ref (7.9.4.1.318)	Reference signal #2
ref3	ref_nt_1di_ref (7.9.4.1.318)	Reference signal #3
ref4	ref_nt_1di_ref (7.9.4.1.318)	Reference signal #4

Type of: ref_nt:oned_int (2354)

7.9.4.1.318 ref_nt_1di_ref

a non-timed reference of vecint type

member	type	description
value	vecint_type (7.9.4.1.15)	Value of the reference. Vector of integers.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_nt_1di:ref1 (2361) I ref_nt_1di:ref2 (2361) I ref_nt_1di:ref3 (2361) I ref_nt_1di:ref4 (2361)

7.9.4.1.319 ref_nt_1dr

set of non-timed references of vecflt type

member	type	description
ref1	ref_nt_1dr_ref (7.9.4.1.320)	Reference signal #1
ref2	ref_nt_1dr_ref (7.9.4.1.320)	Reference signal #2
ref3	ref_nt_1dr_ref (7.9.4.1.320)	Reference signal #3
ref4	ref_nt_1dr_ref (7.9.4.1.320)	Reference signal #4
ref5	ref_nt_1dr_ref (7.9.4.1.320)	Reference signal #5

Type of: ref_nt:oned_real (2354)

7.9.4.1.320 ref_nt_1dr_ref

a non-timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the reference. Vector.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_nt_1dr:ref1 (2363) I ref_nt_1dr:ref2 (2363) I ref_nt_1dr:ref3 (2363) I ref_nt_1dr:ref4 (2363) I ref_nt_1dr:ref5

(2363)

7.9.4.1.321 ref_t

set of timed references

member	type	description
zerod_real	ref_t_0dr (7.9.4.1.324)	0d reference of real type
zerod_int	ref_t_0di (7.9.4.1.322)	0d reference of integer type
oned_real	ref_t_1dr (7.9.4.1.328)	1d reference of real type
oned_int	ref_t_1di (7.9.4.1.326)	1d reference of integer type

Type of: reference:timed (2097)

7.9.4.1.322 ref_t_0di

set of timed references of integer type

member	type	description
ref1	ref_t_0di_ref (7.9.4.1.323)	Reference signal #1
ref2	ref_t_0di_ref (7.9.4.1.323)	Reference signal #2
ref3	ref_t_0di_ref (7.9.4.1.323)	Reference signal #3
ref4	ref_t_0di_ref (7.9.4.1.323)	Reference signal #4

Type of: ref_t:zerod_int (2365)

7.9.4.1.323 ref_t_0di_ref

a timed reference of integer type

member	type	description
value	integer (7.9.4.1.3)	Value of the reference. Integer scalar. Time-dependent.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_t_0di:ref1 (2366) I ref_t_0di:ref2 (2366) I ref_t_0di:ref3 (2366) I ref_t_0di:ref4 (2366)

7.9.4.1.324 ref_t_0dr

set of timed references of real type

member	type	description
ref1	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #1
ref2	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #2
ref3	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #3
ref4	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #4
ref5	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #5
ref6	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #6
ref7	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #7
ref8	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #8
ref9	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #9
ref10	ref_t_0dr_ref (7.9.4.1.325)	Reference signal #10

Type of: ref_t:zerod_real (2365)

7.9.4.1.325 ref_t_0dr_ref

a timed reference of real type

member	type	description
value	float (7.9.4.1.2)	Value of the reference. Real scalar. Time-dependent.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_t_0dr:ref1 (2368) I ref_t_0dr:ref10 (2368) I ref_t_0dr:ref2 (2368) I ref_t_0dr:ref3 (2368) I ref_t_0dr:ref4 (2368) I ref_t_0dr:ref5 (2368) I ref_t_0dr:ref6 (2368) I ref_t_0dr:ref7 (2368) I ref_t_0dr:ref8 (2368) I ref_t_0dr:ref9 (2368)

7.9.4.1.326 ref_t_1di

set of timed references of vecint type

member	type	description
ref1	ref_t_1di_ref (7.9.4.1.327)	Reference signal #1
ref2	ref_t_1di_ref (7.9.4.1.327)	Reference signal #2
ref3	ref_t_1di_ref (7.9.4.1.327)	Reference signal #3
ref4	ref_t_1di_ref (7.9.4.1.327)	Reference signal #4

Type of: ref_t:oned_int (2365)

7.9.4.1.327 ref_t_1di_ref

a timed reference of vecint type

member	type	description
value	vecint_type (7.9.4.1.15)	Value of the reference. Vector of integers. Time-dependent.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_t_1di:ref1 (2370) I ref_t_1di:ref2 (2370) I ref_t_1di:ref3 (2370) I ref_t_1di:ref4 (2370)

7.9.4.1.328 ref_t_1dr

set of timed references of vecflt type

member	type	description
ref1	ref_t_1dr_ref (7.9.4.1.329)	Reference signal #1
ref2	ref_t_1dr_ref (7.9.4.1.329)	Reference signal #2
ref3	ref_t_1dr_ref (7.9.4.1.329)	Reference signal #3
ref4	ref_t_1dr_ref (7.9.4.1.329)	Reference signal #4
ref5	ref_t_1dr_ref (7.9.4.1.329)	Reference signal #5

Type of: ref_t:oned_real (2365)

7.9.4.1.329 ref_t_1dr_ref

a timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the reference. Vector. Time-dependent.
description	string (7.9.4.1.4)	Description of the reference. String.

Type of: ref_t_1dr:ref1 (2372) I ref_t_1dr:ref2 (2372) I ref_t_1dr:ref3 (2372) I ref_t_1dr:ref4 (2372) I ref_t_1dr:ref5 (2372)

7.9.4.1.330 ref_wall_typ

List of reference wall compositions; Array of structures (number of reference compositions)

member	type	description
label	string (7.9.4.1.4)	Label for this reference wall type
thickness	vecflt_type (7.9.4.1.14)	Thickness(m). Float vector, dimensions: 1. layer index
stochiometry	matflt_type (7.9.4.1.12)	Material composition of layer. Float matrix, dimensions: 1. layer index, 2. element number (numbering as in surface.elements/surface.compound array)
dx	matflt_type (7.9.4.1.12)	Cell spacings for 1d layer height discretization; Float matrix (max. number of cells for layer, layer index), dimensions: 1. cell index, 2. layer index

Type of: surface:ref_wall_typ (2440)

7.9.4.1.331 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.4.1.14)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.4.1.14)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (2150)

7.9.4.1.332 rfameasure

Measured values

member	type	description
ti	exp1D (7.9.4.1.197)	Ion temperature [eV]. Vector (nchannels)

Type of: rfadiag:measure (2098)

7.9.4.1.333 rfasetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.4.1.343)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: rfadiag:setup (2098)

7.9.4.1.334 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.4.1.390)	Spot characteristics
phaseellipse	phaseellipse (7.9.4.1.295)	Phase ellipse characteristics

Type of: antenna_ec:beam (2110) I antenna_lh:beam (2112)

7.9.4.1.335 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.4.1.2)	Major radius [m]
z	float (7.9.4.1.2)	Altitude [m]

Type of: circularcoil:centre (2125) I eqgeometry:active_limit (2235) I eqgeometry:geom_axis (2235) I eqgeometry:left_low_st (2235) I eqgeometry:left_up_st (2235) I eqgeometry:right_low_st (2235) I eqgeometry:right_up_st (2235) I mag_axis:position (2296)

7.9.4.1.336 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius [m]
z	vecflt_type (7.9.4.1.14)	Altitude [m]

Type of: flush:position (2245) I isoflux:position (2280) I limiter_unit:position (2291) I mhd_ideal_wall2d:position (2301) I mhd_res_wall2d:position (2303) I omnigen_surf:rz (2323) I planecoil:coordinates (2340) I q:position (2351) I setup_bprobe:position (2414) I straps:coord_strap (2439) I vessel:position (2106) I wall_blocks_unit:position (2473) I wall_vessel_annular:inside (2476) I wall_vessel_annular:outside (2476) I xpts:position (2489)

7.9.4.1.337 rz1D_npoints

Structure for list of R,Z positions (1D), with mention of the number of points relevant for a given time slice

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.4.1.14)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.4.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

7.9.4.1.338 rz1Dexp

Structure for list of R,Z positions (1D), with R and Z time-depent and experimental.

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius [m]. Vector(npoints). Time-dependent
z	vecflt_type (7.9.4.1.14)	Altitude [m]. Vector(npoints). Time-dependent

Type of: eqgeometry:boundary (2235) I eqgeometry:xpts (2235)

7.9.4.1.339 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.4.1.12)	Major radius [m]
z	matflt_type (7.9.4.1.12)	Altitude [m]

Type of: coord_sys:position (2150) I geom_iron:rzcoordinate (2267) I pfpageometry:rzcoordinate (2336)

7.9.4.1.340 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.4.1.6)	Major radius [m]
z	array3dflt_type (7.9.4.1.6)	Altitude [m]

Type of: pfgeometry:rzcoordinate (2335)

7.9.4.1.341 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.4.1.2)	Major radius [m]
z	float (7.9.4.1.2)	Altitude [m]
phi	float (7.9.4.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (2110) I antenna_lh:position (2112) I fusiondiag_voxels:centre (2266) I fusiondiag_voxels:direction (2266) I msediag_setup:pivot_point (2312) I msediag_setup:second_point (2312) I pelletpath:pivot_point (2330) I pelletpath:second_point (2330) I setup_inject:position (2416)

7.9.4.1.342 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius [m]
z	vecflt_type (7.9.4.1.14)	Altitude [m]
phi	vecflt_type (7.9.4.1.14)	Toroidal angle [rad]

Type of: ablationrate:position (2109) I beamlets:position (2117) I deposprofile:position (2182) I edges:edge_rzphi (2229) I fusiondiag_colliunit_circ:centre (2255) I halpha_setup:pivot_point (2272) I halpha_setup:second_point (2272) I launchs:position (2085) I lithsetup:position (2294) I msediag_emiss_chord:setup (2307) I setup_line:pivot_point (2417) I setup_line:second_point (2417) I setup_line:third_point (2417) I tssetup:position (2455)

7.9.4.1.343 rzphi1Dexp

Structure for list of R,Z,phi positions (1D)

member	type	description
r	exp1D (7.9.4.1.197)	Major radius [m]
z	exp1D (7.9.4.1.197)	Altitude [m]
phi	exp1D (7.9.4.1.197)	Toroidal angle [rad]

Type of: cxsetup:position (2179) I ecesetup:position (2220) I lang_derived:position (2282) I lang_measure:position (2283) I rfasetup:position (2377)

7.9.4.1.344 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.4.1.12)	Major radius [m]
z	matflt_type (7.9.4.1.12)	Altitude [m]
phi	matflt_type (7.9.4.1.12)	Toroidal angle [rad]

Type of: fusiondiag_colliunit_poly:nodes (2256) I setup_floops:position (2415)

7.9.4.1.345 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.4.1.6)	Major radius [m]
z	array3dflt_type (7.9.4.1.6)	Altitude [m]
phi	array3dflt_type (7.9.4.1.6)	Toroidal angle [rad]

Type of: turbcoordsys:position (2457)

7.9.4.1.346 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.4.1.14)	Position : major radius [m]
z	vecflt_type (7.9.4.1.14)	Position : altitude [m]
phi	vecflt_type (7.9.4.1.14)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.4.1.14)	Width : major radius [m]
dz	vecflt_type (7.9.4.1.14)	Width : altitude [m]
dphi	vecflt_type (7.9.4.1.14)	Width : toroidal angle [rad]

Type of: msediag_setup_polarimetry:rzgamma (2313)

7.9.4.1.347 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.4.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.4.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.4.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.4.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (2099)

7.9.4.1.348 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.4.1.14)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.4.1.12)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.4.1.14)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.4.1.12)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.4.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.4.1.14)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.4.1.14)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.4.1.14)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.4.1.14)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (2099)

7.9.4.1.349 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.4.1.366)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.4.1.366)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.4.1.366)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.4.1.366)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.4.1.366)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.4.1.366)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.4.1.366)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.4.1.366)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.4.1.366)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.4.1.366)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.4.1.366)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (2100)

7.9.4.1.350 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.4.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.4.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.4.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.4.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.4.1.15)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.4.1.14)	Atomic mass number (for pellet injector); Vector (nion)

member	type	description
pellet_zn	vecflt_type (7.9.4.1.14)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.4.1.14)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.4.1.14)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (2100)

7.9.4.1.351 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.4.1.358)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.4.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.4.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.4.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.4.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.4.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.4.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.4.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.4.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.4.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.4.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.4.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.4.1.4)	chemical compostion of the divertor
coordinate	string (7.9.4.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.4.1.366)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.4.1.366)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.4.1.358)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.4.1.366)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.4.1.366)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.4.1.358)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.4.1.366)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.4.1.366)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.4.1.358)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.4.1.366)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.4.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.4.1.366)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.4.1.366)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.4.1.366)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.4.1.366)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.4.1.366)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.4.1.366)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (2100)

7.9.4.1.352 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.4.1.366)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.4.1.366)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.4.1.366)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.4.1.366)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.4.1.366)	electron energy confimenent time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.4.1.366)	ion energy confinement time [s]. Time-dependent.

member	type	description
tau_e_ei	scenario_ref (7.9.4.1.366)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.4.1.366)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.4.1.366)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (2100)

7.9.4.1.353 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.4.1.366)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.4.1.366)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.4.1.366)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.4.1.366)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.4.1.366)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.4.1.366)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.4.1.366)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.4.1.366)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.4.1.366)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.4.1.366)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.4.1.366)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.4.1.366)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.4.1.366)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.4.1.366)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.4.1.366)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (2100)

7.9.4.1.354 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.4.1.366)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.4.1.366)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.4.1.366)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.4.1.366)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.4.1.366)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.4.1.366)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.4.1.366)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.4.1.366)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.4.1.366)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.4.1.366)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.4.1.366)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.4.1.366)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (2100)

7.9.4.1.355 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.4.1.366)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.4.1.366)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.4.1.366)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.4.1.366)	time derivative of Wdia [W]. Time-dependent.

member	type	description
w_b_tor_pla	scenario_ref (7.9.4.1.366)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.4.1.366)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.4.1.366)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.4.1.366)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.4.1.366)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.4.1.366)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.4.1.366)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.4.1.366)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.4.1.366)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.4.1.366)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.4.1.366)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.4.1.366)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (2100)

7.9.4.1.356 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.4.1.366)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.4.1.366)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.4.1.366)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.4.1.366)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.4.1.366)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.4.1.366)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.4.1.366)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.4.1.366)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.4.1.366)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.4.1.366)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.4.1.366)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.4.1.366)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.4.1.366)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.4.1.366)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.4.1.366)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.4.1.366)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (2100)

7.9.4.1.357 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.4.1.366)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.4.1.366)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.4.1.366)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.4.1.366)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.4.1.366)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.4.1.366)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.4.1.366)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.4.1.366)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.4.1.366)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.4.1.366)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.4.1.366)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.4.1.366)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.4.1.366)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.4.1.366)	Bremsstrahlung radition losses [W]. Time-dependent.

member	type	description
pcyclo	scenario_ref (7.9.4.1.366)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.4.1.366)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.4.1.366)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.4.1.366)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.4.1.366)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.4.1.366)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.4.1.366)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.4.1.366)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.4.1.366)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.4.1.366)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.4.1.366)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.4.1.366)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.4.1.366)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.4.1.366)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.4.1.366)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.4.1.366)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.4.1.366)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.4.1.366)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.4.1.366)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.4.1.366)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.4.1.366)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.4.1.366)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.4.1.366)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.4.1.366)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (2100)

7.9.4.1.358 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.4.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.4.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (2395) I scenario_configuration:ecrh_harm (2395) I scenario_configuration:ecrh_mode (2395) I scenario_configuration:grad_b_drift (2395) I scenario_itb:itb_type (2403)

7.9.4.1.359 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.4.1.366)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.4.1.366)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.4.1.366)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.4.1.366)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.4.1.366)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.4.1.366)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.4.1.366)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.4.1.366)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.4.1.366)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.4.1.366)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.4.1.366)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.4.1.358)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (2100)

7.9.4.1.360 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.4.1.366)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.4.1.366)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.4.1.366)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.4.1.366)	limiter/divertor ion density [m^-3]. Time-dependent.
p_peak_div	scenario_ref (7.9.4.1.366)	peak power on divertor [W]. Time-dependent.
surf_temp	scenario_ref (7.9.4.1.366)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.4.1.366)	Power flux on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.4.1.366)	radiative power in the divertor zone [W]. Time-dependent.
wall_temp	scenario_ref (7.9.4.1.366)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.4.1.366)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.4.1.366)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.4.1.366)	flux pump out for each ion species [s^-1]. Time-dependent.

Type of: scenario:lim_div_wall (2100)

7.9.4.1.361 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.4.1.366)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.4.1.366)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.4.1.366)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.4.1.366)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (2100)

7.9.4.1.362 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.4.1.366)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.4.1.366)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.4.1.366)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.4.1.366)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.4.1.366)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.4.1.366)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (2100)

7.9.4.1.363 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.4.1.366)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.4.1.366)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.4.1.366)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.4.1.366)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.4.1.366)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.4.1.366)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.4.1.366)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.

member	type	description
ne_95	scenario_ref (7.9.4.1.366)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.4.1.366)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.4.1.366)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.4.1.366)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.4.1.366)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (2100)

7.9.4.1.364 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.4.1.366)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.4.1.366)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.4.1.366)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.4.1.366)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.4.1.366)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.4.1.366)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.4.1.366)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.4.1.366)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.4.1.366)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.4.1.366)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (2100)

7.9.4.1.365 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.4.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (2100)

7.9.4.1.366 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.4.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.4.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (2393) I scenario_centre:Zmag (2393) I scenario_centre:ne0 (2393) I scenario_centre:ni0 (2393) I scenario_centre:phi0 (2393) I scenario_centre:psi0 (2393) I scenario_centre:q0 (2393) I scenario_centre:shift0 (2393) I scenario_centre:te0 (2393) I scenario_centre:ti0 (2393) I scenario_centre:vtor_0 (2393) I scenario_configuration:LH_freq (2395) I scenario_configuration:LH_npar (2395) I scenario_configuration:ecrh_freq (2395) I scenario_configuration:ecrh_loc (2395) I scenario_configuration:ecrh_pol_ang (2395) I scenario_configuration:ecrh_tor_ang (2395) I scenario_configuration:enb (2395) I scenario_configuration:icrh_freq (2395) I scenario_configuration:icrh_phase (2395) I scenario_configuration:pellet_ang (2395) I scenario_configuration:pellet_nba (2395) I scenario_configuration:pellet_v (2395) I scenario_configuration:r_nbi (2395) I scenario_confinement:tau_cur_diff (2396) I scenario_confinement:tau_e (2396) I scenario_confinement:tau_e_ee (2396) I scenario_confinement:tau_e_ei (2396) I scenario_confinement:tau_e_ii (2396) I scenario_confinement:tau_h_sc (2396) I scenario_confinement:tau_he (2396) I scenario_confinement:tau_i_rol (2396) I scenario_confinement:tau_l_sc (2396) I scenario_currents:RR (2397) I scenario_currents:i_align (2397) I scenario_currents:i_boot (2397) I scenario_currents:i_cd_tot (2397) I scenario_currents:i_eccd (2397) I scenario_currents:i_fast_ion (2397) I scenario_currents:i_fwcd (2397) I scenario_currents:i_lhcd (2397) I scenario_currents:i_nbicd (2397) I scenario_currents:i_ni_tot (2397) I scenario_currents:i_ohm (2397) I scenario_currents:i_par (2397) I scenario_currents:i_runaway (2397) I scenario_currents:v_loop (2397) I scenario_currents:v_meas (2397) I scenario_edge:drho_edge_dt (2398) I scenario_edge:ne_edge (2398) I scenario_edge:neutral_flux (2398) I scenario_edge:ni_edge (2398) I scenario_edge:phi_edge (2398) I scenario_edge:phi_plasma (2398) I scenario_edge:psi_edge (2398) I scenario_edge:q_edge (2398) I scenario_edge:rho_edge (2398) I scenario_edge:te_edge (2398) I scenario_edge:ti_edge (2398) I scenario_edge:vtor_edge (2398) I scenario_energy:dwbpol_dt (2399) I scenario_energy:dwbtorpla_dt (2399) I scenario_energy:dwdia_dt (2399) I scenario_energy:dwth_dt (2399) I scenario_energy:dwtot_dt (2399) I scenario_energy:esup_alpha (2399) I scenario_energy:esup_icrhper (2399) I scenario_energy:esup_icrhtot (2399) I scenario_energy:esup_lhcd (2399) I scenario_energy:esup_nbiperp (2399) I scenario_energy:esup_nbitot (2399) I scenario_energy:w_b_pol (2399) I scenario_energy:w_b_tor_pla (2399) I scenario_energy:w_dia (2399) I scenario_energy:w_th (2399) I scenario_energy:w_tot (2399) I scenario_global:area_ext (2400) I scenario_global:area_pol (2400) I scenario_global:beta_n_th (2400) I scenario_global:beta_normal (2400) I scenario_global:beta_pol (2400) I scenario_global:beta_pol_th (2400) I scenario_global:beta_tor (2400) I scenario_global:beta_tor_th (2400) I scenario_global:dip_dt (2400) I scenario_global:disruption (2400) I scenario_global:ip (2400) I scenario_global:len_sepa (2400) I scenario_global:li (2400) I scenario_global:mode_h (2400) I scenario_global:s_alpha (2400) I scenario_global:volume (2400) I scenario_heat_power:p_l2h_sc (2401) I scenario_heat_power:p_l2h_thr (2401) I scenario_heat_power:p_nbi_icrh (2401) I scenario_heat_power:p_w (2401) I scenario_heat_power:p_wth (2401) I scenario_heat_power:padd_tot (2401) I scenario_heat_power:pbrem (2401) I scenario_heat_power:pcyclo (2401) I scenario_heat_power:pdd_fus (2401) I scenario_heat_power:pecrh (2401) I scenario_heat_power:pecrh_th (2401) I scenario_heat_power:pei (2401) I scenario_heat_power:pel_fus (2401) I scenario_heat_power:pel_icrh (2401) I scenario_heat_power:pel_nbi (2401) I scenario_heat_power:pel_tot (2401) I scenario_heat_power:pfus_dt (2401) I scenario_heat_power:pfus_nbi (2401) I scenario_heat_power:pfus_th (2401) I scenario_heat_power:picrh (2401) I scenario_heat_power:picrh_th (2401) I scenario_heat_power:pion_fus (2401) I scenario_heat_power:pion_icrh (2401) I scenario_heat_power:pion_nbi (2401) I scenario_heat_power:pion_tot (2401) I scenario_heat_power:pioniz (2401) I scenario_heat_power:plh (2401) I scenario_heat_power:plh_th (2401) I scenario_heat_power:ploss (2401) I scenario_heat_power:ploss_fus (2401) I scenario_heat_power:ploss_icrh (2401) I scenario_heat_power:ploss_nbi (2401) I scenario_heat_power:pnbi (2401) I scenario_heat_power:pnbi_co_cur (2401) I scenario_heat_power:pnbi_counter (2401) I scenario_heat_power:pnbi_th (2401) I scenario_heat_power:pohmic (2401) I scenario_heat_power:prad (2401) I scenario_itb:h_itb (2403) I scenario_itb:ne_itb (2403) I scenario_itb:ni_itb (2403) I scenario_itb:phi_itb (2403) I scenario_itb:psi_itb (2403) I scenario_itb:q_min (2403) I scenario_itb:rho_itb (2403) I scenario_itb:te_itb (2403) I scenario_itb:ti_itb (2403) I scenario_itb:vtor_itb (2403) I scenario_itb:width_itb (2403) I scenario_lim_div_wall:detach_st (2404) I scenario_lim_div_wall:ne_lim_div (2404) I scenario_lim_div_wall:ni_lim_div (2404) I scenario_lim_div_wall:p_lim_div (2404) I scenario_lim_div_wall:p_peak_div (2404) I scenario_lim_div_wall:p_rad_div (2404) I scenario_lim_div_wall:pump_flux (2404) I scenario_lim_div_wall:surf_temp (2404) I scenario_lim_div_wall:te_lim_div (2404) I scenario_lim_div_wall:ti_lim_div (2404) I scenario_lim_div_wall:wall_state (2404) I scenario_lim_div_wall:wall_temp (2404) I scenario_line_ave:dne_line_dt (2405) I scenario_line_ave:ne_line (2405) I scenario_line_ave:ne_zeff_line (2405) I scenario_line_ave:zeff_line (2405) I scenario_neutron:ndd_nbi_nbi (2406) I scenario_neutron:ndd_nbi_th (2406) I scenario_neutron:ndd_th (2406) I scenario_neutron:ndd_tot (2406) I scenario_neutron:ndt_th (2406) I scenario_neutron:ndt_tot (2406) I scenario_ninety_five:elon (2407) I scenario_ninety_five:ne_95 (2407) I scenario_ninety_five:ni_95 (2407) I scenario_ninety_five:phi_95 (2407) I scenario_ninety_five:q_95 (2407) I scenario_ninety_five:rho_95 (2407) I scenario_ninety_five:te_95 (2407) I scenario_ninety_five:ti_95 (2407) I scenario_ninety_five:tria_95 (2407) I scenario_ninety_five:tria_lo_95 (2407) I scenario_ninety_five:tria_up_95 (2407) I scenario_ninety_five:vtor_95 (2407) I scenario_pedestal:ne_ped (2408) I scenario_pedestal:ni_ped (2408) I scenario_pedestal:phi_ped (2408) I scenario_pedestal:pressure_ped (2408) I scenario_pedestal:psi_ped (2408) I scenario_pedestal:q_ped (2408) I scenario_pedestal:rho_ped (2408) I scenario_pedestal:te_ped (2408) I scenario_pedestal:ti_ped (2408) I scenario_pedestal:vtor_ped (2408) I scenario_references:bvac_r (2411) I scenario_references:enhancement (2411) I scenario_references:gas_puff (2411) I scenario_references:ip (2411) I scenario_references:isotopic (2411) I scenario_references:nbar (2411) I scenario_references:nbi_td_ratio (2411) I scenario_references:pecrh (2411) I scenario_references:picrh (2411) I scenario_references:plh (2411) I scenario_references:pnbi (2411) I scenario_references:pol_flux (2411) I scenario_references:xecrh (2411) I scenario_references:zeffl (2411) I scenario_sol:gas_puff (2412) I scenario_sol:l_ne_sol (2412) I scenario_sol:l_ni_sol (2412) I scenario_sol:l_qe_sol (2412) I scenario_sol:l_qi_sol (2412) I scenario_sol:l_te_sol (2412) I scenario_sol:l_ti_sol (2412) I scenario_sol:p_rad_sol (2412) I scenario_vol_ave:dne_ave_dt (2413) I scenario_vol_ave:meff_ave (2413) I scenario_vol_ave:ne_ave (2413) I scenario_vol_ave:ni_ave (2413) I scenario_vol_ave:omega_ave (2413) I scenario_vol_ave:pellet_flux (2413) I scenario_vol_ave:te_ave (2413) I scenario_vol_ave:ti_ave (2413) I scenario_vol_ave:ti_o_te_ave (2413) I scenario_vol_ave:zeff_ave (2413)

7.9.4.1.367 scenario_references

References

member	type	description
plh	scenario_ref (7.9.4.1.366)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.4.1.366)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.4.1.366)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.4.1.366)	neutral beam injection power [W]. Time-dependent.

member	type	description
ip	scenario_ref (7.9.4.1.366)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.4.1.366)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.4.1.366)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.4.1.366)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.4.1.366)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.4.1.366)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.4.1.366)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.4.1.366)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.4.1.366)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.4.1.366)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (2100)

7.9.4.1.368 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.4.1.366)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.4.1.366)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.4.1.366)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.4.1.366)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.4.1.366)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.4.1.366)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.4.1.366)	radiative power of the SOL [W]. Time-dependent.
gas_puff	scenario_ref (7.9.4.1.366)	gas puff flux for each ion species [s^-1]. Time-dependent.

Type of: scenario:sol (2100)

7.9.4.1.369 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.4.1.366)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.4.1.366)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.4.1.366)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.4.1.366)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.4.1.366)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.4.1.366)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.4.1.366)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.4.1.366)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.4.1.366)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.4.1.14)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.4.1.366)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (2100)

7.9.4.1.370 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.4.1.16)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.4.1.336)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.4.1.14)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.4.1.14)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)

member	type	description
area	vecflt_type (7.9.4.1.14)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.4.1.14)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.4.1.15)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (2124)

7.9.4.1.371 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.4.1.16)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.4.1.16)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.4.1.344)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.4.1.15)	Number of points describing each loop in the "position" matrices. Vector (nloops)

Type of: flux_loops:setup_floops (2246)

7.9.4.1.372 setup_inject

Detailed information on an injection unit.

member	type	description
position	rzphi0D (7.9.4.1.341)	Position of centre of injection unit surface.
tang_rad	float (7.9.4.1.2)	Tagency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.4.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.4.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
focal_len_hz	float (7.9.4.1.2)	Horizontal focal length along the beam line [m]
focal_len_vc	float (7.9.4.1.2)	Vertical focal length along the beam line [m]
divergence	divergence (7.9.4.1.173)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.4.1.73)	Detailed information on beamlets.

Type of: nbi_unit:setup_inject (2315)

7.9.4.1.373 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.4.1.342)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.4.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.4.1.14)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.4.1.14)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.4.1.342)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.4.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.4.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.4.1.342)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.4.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: fusiondiag_colli_circ:setup_line (2252) I fusiondiag_colli_poly:setup_line (2253) I lineintegraldiag:setup_line (2292)

7.9.4.1.374 shape

Pellet shape

member	type	description
shape_sph	shape_sph (7.9.4.1.376)	Pellet shape
shape_cyl	shape_cyl (7.9.4.1.375)	Pellet shape

Type of: pellets:shape (2094)

7.9.4.1.375 shape_cyl

Pellet shape

member	type	description
radius	float (7.9.4.1.2)	Pellet radius (m)
height	float (7.9.4.1.2)	Pellet height (m)

Type of: shape:shape_cyl (2418)

7.9.4.1.376 shape_sph

Pellet shape

member	type	description
radius	float (7.9.4.1.2)	Pellet radius (m)

Type of: shape:shape_sph (2418)

7.9.4.1.377 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	matflt_type (7.9.4.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Array2d (nrho,nzimp)
imp	matflt_type (7.9.4.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Array2d (nrho,nzimp)

Type of: coresource_values:qz (2172) I coresource_values:sz (2172)

7.9.4.1.378 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.4.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.4.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource_values:qi (2172) I coresource_values:si (2172) I coresource_values:ui (2172)

7.9.4.1.379 source_mark

Source given as a set of markers (test particles)

member	type	description
var_coord	vecint_type (7.9.4.1.15)	Identifies the coordinates specifies in var1, var2, var3, var4, var5, var6 and var7. var_coord(K) describe the coordinate represented in varK, for K=1,2...7. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
var1	vecflt_type (7.9.4.1.14)	Phase space variable number one characterising the markers. Time-dependent; Vector (n_particles)
var2	vecflt_type (7.9.4.1.14)	Phase space variable number two characterising the markers. Time-dependent; Vector (n_particles)
var3	vecflt_type (7.9.4.1.14)	Phase space variable number three characterising the markers. Time-dependent; Vector (n_particles)
var4	vecflt_type (7.9.4.1.14)	Phase space variable number four characterising the markers. Time-dependent; Vector (n_particles)
var5	vecflt_type (7.9.4.1.14)	Phase space variable number five characterising the markers. Time-dependent; Vector (n_particles)
var6	vecflt_type (7.9.4.1.14)	Phase space variable number six characterising the markers. Time-dependent; Vector (n_particles)
var7	vecflt_type (7.9.4.1.14)	Phase space variable number seven characterising the markers. Time-dependent; Vector (n_particles)
weight	vecflt_type (7.9.4.1.14)	Weight of the markers; Time-dependent; Vector (n_particles)

7.9.4.1.380 source_on_grid

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid_info	grid_info (7.9.4.1.226)	Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.
dim1	array6dflt_type (7.9.4.1.10)	Grid in the first dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim2	array6dflt_type (7.9.4.1.10)	Grid in the second dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim3	array6dflt_type (7.9.4.1.10)	Grid in the third dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim4	array6dflt_type (7.9.4.1.10)	Grid in the fourth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim5	array6dflt_type (7.9.4.1.10)	Grid in the fifth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim6	array6dflt_type (7.9.4.1.10)	Grid in the sixth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
jacobian	array6dflt_type (7.9.4.1.10)	Jacobian of the phase space grid coordinate system specified in grid_coord. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
source	array6dflt_type (7.9.4.1.10)	Source rate of particles in phase space. The units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if continuous. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)

Type of: distsource_source:source_grid (2216)

7.9.4.1.381 source_rate

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid	complexgrid (7.9.4.1.87)	Grid for storing the source-rate. Time-dependent; Complexgrid
value	complexgrid_scalar (7.9.4.1.92)	The source-rate of particles in phase space, given on GRID. The units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if the grid is continuous. Time-dependent; Complexgrid_scalar

Type of: distsource_source:source_rate (2216)

7.9.4.1.382 source_vec

Subtree containing vector source term (radial dimension only)

member	type	description
exp	vecflt_type (7.9.4.1.14)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.4.1.14)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource_values:qe (2172) I coresource_values:se (2172) I coresource_values:ujxb (2172)

7.9.4.1.383 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.4.1.14)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.4.1.14)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.4.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (2154) I profiles1d:qoh (2347)

7.9.4.1.384 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	matflt_type (7.9.4.1.12)	Value of the source term [m^-3.s^-1]; Time-dependent; Array2D (nrho,nzimp)
integral	matflt_type (7.9.4.1.12)	Integral from 0 to rho of the source term. Time-dependent; Array2D(nrho,nzimp)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:source_term (2277)

7.9.4.1.385 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.4.1.12)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.4.1.12)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.4.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (2155)

7.9.4.1.386 species

Pellet composition

member	type	description
amn	vecflt_type (7.9.4.1.14)	Atomic mass number (lumped species are allowed); Vector (nspecies)
zn	vecflt_type (7.9.4.1.14)	Nuclear charge (lumped species are allowed); Vector (nspecies)
concentr	vecflt_type (7.9.4.1.14)	Concentration of species on pellet ranging from 0 to 1; Vector (nspecies)
subl_energy	vecflt_type (7.9.4.1.14)	Sublimation energy per atom of species on pellet in eV; Vector (nspecies)

Type of: pellets:species (2094)

7.9.4.1.387 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.4.1.4)	Name of species
amn	float (7.9.4.1.2)	Atomic mass number of the species
zn	float (7.9.4.1.2)	Nuclear charge of the impurity
zmin	float (7.9.4.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.4.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (2077) I plasma:species (2341)

7.9.4.1.388 spectral

This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.

member	type	description
emissivity	msediag_emissivity (7.9.4.1.264)	Emissivity characteristics.
radiance	msediag_radiance (7.9.4.1.267)	Emissivity characteristics.
codeparam	codeparam (7.9.4.1.82)	Code parameters

Type of: msediag:spectral (2090)

7.9.4.1.389 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.4.1.242)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.4.1.241)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (2085)

7.9.4.1.390 spot

Spot characteristics

member	type	description
size	vecflt_type (7.9.4.1.14)	Size of the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.4.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (2378)

7.9.4.1.391 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	vecflt_type (7.9.4.1.14)	Effective coefficient of physical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.
chemical	vecflt_type (7.9.4.1.14)	Effective coefficient of chemical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:sputtering (2127)

7.9.4.1.392 src_snk_fav

member	type	description
particles	vecflt_type (7.9.4.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.4.1.14)	Power density associated with the source/sink of particles [W/m^3]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.4.1.14)	Torque density due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.4.1.393 src_snk_int

member	type	description
particles	vecflt_type (7.9.4.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.4.1.14)	Power associated with the source/sink of particles [MW/m^3]; Time-dependent; Vector(npsi)
torque	vecflt_type (7.9.4.1.14)	Torque due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.4.1.394 src_snk_tot

member	type	description
particles	float (7.9.4.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.4.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.4.1.2)	Torque due to the source/sink of particles [Nm]; Time-dependent

7.9.4.1.395 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
phase	exp0D (7.9.4.1.196)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.4.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.4.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.4.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float
coord_strap	rz1D (7.9.4.1.336)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (2113)

7.9.4.1.396 surface

State of plasma facing wall surfaces

member	type	description
ref_wall_typ(:)	ref_wall_typ (7.9.4.1.330)	List of reference wall compositions; Array of structures (number of reference compositions)
wall_type	complexgrid_scalar_int (7.9.4.1.94)	Definition of reference wall composition for every wall element; All other fields in this surface data structure refer to the geometric objects identified by the grid/subgrid in this field, in exactly the order given by the subgrid.
layers	layers (7.9.4.1.246)	Data on wall element layers
h_inventory	h_inventory (7.9.4.1.227)	Data on wall element hydrogen inventories
elements(:)	element_desc (7.9.4.1.187)	Description of atomic elements used in wall element layer compositions
compounds(:)	compound_desc (7.9.4.1.105)	Description of chemical compounds used in wall element layer compositions

Type of: wall:surface (2107)

7.9.4.1.397 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
table_0d	float (7.9.4.1.2)	NO DOCS
table_1d	vecflt_type (7.9.4.1.14)	NO DOCS
table_2d	matflt_type (7.9.4.1.12)	NO DOCS
table_3d	array3dflt_type (7.9.4.1.6)	NO DOCS
table_4d	array4dflt_type (7.9.4.1.8)	NO DOCS
table_5d	array5dflt_type (7.9.4.1.9)	NO DOCS

member	type	description
table_6d	array6dflt_type (7.9.4.1.10)	NO DOCS

Type of: tables:table (2442)

7.9.4.1.398 tables

Definition of a process

member	type	description
ndim	integer (7.9.4.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.4.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.4.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.4.1.4)	Unit of the process result
result_trans	integer (7.9.4.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()
table(:)	table (7.9.4.1.397)	Array of data tables, one entry per species. Vector(nchargestates)
data_source	string (7.9.4.1.4)	Filename or subroutine name used to provide this data.
data_provide	string (7.9.4.1.4)	ITM responsible person for this data.
data_citation	string (7.9.4.1.4)	Reference to publication(s).

Type of: amns:tables (2064)

7.9.4.1.399 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords(:)	coords (7.9.4.1.108)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (2064)

7.9.4.1.400 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.4.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.4.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.4.1.81)	Circular coil description
planecoil	planecoil (7.9.4.1.296)	Plane coil description
structure	tf_structure (7.9.4.1.401)	Inner TF coil structure

Type of: toroidfield:desc_tfcoils (2103)

7.9.4.1.401 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.4.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.4.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.4.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.4.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.4.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.4.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.4.1.2)	Amplification factor for magnetic field
ritf	float (7.9.4.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.4.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.4.1.2)	External TF coil radius [m]; Scalar

Type of: tf_desc_tfcoils:structure (2444)

7.9.4.1.402 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.4.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.4.1.12)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (2481)

7.9.4.1.403 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.4.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.4.1.10)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.4.1.10)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.4.1.10)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.4.1.10)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.4.1.10)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).
dim6	array6dflt_type (7.9.4.1.10)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.4.1.10)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.4.1.10)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.4.1.404 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.4.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.4.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.4.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.4.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (2070)

7.9.4.1.405 trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.4.1.12)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.4.1.15)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.4.1.12)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.4.1.12)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
phi	matflt_type (7.9.4.1.12)	Toroidal angle of the guiding centre [rad]; Time-dependent; Matrix (norbits, max_ntorb).

member	type	description
psi	matflt_type (7.9.4.1.12)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.4.1.12)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.4.1.12)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.4.1.12)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:trace (2093)

7.9.4.1.406 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.4.1.14)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.4.1.14)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.4.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.4.1.277)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:te_transp (2176) I neoclassic:mtor_neo (2092) I neoclassic:ne_neo (2092) I neoclassic:te_neo (2092)

7.9.4.1.407 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	matflt_type (7.9.4.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array2d (nrho,nzimp)
vconv_eff	matflt_type (7.9.4.1.12)	Effective convection [m.s^-1]. Time-dependent. Array2d (nrho,nzimp)
exchange	matflt_type (7.9.4.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array2d (nrho,nzimp)
flux	matflt_type (7.9.4.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array2d (nrho,nzimp)
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp_values:nz_transp (2176) I coretransp_values:tz_transp (2176) I neoclassic:nz_neo (2092) I neoclassic:tz_neo (2092)

7.9.4.1.408 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.4.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.4.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.4.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.4.1.12)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.4.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.4.1.278)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ti_transp (2176) I neoclassic:ni_neo (2092) I neoclassic:ti_neo (2092)

7.9.4.1.409 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.4.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.4.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.4.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.4.1.278)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.4.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:vtor_transp (2176)

7.9.4.1.410 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.4.1.197)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.4.1.197)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (2104)

7.9.4.1.411 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.4.1.342)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (2104)

7.9.4.1.412 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.4.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.4.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.4.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
ie_mass	vecflt_type (7.9.4.1.14)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (2105)

7.9.4.1.413 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.4.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.4.1.415)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.4.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.4.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.4.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.4.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.4.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.4.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.4.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).

member	type	description
position	rzphi3D (7.9.4.1.345)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (2105)

7.9.4.1.414 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.4.1.14)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.4.1.14)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.4.1.14)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.4.1.14)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.4.1.14)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.4.1.14)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.4.1.14)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.4.1.12)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.4.1.12)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.4.1.12)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.4.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.4.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.4.1.12)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.4.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.4.1.12)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (2105)

7.9.4.1.415 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.4.1.14)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.4.1.14)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.4.1.14)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.4.1.14)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.4.1.14)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (2457)

7.9.4.1.416 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.4.1.14)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.4.1.14)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.4.1.14)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.4.1.14)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.4.1.14)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.4.1.14)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.4.1.14)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.4.1.12)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.4.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.4.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.4.1.12)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.4.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.4.1.12)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (2105)

7.9.4.1.417 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.4.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.4.1.14)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.4.1.14)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).
en_mag	vecflt_type (7.9.4.1.14)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.4.1.14)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.4.1.12)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.4.1.14)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.4.1.12)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.4.1.14)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.4.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.4.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.4.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.4.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.4.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.4.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.4.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.4.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (2105)

7.9.4.1.418 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.4.1.14)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.4.1.14)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.4.1.14)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.4.1.14)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.4.1.14)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.4.1.14)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.4.1.14)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.4.1.12)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.4.1.12)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.4.1.12)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (2105)

7.9.4.1.419 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.4.1.14)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.4.1.12)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.4.1.12)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.4.1.12)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.4.1.12)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.4.1.12)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.4.1.12)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.4.1.6)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.4.1.6)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).

member	type	description
ui	array3dflt_type (7.9.4.1.6)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (2105)

7.9.4.1.420 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.4.1.6)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.4.1.6)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.4.1.6)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.4.1.6)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (2105)

7.9.4.1.421 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.4.1.8)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.4.1.9)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (2105)

7.9.4.1.422 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.4.1.9)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).
fi	array6dflt_type (7.9.4.1.10)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (2105)

7.9.4.1.423 veccplx_type

Temporary structure for real and imaginary part of complex numbers (vector)

member	type	description
re	vecflt_type (7.9.4.1.14)	Real part
im	vecflt_type (7.9.4.1.14)	Imaginary part

Type of: complexgrid_scalar_cplx:scalar (2137)

7.9.4.1.424 version_ind

Used by shot/run=0/0 to store information about available versions.

member	type	description
description	vecstring_type (7.9.4.1.16)	Description of each version.
releasedate	string (7.9.4.1.4)	Release date
data_release(:)	data_release (7.9.4.1.136)	For this release, an array over each data item (i.e. shot/run pair containing the actual data) included in this release

Type of: amns:version_ind (2064)

7.9.4.1.425 wall2d

2D wall type. Structure array. Replicate this element for each type of possible physics configurations necessary (single contour limiter, disjoints gapped plasma facing components)

member	type	description
wall_id	identifier (7.9.4.1.230)	Use this identifier to tag the type of 2d wall you are using. Use 0 for single contour limiter and 1 for disjoint PFC structure like first wall.
limiter	wall_limiter (7.9.4.1.430)	Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface.
vessel	wall_vessel (7.9.4.1.431)	Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Each vessel layer can be either a simple annular structure of given radial thickness or be made from a set of individual blocks with a given resistivity.

Type of: wall:wall2d (2107)

7.9.4.1.426 wall2d_mhd

Simplified wall that encloses necessary information for RWM codes.

member	type	description
wall_id	identifier (7.9.4.1.230)	NO DOCS
res_wall(:)	mhd_res_wall2d (7.9.4.1.259)	Resistive Wall(s).
ideal_wall	mhd_ideal_wall2d (7.9.4.1.257)	Ideal wall

Type of: wall:wall2d_mhd (2107)

7.9.4.1.427 wall3d

A 3D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas thight vs wall with ports and holes)

member	type	description
wall_id	identifier (7.9.4.1.230)	NO DOCS
grid	complexgrid (7.9.4.1.87)	Grid description

Type of: wall:wall3d (2107)

7.9.4.1.428 wall_blocks

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
blocks_unit(:)	wall_blocks_unit (7.9.4.1.429)	Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

Type of: wall_vessel_unit:blocks (2477)

7.9.4.1.429 wall_blocks_unit

Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

member	type	description
name	string (7.9.4.1.4)	Name or description of the blocks_unit
position	rz1D (7.9.4.1.336)	Position (R,Z coordinates) of a vessel segment. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.4.1.2)	Resistivity of the vessel segment [ohm.m]; Scalar

member	type	description
permeability	float (7.9.4.1.2)	Vessel relative permeability; Scalar

Type of: wall_blocks:blocks_unit (2472)

7.9.4.1.430 wall_limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface.

member	type	description
limiter_unit(:)	limiter_unit (7.9.4.1.247)	Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

Type of: wall2d:limiter (2469)

7.9.4.1.431 wall_vessel

Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Each vessel layer can be either a simple annular structure of given radial thickness or be made from a set of individual blocks with a given resistivity.

member	type	description
vessel_unit(:)	wall_vessel_unit (7.9.4.1.433)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall2d:vessel (2469)

7.9.4.1.432 wall_vessel_annular

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
name	string (7.9.4.1.4)	Name or description of the vessel_unit
inside	rz1D (7.9.4.1.336)	Inner Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
outside	rz1D (7.9.4.1.336)	Outer Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
eta	float (7.9.4.1.2)	Vessel resistivity [ohm.m]; Scalar
permeability	float (7.9.4.1.2)	Vessel relative permeability; Scalar

Type of: wall_vessel_unit:annular (2477)

7.9.4.1.433 wall_vessel_unit

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
annular	wall_vessel_annular (7.9.4.1.432)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)
blocks	wall_blocks (7.9.4.1.428)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall_vessel:vessel_unit (2475)

7.9.4.1.434 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.4.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.4.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.4.1.15)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.4.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.4.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.4.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.4.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.4.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.4.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.4.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.4.1.14)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.4.1.14)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (2306)

7.9.4.1.435 waves_global_param

Global wave deposition parameters

member	type	description
frequency	float (7.9.4.1.2)	Wave frequency [Hz]; Time-dependent, floating
name	string (7.9.4.1.4)	Antenna name, String
type	string (7.9.4.1.4)	Wave type (LH, EC, IC, ...), String
ntor	vecint_type (7.9.4.1.15)	Toroidal mode numbers; Time-dependent; Vector (ntor)
f_assumption	vecint_type (7.9.4.1.15)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
power_tot	float (7.9.4.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.4.1.14)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_i	vecflt_type (7.9.4.1.14)	Wave power absorbed by an ion species [W]; Time-dependent; Vector (nion)
pow_e	float (7.9.4.1.2)	Wave power absorbed by the electrons [W]; Time-dependent; Float
pow_ntor_i	matflt_type (7.9.4.1.12)	Wave power absorbed by an ion species per toroidal mode number [W]; Time-dependent; Matrix (ntor,nion)
pow_ntor_e	vecflt_type (7.9.4.1.14)	Wave power absorbed by the electrons per toroidal mode number [W]; Time-dependent; Vector (ntor)
cur_tor	float (7.9.4.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.4.1.14)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
code_type	integer (7.9.4.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
toroid_field	b0r0 (7.9.4.1.72)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of parallel current densities in this CPO; Float.

Type of: coherentwave:global_param (2128)

7.9.4.1.436 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.4.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.4.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.4.1.14)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (2128)

7.9.4.1.437 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.4.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.4.1.12)	Normalised toroidal flux coordinate at the grid points for the 2D profiles; Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.4.1.12)	Toroidal flux coordinate at the grid points for the 2D profiles [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.4.1.12)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.4.1.12)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.4.1.12)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.4.1.12)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.4.1.402)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (2128)

7.9.4.1.438 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.4.1.14)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.4.1.14)	Flux surface averaged absorbed wave power density on electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.4.1.12)	Flux surface averaged absorbed wave power density on ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_ntor	matflt_type (7.9.4.1.12)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.4.1.12)	Flux surface averaged absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.4.1.6)	Flux surface averaged power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
curd_tor	vecflt_type (7.9.4.1.14)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.4.1.12)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.4.1.14)	Volume integrated absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.4.1.14)	Volume integrated absorbed wave power density on electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.4.1.12)	Volume integrated absorbed wave power density on ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_ntor	array3dflt_type (7.9.4.1.6)	Volume integrated power density for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.4.1.12)	Volume integrated power density for each toroidal mode number on the electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.4.1.6)	Volume integrated power density for each toroidal mode number on each ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
curd_par	vecflt_type (7.9.4.1.14)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.4.1.12)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.4.1.14)	Wave driven toroidal current inside a flux surface from stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.4.1.12)	Wave driven toroidal current inside a flux surface for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (2128)

7.9.4.1.439 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.4.1.12)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.4.1.12)	Absorbed wave power density on electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.4.1.6)	Absorbed wave power density on ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_ntor	array3dflt_type (7.9.4.1.6)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.4.1.6)	Absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.4.1.8)	Absorbed power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_iharm	array5dflt_type (7.9.4.1.9)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (2128)

7.9.4.1.440 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.4.1.14)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.4.1.14)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.4.1.14)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.4.1.14)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.4.1.14)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (2118)

7.9.4.1.441 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.4.1.14)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.4.1.14)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.4.1.14)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent
npar	vecflt_type (7.9.4.1.14)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.4.1.14)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.4.1.14)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.4.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (2118)

7.9.4.1.442 weighted_markers

Array of NMARK weighted markers in NDIM dimensions

member	type	description
variable_ids(:)	identifier (7.9.4.1.230)	Integer identification of the variables stored in the coord matrix. Vector(NDIM)
coord	matflt_type (7.9.4.1.12)	Coordinates of the markers. The coordinates used is specified in variable_ids. Time-dependent; Float(NMARK,NDIM)
weight	vecflt_type (7.9.4.1.14)	Weight of the marker; number of real particles represented by the marker. Time-dependent; Float(NMARK)

Type of: dist_func:markers (2190) I distsource_source:markers (2216)

7.9.4.1.443 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.4.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.4.1.4)	Name of the device
shot	integer (7.9.4.1.3)	Shot number
run	integer (7.9.4.1.3)	Run number
occurrence	integer (7.9.4.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (2181)

7.9.4.1.444 width

Angular width of each in the poloidal and toroidal direction;

member	type	description
dtheta	vecflt_type (7.9.4.1.14)	Angular poloidal width of holes; Vector (n_holes)
phi	vecflt_type (7.9.4.1.14)	Angular toroidal width of holes; Vector (n_holes)

Type of: holes:width (2273)

7.9.4.1.445 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.4.1.336)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.4.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.4.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.4.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.4.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.4.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (2234) itmtypes [561]

7.9.4.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.4.2.1 Fortran

7.9.4.2.2 amns

datainfo (2064)	amns%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	amns%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	amns%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	amns%datainfo%source (string) (7.9.4.1.4)
comment (2181)	amns%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	amns%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	amns%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	amns%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	amns%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	amns%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	amns%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	amns%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	amns%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	amns%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	amns%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	amns%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	amns%datainfo%putinfo%putaccess (string) (7.9.4.1.4)

[561] https://www.efda-itm.eu/ITM/html/itmtypes__4.10a.html

putlocation (2350)	amns%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	amns%datainfo%putinfo%rights (string) (7.9.4.1.4)
version (2064)	amns%version (string) (7.9.4.1.4)
source (2064)	amns%source (string) (7.9.4.1.4)
zn (2064)	amns%zn (integer) (7.9.4.1.3)
amn (2064)	amns%amn (float) (7.9.4.1.2)
zion (2064)	amns%zion (vecint_type) (7.9.4.1.15)
state_label (2064)	amns%state_label (vecstring_type) (7.9.4.1.16)
bundled (2064)	amns%bundled (integer) (7.9.4.1.3)
proc_label (2064)	amns%proc_label (vecstring_type) (7.9.4.1.16)
tables (2064)	amns%tables(:) (tables) (7.9.4.1.398)
ndim (2442)	amns%tables(:)%ndim (integer) (7.9.4.1.3)
coord_index (2442)	amns%tables(:)%coord_index (integer) (7.9.4.1.3)
result_label (2442)	amns%tables(:)%result_label (string) (7.9.4.1.4)
result_unit (2442)	amns%tables(:)%result_unit (string) (7.9.4.1.4)
result_trans (2442)	amns%tables(:)%result_trans (integer) (7.9.4.1.3)
table (2442)	amns%tables(:)%table(:) (table) (7.9.4.1.397)
table_0d (2441)	amns%tables(:)%table(:)%table_0d (float) (7.9.4.1.2)
table_1d (2441)	amns%tables(:)%table(:)%table_1d (vecflt_type) (7.9.4.1.14)
table_2d (2441)	amns%tables(:)%table(:)%table_2d (matflt_type) (7.9.4.1.12)
table_3d (2441)	amns%tables(:)%table(:)%table_3d (array3dflt_type) (7.9.4.1.6)
table_4d (2441)	amns%tables(:)%table(:)%table_4d (array4dflt_type) (7.9.4.1.8)
table_5d (2441)	amns%tables(:)%table(:)%table_5d (array5dflt_type) (7.9.4.1.9)
table_6d (2441)	amns%tables(:)%table(:)%table_6d (array6dflt_type) (7.9.4.1.10)
data_source (2442)	amns%tables(:)%data_source (string) (7.9.4.1.4)
data_provide (2442)	amns%tables(:)%data_provide (string) (7.9.4.1.4)
data_citation (2442)	amns%tables(:)%data_citation (string) (7.9.4.1.4)
tables_coord (2064)	amns%tables_coord(:) (tables_coord) (7.9.4.1.399)
coords (2443)	amns%tables_coord(:)%coords(:) (coords) (7.9.4.1.108)
coord (2152)	amns%tables_coord(:)%coords(:)%coord (vecflt_type) (7.9.4.1.14)
coord_label (2152)	amns%tables_coord(:)%coords(:)%coord_label (vecstring_type) (7.9.4.1.16)
extrap_type (2152)	amns%tables_coord(:)%coords(:)%extrap_type (vecint_type) (7.9.4.1.15)
interp_type (2152)	amns%tables_coord(:)%coords(:)%interp_type (integer) (7.9.4.1.3)
label (2152)	amns%tables_coord(:)%coords(:)%label (string) (7.9.4.1.4)
unit (2152)	amns%tables_coord(:)%coords(:)%unit (string) (7.9.4.1.4)
transform (2152)	amns%tables_coord(:)%coords(:)%transform (integer) (7.9.4.1.3)
spacing (2152)	amns%tables_coord(:)%coords(:)%spacing (integer) (7.9.4.1.3)
version_ind (2064)	amns%version_ind(:) (version_ind) (7.9.4.1.424)
description (2468)	amns%version_ind(:)%description (vecstring_type) (7.9.4.1.16)
releasedate (2468)	amns%version_ind(:)%releasedate (string) (7.9.4.1.4)
data_release (2468)	amns%version_ind(:)%data_release(:) (data_release) (7.9.4.1.136)
shot (2180)	amns%version_ind(:)%data_release(:)%shot (integer) (7.9.4.1.3)
run (2180)	amns%version_ind(:)%data_release(:)%run (integer) (7.9.4.1.3)
description (2180)	amns%version_ind(:)%data_release(:)%description (vecstring_type) (7.9.4.1.16)

7.9.4.2.3 antennas

datainfo (2065)	antennas%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	antennas%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	antennas%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	antennas%datainfo%source (string) (7.9.4.1.4)
comment (2181)	antennas%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	antennas%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	antennas%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	antennas%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	antennas%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	antennas%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	antennas%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	antennas%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	antennas%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	antennas%datainfo%whatref%occurrence (integer) (7.9.4.1.3)

putinfo (2181)	antennas%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	antennas%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	antennas%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	antennas%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	antennas%datainfo%putinfo%rights (string) (7.9.4.1.4)
antenna_ec (2065)	antennas%antenna_ec(:) (antenna_ec) (7.9.4.1.66)
name (2110)	antennas%antenna_ec(:)%name (string) (7.9.4.1.4)
frequency (2110)	antennas%antenna_ec(:)%frequency (float) (7.9.4.1.2)
power (2110)	antennas%antenna_ec(:)%power (exp0D) (7.9.4.1.196)
value (2240)	antennas%antenna_ec(:)%power%value (float) (7.9.4.1.2)
abserror (2240)	antennas%antenna_ec(:)%power%abserror (float) (7.9.4.1.2)
relerror (2240)	antennas%antenna_ec(:)%power%relerror (float) (7.9.4.1.2)
mode (2110)	antennas%antenna_ec(:)%mode (integer) (7.9.4.1.3)
position (2110)	antennas%antenna_ec(:)%position (rzphi0D) (7.9.4.1.341)
r (2385)	antennas%antenna_ec(:)%position%r (float) (7.9.4.1.2)
z (2385)	antennas%antenna_ec(:)%position%z (float) (7.9.4.1.2)
phi (2385)	antennas%antenna_ec(:)%position%phi (float) (7.9.4.1.2)
launchangles (2110)	antennas%antenna_ec(:)%launchangles (launchangles) (7.9.4.1.240)
alpha (2284)	antennas%antenna_ec(:)%launchangles%alpha (float) (7.9.4.1.2)
beta (2284)	antennas%antenna_ec(:)%launchangles%beta (float) (7.9.4.1.2)
beam (2110)	antennas%antenna_ec(:)%beam (rfbeam) (7.9.4.1.334)
spot (2378)	antennas%antenna_ec(:)%beam%spot (spot) (7.9.4.1.390)
size (2434)	antennas%antenna_ec(:)%beam%spot%size (vecflt_type) (7.9.4.1.14)
angle (2434)	antennas%antenna_ec(:)%beam%spot%angle (float) (7.9.4.1.2)
phaseellipse (2378)	antennas%antenna_ec(:)%beam%phaseellipse (phaseellipse) (7.9.4.1.295)
invcurvrad (2339)	antennas%antenna_ec(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.4.1.14)
angle (2339)	antennas%antenna_ec(:)%beam%phaseellipse%angle (float) (7.9.4.1.2)
codeparam (2110)	antennas%antenna_ec(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	antennas%antenna_ec(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	antennas%antenna_ec(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	antennas%antenna_ec(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	antennas%antenna_ec(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	antennas%antenna_ec(:)%codeparam%output_flag (integer) (7.9.4.1.3)
antenna_ic (2065)	antennas%antenna_ic(:) (antenna_ic) (7.9.4.1.67)
name (2111)	antennas%antenna_ic(:)%name (string) (7.9.4.1.4)
frequency (2111)	antennas%antenna_ic(:)%frequency (exp0D) (7.9.4.1.196)
value (2240)	antennas%antenna_ic(:)%frequency%value (float) (7.9.4.1.2)
abserror (2240)	antennas%antenna_ic(:)%frequency%abserror (float) (7.9.4.1.2)
relerror (2240)	antennas%antenna_ic(:)%frequency%relerror (float) (7.9.4.1.2)
power (2111)	antennas%antenna_ic(:)%power (exp0D) (7.9.4.1.196)
value (2240)	antennas%antenna_ic(:)%power%value (float) (7.9.4.1.2)
abserror (2240)	antennas%antenna_ic(:)%power%abserror (float) (7.9.4.1.2)
relerror (2240)	antennas%antenna_ic(:)%power%relerror (float) (7.9.4.1.2)
setup (2111)	antennas%antenna_ic(:)%setup (antennaic_setup) (7.9.4.1.69)
straps (2113)	antennas%antenna_ic(:)%setup%straps(:) (straps) (7.9.4.1.395)
phase (2439)	antennas%antenna_ic(:)%setup%straps(:)%phase (exp0D) (7.9.4.1.196)
value (2240)	antennas%antenna_ic(:)%setup%straps(:)%phase%value (float) (7.9.4.1.2)
abserror (2240)	antennas%antenna_ic(:)%setup%straps(:)%phase%abserror (float) (7.9.4.1.2)
relerror (2240)	antennas%antenna_ic(:)%setup%straps(:)%phase%relerror (float) (7.9.4.1.2)
phi_centre (2439)	antennas%antenna_ic(:)%setup%straps(:)%phi_centre (float) (7.9.4.1.2)
width (2439)	antennas%antenna_ic(:)%setup%straps(:)%width (float) (7.9.4.1.2)
dist2wall (2439)	antennas%antenna_ic(:)%setup%straps(:)%dist2wall (float) (7.9.4.1.2)
coord_strap (2439)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap (rz1D) (7.9.4.1.336)
r (2380)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%r (vecflt_type) (7.9.4.1.14)
z (2380)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%z (vecflt_type) (7.9.4.1.14)
codeparam (2111)	antennas%antenna_ic(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	antennas%antenna_ic(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	antennas%antenna_ic(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	antennas%antenna_ic(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	antennas%antenna_ic(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	antennas%antenna_ic(:)%codeparam%output_flag (integer) (7.9.4.1.3)

antenna_lh (2065)	antennas%antenna_lh(:) (antenna_lh) (7.9.4.1.68)
name (2112)	antennas%antenna_lh(:)%name (string) (7.9.4.1.4)
frequency (2112)	antennas%antenna_lh(:)%frequency (float) (7.9.4.1.2)
power (2112)	antennas%antenna_lh(:)%power (exp0D) (7.9.4.1.196)
value (2240)	antennas%antenna_lh(:)%power%value (float) (7.9.4.1.2)
abserror (2240)	antennas%antenna_lh(:)%power%abserror (float) (7.9.4.1.2)
relerror (2240)	antennas%antenna_lh(:)%power%relerror (float) (7.9.4.1.2)
n_par (2112)	antennas%antenna_lh(:)%n_par (float) (7.9.4.1.2)
position (2112)	antennas%antenna_lh(:)%position (rzphi0D) (7.9.4.1.341)
r (2385)	antennas%antenna_lh(:)%position%r (float) (7.9.4.1.2)
z (2385)	antennas%antenna_lh(:)%position%z (float) (7.9.4.1.2)
phi (2385)	antennas%antenna_lh(:)%position%phi (float) (7.9.4.1.2)
setup (2112)	antennas%antenna_lh(:)%setup (antennalh_setup) (7.9.4.1.70)
modules (2114)	antennas%antenna_lh(:)%setup%modules (modules) (7.9.4.1.262)
nma_theta (2306)	antennas%antenna_lh(:)%setup%modules%nma_theta (integer) (7.9.4.1.3)
nma_phi (2306)	antennas%antenna_lh(:)%setup%modules%nma_phi (integer) (7.9.4.1.3)
ima_theta (2306)	antennas%antenna_lh(:)%setup%modules%ima_theta (vecint_type) (7.9.4.1.15)
ima_phi (2306)	antennas%antenna_lh(:)%setup%modules%ima_phi (vecint_type) (7.9.4.1.15)
sm_theta (2306)	antennas%antenna_lh(:)%setup%modules%sm_theta (float) (7.9.4.1.2)
amplitude (2306)	antennas%antenna_lh(:)%setup%modules%amplitude (exp1D) (7.9.4.1.197)
value (2241)	antennas%antenna_lh(:)%setup%modules%amplitude%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	antennas%antenna_lh(:)%setup%modules%amplitude%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	antennas%antenna_lh(:)%setup%modules%amplitude%relerror (vecflt_type) (7.9.4.1.14)
phase (2306)	antennas%antenna_lh(:)%setup%modules%phase (exp1D) (7.9.4.1.197)
value (2241)	antennas%antenna_lh(:)%setup%modules%phase%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	antennas%antenna_lh(:)%setup%modules%phase%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	antennas%antenna_lh(:)%setup%modules%phase%relerror (vecflt_type) (7.9.4.1.14)
waveguides (2306)	antennas%antenna_lh(:)%setup%modules%waveguides (waveguides) (7.9.4.1.434)
nwm_theta (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_theta (integer) (7.9.4.1.3)
nwm_phi (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_phi (integer) (7.9.4.1.3)
mask (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%mask (vecint_type) (7.9.4.1.15)
npwbm_phi (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%npwbm_phi (integer) (7.9.4.1.3)
npwe_phi (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%npwe_phi (integer) (7.9.4.1.3)
sw_theta (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%sw_theta (float) (7.9.4.1.2)
hw_theta (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%hw_theta (float) (7.9.4.1.2)
bwa (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%bwa (float) (7.9.4.1.2)
biwp (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%biwp (float) (7.9.4.1.2)
bewp (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%bewp (float) (7.9.4.1.2)
e_phi (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%e_phi (vecflt_type) (7.9.4.1.14)
scl (2478)	antennas%antenna_lh(:)%setup%modules%waveguides%scl (vecflt_type) (7.9.4.1.14)
plasmaedge (2112)	antennas%antenna_lh(:)%plasmaedge (plasmaedge) (7.9.4.1.298)
npoints (2342)	antennas%antenna_lh(:)%plasmaedge%npoints (integer) (7.9.4.1.3)
distance (2342)	antennas%antenna_lh(:)%plasmaedge%distance (vecflt_type) (7.9.4.1.14)
density (2342)	antennas%antenna_lh(:)%plasmaedge%density (vecflt_type) (7.9.4.1.14)
beam (2112)	antennas%antenna_lh(:)%beam (rfbeam) (7.9.4.1.334)
spot (2378)	antennas%antenna_lh(:)%beam%spot (spot) (7.9.4.1.390)
size (2434)	antennas%antenna_lh(:)%beam%spot%size (vecflt_type) (7.9.4.1.14)
angle (2434)	antennas%antenna_lh(:)%beam%spot%angle (float) (7.9.4.1.2)
phaseellipse (2378)	antennas%antenna_lh(:)%beam%phaseellipse (phaseellipse) (7.9.4.1.295)
invcurvrad (2339)	antennas%antenna_lh(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.4.1.14)
angle (2339)	antennas%antenna_lh(:)%beam%phaseellipse%angle (float) (7.9.4.1.2)
codeparam (2112)	antennas%antenna_lh(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	antennas%antenna_lh(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	antennas%antenna_lh(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	antennas%antenna_lh(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	antennas%antenna_lh(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	antennas%antenna_lh(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2065)	antennas%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	antennas%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	antennas%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	antennas%codeparam%parameters (string) (7.9.4.1.4)

output_diag (2126)	antennas%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	antennas%codeparam%output_flag (integer) (7.9.4.1.3)
time (2065)	antennas%time (float) (7.9.4.1.2)

7.9.4.2.4 compositionc

datainfo (2066)	compositionc%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	compositionc%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	compositionc%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	compositionc%datainfo%source (string) (7.9.4.1.4)
comment (2181)	compositionc%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	compositionc%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	compositionc%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	compositionc%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	compositionc%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	compositionc%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	compositionc%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	compositionc%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	compositionc%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	compositionc%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	compositionc%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	compositionc%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	compositionc%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	compositionc%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	compositionc%datainfo%putinfo%rights (string) (7.9.4.1.4)
compositions (2066)	compositionc%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	compositionc%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	compositionc%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	compositionc%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	compositionc%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	compositionc%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	compositionc%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	compositionc%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	compositionc%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	compositionc%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	compositionc%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	compositionc%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	compositionc%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	compositionc%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	compositionc%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	compositionc%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	compositionc%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	compositionc%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	compositionc%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	compositionc%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	compositionc%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	compositionc%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	compositionc%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	compositionc%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	compositionc%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	compositionc%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	compositionc%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	compositionc%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	compositionc%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	compositionc%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	compositionc%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	compositionc%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	compositionc%compositions%signature%description (string) (7.9.4.1.4)

7.9.4.2.5 coredelta

datainfo (2067)	coredelta%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coredelta%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	coredelta%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coredelta%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coredelta%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	coredelta%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coredelta%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	coredelta%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coredelta%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coredelta%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coredelta%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coredelta%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coredelta%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coredelta%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coredelta%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coredelta%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coredelta%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coredelta%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coredelta%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2067)	coredelta%composition (composition) (7.9.4.1.100)
amn (2144)	coredelta%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	coredelta%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	coredelta%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	coredelta%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	coredelta%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2067)	coredelta%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coredelta%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coredelta%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coredelta%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coredelta%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coredelta%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coredelta%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coredelta%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2067)	coredelta%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coredelta%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coredelta%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coredelta%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coredelta%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coredelta%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coredelta%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coredelta%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coredelta%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coredelta%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coredelta%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coredelta%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coredelta%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coredelta%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coredelta%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coredelta%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coredelta%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coredelta%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coredelta%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coredelta%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coredelta%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coredelta%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coredelta%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coredelta%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)

edgespecies (2148)	coredelta%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coredelta%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coredelta%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coredelta%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coredelta%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coredelta%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coredelta%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	coredelta%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coredelta%compositions%signature%description (string) (7.9.4.1.4)
values (2067)	coredelta%values(:) (coredelta_values) (7.9.4.1.109)
deltaid (2153)	coredelta%values(:)%deltaid (identifier) (7.9.4.1.230)
id (2274)	coredelta%values(:)%deltaid%id (string) (7.9.4.1.4)
flag (2274)	coredelta%values(:)%deltaid%flag (integer) (7.9.4.1.3)
description (2274)	coredelta%values(:)%deltaid%description (string) (7.9.4.1.4)
rho_tor (2153)	coredelta%values(:)%rho_tor (vecflt_type) (7.9.4.1.14)
rho_tor_norm (2153)	coredelta%values(:)%rho_tor_norm (vecflt_type) (7.9.4.1.14)
delta_psi (2153)	coredelta%values(:)%delta_psi (vecflt_type) (7.9.4.1.14)
delta_te (2153)	coredelta%values(:)%delta_te (vecflt_type) (7.9.4.1.14)
delta_ti (2153)	coredelta%values(:)%delta_ti (matflt_type) (7.9.4.1.12)
delta_tz (2153)	coredelta%values(:)%delta_tz (array3dflt_type) (7.9.4.1.6)
delta_ne (2153)	coredelta%values(:)%delta_ne (vecflt_type) (7.9.4.1.14)
delta_ni (2153)	coredelta%values(:)%delta_ni (matflt_type) (7.9.4.1.12)
delta_nz (2153)	coredelta%values(:)%delta_nz (array3dflt_type) (7.9.4.1.6)
delta_vtor (2153)	coredelta%values(:)%delta_vtor (matflt_type) (7.9.4.1.12)
codeparam (2153)	coredelta%values(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coredelta%values(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coredelta%values(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coredelta%values(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coredelta%values(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coredelta%values(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2067)	coredelta%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coredelta%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coredelta%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coredelta%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coredelta%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coredelta%codeparam%output_flag (integer) (7.9.4.1.3)
time (2067)	coredelta%time (float) (7.9.4.1.2)

7.9.4.2.6 coreimpur

datainfo (2068)	coreimpur%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coreimpur%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	coreimpur%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coreimpur%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coreimpur%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	coreimpur%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coreimpur%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	coreimpur%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coreimpur%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coreimpur%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coreimpur%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coreimpur%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coreimpur%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coreimpur%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coreimpur%datainfo%putinfo%rights (string) (7.9.4.1.4)
rho_tor_norm (2068)	coreimpur%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2068)	coreimpur%rho_tor (vecflt_type) (7.9.4.1.14)

source (2068)	coreimpur%source (vecstring_type) (7.9.4.1.16)
flag (2068)	coreimpur%flag (vecint_type) (7.9.4.1.15)
desc_impur (2068)	coreimpur%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coreimpur%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coreimpur%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coreimpur%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coreimpur%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coreimpur%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2068)	coreimpur%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coreimpur%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coreimpur%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coreimpur%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coreimpur%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coreimpur%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coreimpur%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coreimpur%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coreimpur%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coreimpur%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coreimpur%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coreimpur%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coreimpur%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coreimpur%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coreimpur%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coreimpur%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coreimpur%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coreimpur%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coreimpur%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coreimpur%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coreimpur%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coreimpur%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coreimpur%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coreimpur%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	coreimpur%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coreimpur%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coreimpur%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coreimpur%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coreimpur%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coreimpur%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coreimpur%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	coreimpur%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coreimpur%compositions%signature%description (string) (7.9.4.1.4)
atomic_data (2068)	coreimpur%atomic_data (vecstring_type) (7.9.4.1.16)
impurity (2068)	coreimpur%impurity(:) (impurity_type) (7.9.4.1.233)
z (2277)	coreimpur%impurity(:)%z (matflt_type) (7.9.4.1.12)
zsq (2277)	coreimpur%impurity(:)%zsq (matflt_type) (7.9.4.1.12)
nz (2277)	coreimpur%impurity(:)%nz (matflt_type) (7.9.4.1.12)
source_term (2277)	coreimpur%impurity(:)%source_term (sourceimp) (7.9.4.1.384)
value (2428)	coreimpur%impurity(:)%source_term%value (matflt_type) (7.9.4.1.12)
integral (2428)	coreimpur%impurity(:)%source_term%integral (matflt_type) (7.9.4.1.12)
source (2428)	coreimpur%impurity(:)%source_term%source (vecstring_type) (7.9.4.1.16)
boundary (2277)	coreimpur%impurity(:)%boundary (boundaryimp) (7.9.4.1.78)
value (2122)	coreimpur%impurity(:)%boundary%value (matflt_type) (7.9.4.1.12)
source (2122)	coreimpur%impurity(:)%boundary%source (string) (7.9.4.1.4)
type (2122)	coreimpur%impurity(:)%boundary%type (vecint_type) (7.9.4.1.15)
rho (2122)	coreimpur%impurity(:)%boundary%rho (vecflt_type) (7.9.4.1.14)
codeparam (2122)	coreimpur%impurity(:)%boundary%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreimpur%impurity(:)%boundary%codeparam%codename (string) (7.9.4.1.4)

codeversion (2126)	coreimpur%impurity(:)%boundary%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreimpur%impurity(:)%boundary%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreimpur%impurity(:)%boundary%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreimpur%impurity(:)%boundary%codeparam%output_flag (integer) (7.9.4.1.3)
transp_coef (2277)	coreimpur%impurity(:)%transp_coef (coretransimp) (7.9.4.1.130)
diff (2174)	coreimpur%impurity(:)%transp_coef%diff (matflt_type) (7.9.4.1.12)
vconv (2174)	coreimpur%impurity(:)%transp_coef%vconv (matflt_type) (7.9.4.1.12)
source (2174)	coreimpur%impurity(:)%transp_coef%source (vecstring_type) (7.9.4.1.16)
flux (2277)	coreimpur%impurity(:)%flux (fluximp) (7.9.4.1.204)
flux_dv (2248)	coreimpur%impurity(:)%flux%flux_dv (matflt_type) (7.9.4.1.12)
flux_interp (2248)	coreimpur%impurity(:)%flux%flux_interp (matflt_type) (7.9.4.1.12)
time_deriv (2277)	coreimpur%impurity(:)%time_deriv (matflt_type) (7.9.4.1.12)
diagnostic (2277)	coreimpur%impurity(:)%diagnostic (coreimpurediag_type) (7.9.4.1.121)
radiation (2165)	coreimpur%impurity(:)%diagnostic%radiation (coreimpurediag_radiation) (7.9.4.1.118)
line_rad (2162)	coreimpur%impurity(:)%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.4.1.12)
brem_radrec (2162)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.4.1.12)
sum (2162)	coreimpur%impurity(:)%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%radiation%sum%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%radiation%sum%integral (matflt_type) (7.9.4.1.12)
energy (2165)	coreimpur%impurity(:)%diagnostic%energy (coreimpurediag_energy) (7.9.4.1.117)
ionization (2161)	coreimpur%impurity(:)%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%energy%ionization%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%energy%ionization%integral (matflt_type) (7.9.4.1.12)
recombin (2161)	coreimpur%impurity(:)%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%energy%recombin%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%energy%recombin%integral (matflt_type) (7.9.4.1.12)
sum (2161)	coreimpur%impurity(:)%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%impurity(:)%diagnostic%energy%sum%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%impurity(:)%diagnostic%energy%sum%integral (matflt_type) (7.9.4.1.12)
diagnostic (2068)	coreimpur%diagnostic (coreimpurediag_type) (7.9.4.1.121)
radiation (2165)	coreimpur%diagnostic%radiation (coreimpurediag_radiation) (7.9.4.1.118)
line_rad (2162)	coreimpur%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.4.1.12)
brem_radrec (2162)	coreimpur%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.4.1.12)
sum (2162)	coreimpur%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%radiation%sum%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%radiation%sum%integral (matflt_type) (7.9.4.1.12)
energy (2165)	coreimpur%diagnostic%energy (coreimpurediag_energy) (7.9.4.1.117)
ionization (2161)	coreimpur%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%energy%ionization%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%energy%ionization%integral (matflt_type) (7.9.4.1.12)
recombin (2161)	coreimpur%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%energy%recombin%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%energy%recombin%integral (matflt_type) (7.9.4.1.12)
sum (2161)	coreimpur%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.4.1.122)
profile (2166)	coreimpur%diagnostic%energy%sum%profile (matflt_type) (7.9.4.1.12)
integral (2166)	coreimpur%diagnostic%energy%sum%integral (matflt_type) (7.9.4.1.12)
diagnosticsum (2068)	coreimpur%diagnosticsum (coreimpurediag_sum) (7.9.4.1.119)
radiation (2163)	coreimpur%diagnosticsum%radiation (coreimpurdiag_sum_radiation) (7.9.4.1.116)
line_rad (2160)	coreimpur%diagnosticsum%radiation%line_rad (coreimpurediagsum_type) (7.9.4.1.123)

profile (2167)	coreimpur%diagnosticsum%radiation%line_rad%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%radiation%line_rad%integral (vecflt_type) (7.9.4.1.14)
brem_radrec (2160)	coreimpur%diagnosticsum%radiation%brem_radrec (coreimpurediagsum_type) (7.9.4.1.123)
profile (2167)	coreimpur%diagnosticsum%radiation%brem_radrec%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%radiation%brem_radrec%integral (vecflt_type) (7.9.4.1.14)
sum (2160)	coreimpur%diagnosticsum%radiation%sum (coreimpurediagsum_type) (7.9.4.1.123)
profile (2167)	coreimpur%diagnosticsum%radiation%sum%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%radiation%sum%integral (vecflt_type) (7.9.4.1.14)
energy (2163)	coreimpur%diagnosticsum%energy (coreimpurediag_sum_energy) (7.9.4.1.120)
ionization (2164)	coreimpur%diagnosticsum%energy%ionization (coreimpurediagsum_type) (7.9.4.1.123)
profile (2167)	coreimpur%diagnosticsum%energy%ionization%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%energy%ionization%integral (vecflt_type) (7.9.4.1.14)
recombin (2164)	coreimpur%diagnosticsum%energy%recombin (coreimpurediagsum_type) (7.9.4.1.123)
profile (2167)	coreimpur%diagnosticsum%energy%recombin%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%energy%recombin%integral (vecflt_type) (7.9.4.1.14)
sum (2164)	coreimpur%diagnosticsum%energy%sum (coreimpurediagsum_type) (7.9.4.1.123)
profile (2167)	coreimpur%diagnosticsum%energy%sum%profile (vecflt_type) (7.9.4.1.14)
integral (2167)	coreimpur%diagnosticsum%energy%sum%integral (vecflt_type) (7.9.4.1.14)
codeparam (2068)	coreimpur%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreimpur%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreimpur%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreimpur%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreimpur%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreimpur%codeparam%output_flag (integer) (7.9.4.1.3)
time (2068)	coreimpur%time (float) (7.9.4.1.2)

7.9.4.2.7 coreneutrals

datainfo (2069)	coreneutrals%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coreneutrals%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	coreneutrals%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coreneutrals%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coreneutrals%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	coreneutrals%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coreneutrals%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	coreneutrals%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coreneutrals%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coreneutrals%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coreneutrals%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coreneutrals%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coreneutrals%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coreneutrals%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coreneutrals%datainfo%putinfo%rights (string) (7.9.4.1.4)
rho_tor (2069)	coreneutrals%rho_tor (vecflt_type) (7.9.4.1.14)
rho_tor_norm (2069)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.4.1.14)
neutcompo (2069)	coreneutrals%neutcompo (composition_neutrals) (7.9.4.1.101)
atomlist (2145)	coreneutrals%neutcompo%atomlist(:) (coreneutrals_atomlist) (7.9.4.1.124)
amn (2168)	coreneutrals%neutcompo%atomlist(:)%amn (float) (7.9.4.1.2)
zn (2168)	coreneutrals%neutcompo%atomlist(:)%zn (float) (7.9.4.1.2)
ionimptype (2168)	coreneutrals%neutcompo%atomlist(:)%ionimptype (identifier) (7.9.4.1.230)
id (2274)	coreneutrals%neutcompo%atomlist(:)%ionimptype%id (string) (7.9.4.1.4)
flag (2274)	coreneutrals%neutcompo%atomlist(:)%ionimptype%flag (integer) (7.9.4.1.3)
description (2274)	coreneutrals%neutcompo%atomlist(:)%ionimptype%description (string) (7.9.4.1.4)
ionimpindex (2168)	coreneutrals%neutcompo%atomlist(:)%ionimpindex (integer) (7.9.4.1.3)
neutral (2145)	coreneutrals%neutcompo%neutral(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coreneutrals%neutcompo%neutral(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)

multiplicity (2146)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coreneutrals%neutcompo%neutral(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coreneutrals%neutcompo%neutral(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coreneutrals%neutcompo%neutral(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coreneutrals%neutcompo%neutral(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coreneutrals%neutcompo%neutral(:)%label (string) (7.9.4.1.4)
composition (2069)	coreneutrals%composition (composition) (7.9.4.1.100)
amn (2144)	coreneutrals%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	coreneutrals%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	coreneutrals%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	coreneutrals%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	coreneutrals%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2069)	coreneutrals%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coreneutrals%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coreneutrals%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coreneutrals%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coreneutrals%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coreneutrals%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coreneutrals%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coreneutrals%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2069)	coreneutrals%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coreneutrals%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coreneutrals%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coreneutrals%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coreneutrals%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coreneutrals%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coreneutrals%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coreneutrals%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coreneutrals%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coreneutrals%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coreneutrals%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coreneutrals%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coreneutrals%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coreneutrals%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coreneutrals%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coreneutrals%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coreneutrals%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coreneutrals%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coreneutrals%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coreneutrals%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coreneutrals%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coreneutrals%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coreneutrals%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	coreneutrals%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coreneutrals%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coreneutrals%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coreneutrals%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coreneutrals%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coreneutrals%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coreneutrals%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	coreneutrals%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coreneutrals%compositions%signature%description (string) (7.9.4.1.4)
profiles (2069)	coreneutrals%profiles(:) (neutral_complex_type) (7.9.4.1.273)
neutraltype (2317)	coreneutrals%profiles(:)%neutraltype(:) (coreneutrals_neutraltype) (7.9.4.1.125)
n0 (2169)	coreneutrals%profiles(:)%neutraltype(:)%n0 (corefieldneutral) (7.9.4.1.112)
value (2156)	coreneutrals%profiles(:)%neutraltype(:)%n0%value (vecflt_type) (7.9.4.1.14)
flux (2156)	coreneutrals%profiles(:)%neutraltype(:)%n0%flux (vecflt_type) (7.9.4.1.14)
boundary (2156)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary (boundary_neutrals) (7.9.4.1.76)

value (2120)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%value (vecflt_type) (7.9.4.1.14)
type (2120)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%type (integer) (7.9.4.1.3)
rho_tor (2120)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%rho_tor (float) (7.9.4.1.2)
t0 (2169)	coreneutrals%profiles(:)%neutraltype(:)%t0 (corefieldneutrale) (7.9.4.1.113)
value (2157)	coreneutrals%profiles(:)%neutraltype(:)%t0%value (vecflt_type) (7.9.4.1.14)
flux (2157)	coreneutrals%profiles(:)%neutraltype(:)%t0%flux (vecflt_type) (7.9.4.1.14)
boundary (2157)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary (boundary_neutrals) (7.9.4.1.76)
value (2120)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%value (vecflt_type) (7.9.4.1.14)
type (2120)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%type (integer) (7.9.4.1.3)
rho_tor (2120)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%rho_tor (float) (7.9.4.1.2)
v0 (2169)	coreneutrals%profiles(:)%neutraltype(:)%v0 (corefieldneutralv0) (7.9.4.1.115)
toroidal (2159)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal (corefieldneutralv) (7.9.4.1.114)
value (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%value (vecflt_type) (7.9.4.1.14)
boundary (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary (boundary_neutrals) (7.9.4.1.76)
value (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%value (vecflt_type) (7.9.4.1.14)
type (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%type (integer) (7.9.4.1.3)
rho_tor (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%rho_tor (float) (7.9.4.1.2)
poloidal (2159)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal (corefieldneutralv) (7.9.4.1.114)
value (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%value (vecflt_type) (7.9.4.1.14)
boundary (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary (boundary_neutrals) (7.9.4.1.76)
value (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%value (vecflt_type) (7.9.4.1.14)
type (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%type (integer) (7.9.4.1.3)
rho_tor (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%rho_tor (float) (7.9.4.1.2)
radial (2159)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial (corefieldneutralv) (7.9.4.1.114)
value (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%value (vecflt_type) (7.9.4.1.14)
boundary (2158)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary (boundary_neutrals) (7.9.4.1.76)
value (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%value (vecflt_type) (7.9.4.1.14)
type (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%type (integer) (7.9.4.1.3)
rho_tor (2120)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%rho_tor (float) (7.9.4.1.2)
prad0 (2317)	coreneutrals%profiles(:)%prad0 (vecflt_type) (7.9.4.1.14)
ioncoeff (2069)	coreneutrals%ioncoeff(:) (coefficients_neutrals) (7.9.4.1.83)
recycling (2127)	coreneutrals%ioncoeff(:)%recycling (recycling_neutrals) (7.9.4.1.308)
particles (2352)	coreneutrals%ioncoeff(:)%recycling%particles (vecflt_type) (7.9.4.1.14)
energy (2352)	coreneutrals%ioncoeff(:)%recycling%energy (vecflt_type) (7.9.4.1.14)
sputtering (2127)	coreneutrals%ioncoeff(:)%sputtering (sputtering_neutrals) (7.9.4.1.391)
physical (2435)	coreneutrals%ioncoeff(:)%sputtering%physical (vecflt_type) (7.9.4.1.14)
chemical (2435)	coreneutrals%ioncoeff(:)%sputtering%chemical (vecflt_type) (7.9.4.1.14)
impcoeff (2069)	coreneutrals%impcoeff(:) (impcoeff) (7.9.4.1.231)
chargestate (2275)	coreneutrals%impcoeff(:)%chargestate(:) (coefficients_neutrals) (7.9.4.1.83)
recycling (2127)	coreneutrals%impcoeff(:)%chargestate(:)%recycling (recycling_neutrals) (7.9.4.1.308)
particles (2352)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%particles (vecflt_type) (7.9.4.1.14)
energy (2352)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%energy (vecflt_type) (7.9.4.1.14)
sputtering (2127)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering (sputtering_neutrals) (7.9.4.1.391)
physical (2435)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%physical (vecflt_type) (7.9.4.1.14)
chemical (2435)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%chemical (vecflt_type) (7.9.4.1.14)
codeparam (2069)	coreneutrals%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreneutrals%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreneutrals%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreneutrals%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreneutrals%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreneutrals%codeparam%output_flag (integer) (7.9.4.1.3)
time (2069)	coreneutrals%time (float) (7.9.4.1.2)

7.9.4.2.8 coreprof

datainfo (2070)	coreprof%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coreprof%datainfo%dataprovider (string) (7.9.4.1.4)

putdate (2181)	coreprof%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coreprof%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coreprof%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	coreprof%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coreprof%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	coreprof%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coreprof%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coreprof%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coreprof%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coreprof%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coreprof%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coreprof%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coreprof%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coreprof%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coreprof%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coreprof%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coreprof%datainfo%putinfo%rights (string) (7.9.4.1.4)
rho_tor_norm (2070)	coreprof%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2070)	coreprof%rho_tor (vecflt_type) (7.9.4.1.14)
drho_dt (2070)	coreprof%drho_dt (vecflt_type) (7.9.4.1.14)
toroid_field (2070)	coreprof%toroid_field (toroid_field) (7.9.4.1.404)
b0 (2448)	coreprof%toroid_field%b0 (float) (7.9.4.1.2)
b0prime (2448)	coreprof%toroid_field%b0prime (float) (7.9.4.1.2)
r0 (2448)	coreprof%toroid_field%r0 (float) (7.9.4.1.2)
time (2448)	coreprof%toroid_field%time (float) (7.9.4.1.2)
composition (2070)	coreprof%composition (composition) (7.9.4.1.100)
amn (2144)	coreprof%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	coreprof%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	coreprof%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	coreprof%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	coreprof%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2070)	coreprof%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coreprof%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coreprof%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coreprof%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coreprof%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coreprof%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coreprof%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coreprof%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2070)	coreprof%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coreprof%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coreprof%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coreprof%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coreprof%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coreprof%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coreprof%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coreprof%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coreprof%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coreprof%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coreprof%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coreprof%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coreprof%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coreprof%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coreprof%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coreprof%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coreprof%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coreprof%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coreprof%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coreprof%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)

id (2274)	coreprof%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coreprof%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coreprof%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coreprof%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	coreprof%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coreprof%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coreprof%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coreprof%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coreprof%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coreprof%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coreprof%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	coreprof%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coreprof%compositions%signature%description (string) (7.9.4.1.4)
psi (2070)	coreprof%psi (psi) (7.9.4.1.305)
value (2349)	coreprof%psi%value (vecflt_type) (7.9.4.1.14)
ddrho (2349)	coreprof%psi%ddrho (vecflt_type) (7.9.4.1.14)
d2drho2 (2349)	coreprof%psi%d2drho2 (vecflt_type) (7.9.4.1.14)
ddt_rhotorn (2349)	coreprof%psi%ddt_rhotorn (vecflt_type) (7.9.4.1.14)
ddt_phi (2349)	coreprof%psi%ddt_phi (vecflt_type) (7.9.4.1.14)
source (2349)	coreprof%psi%source (string) (7.9.4.1.4)
flag (2349)	coreprof%psi%flag (integer) (7.9.4.1.3)
boundary (2349)	coreprof%psi%boundary (boundary) (7.9.4.1.75)
value (2119)	coreprof%psi%boundary%value (vecflt_type) (7.9.4.1.14)
source (2119)	coreprof%psi%boundary%source (string) (7.9.4.1.4)
type (2119)	coreprof%psi%boundary%type (integer) (7.9.4.1.3)
rho (2119)	coreprof%psi%boundary%rho (float) (7.9.4.1.2)
codeparam (2119)	coreprof%psi%boundary%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%psi%boundary%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.4.1.3)
jni (2349)	coreprof%psi%jni (jni) (7.9.4.1.237)
value (2281)	coreprof%psi%jni%value (vecflt_type) (7.9.4.1.14)
integral (2281)	coreprof%psi%jni%integral (vecflt_type) (7.9.4.1.14)
source (2281)	coreprof%psi%jni%source (string) (7.9.4.1.4)
sigma_par (2349)	coreprof%psi%sigma_par (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%psi%sigma_par%source (string) (7.9.4.1.4)
codeparam (2349)	coreprof%psi%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%psi%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%psi%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%psi%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%psi%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%psi%codeparam%output_flag (integer) (7.9.4.1.3)
te (2070)	coreprof%te (corefield) (7.9.4.1.110)
value (2154)	coreprof%te%value (vecflt_type) (7.9.4.1.14)
ddrho (2154)	coreprof%te%ddrho (vecflt_type) (7.9.4.1.14)
d2drho2 (2154)	coreprof%te%d2drho2 (vecflt_type) (7.9.4.1.14)
ddt (2154)	coreprof%te%ddt (vecflt_type) (7.9.4.1.14)
source (2154)	coreprof%te%source (string) (7.9.4.1.4)
flag (2154)	coreprof%te%flag (integer) (7.9.4.1.3)
boundary (2154)	coreprof%te%boundary (boundaryel) (7.9.4.1.77)
value (2121)	coreprof%te%boundary%value (vecflt_type) (7.9.4.1.14)
source (2121)	coreprof%te%boundary%source (string) (7.9.4.1.4)
type (2121)	coreprof%te%boundary%type (integer) (7.9.4.1.3)
rho_tor (2121)	coreprof%te%boundary%rho_tor (float) (7.9.4.1.2)
source_term (2154)	coreprof%te%source_term (sourceel) (7.9.4.1.383)
value (2427)	coreprof%te%source_term%value (vecflt_type) (7.9.4.1.14)
integral (2427)	coreprof%te%source_term%integral (vecflt_type) (7.9.4.1.14)
source (2427)	coreprof%te%source_term%source (string) (7.9.4.1.4)

transp_coef (2154)	coreprof%te%transp_coef (coretransel) (7.9.4.1.129)
diff (2173)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.4.1.14)
vconv (2173)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.4.1.14)
source (2173)	coreprof%te%transp_coef%source (string) (7.9.4.1.4)
flux (2154)	coreprof%te%flux (fluxel) (7.9.4.1.203)
flux_dv (2247)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.4.1.14)
flux_interp (2247)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.4.1.14)
flux_dv_surf (2154)	coreprof%te%flux_dv_surf (vecflt_type) (7.9.4.1.14)
time_deriv (2154)	coreprof%te%time_deriv (vecflt_type) (7.9.4.1.14)
codeparam (2154)	coreprof%te%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%te%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%te%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%te%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%te%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%te%codeparam%output_flag (integer) (7.9.4.1.3)
ti (2070)	coreprof%ti (corefieldion) (7.9.4.1.111)
value (2155)	coreprof%ti%value (matflt_type) (7.9.4.1.12)
ddrho (2155)	coreprof%ti%ddrho (matflt_type) (7.9.4.1.12)
d2drho2 (2155)	coreprof%ti%d2drho2 (matflt_type) (7.9.4.1.12)
ddt (2155)	coreprof%ti%ddt (matflt_type) (7.9.4.1.12)
source (2155)	coreprof%ti%source (vecstring_type) (7.9.4.1.16)
flag (2155)	coreprof%ti%flag (vecint_type) (7.9.4.1.15)
boundary (2155)	coreprof%ti%boundary (boundaryion) (7.9.4.1.79)
value (2123)	coreprof%ti%boundary%value (matflt_type) (7.9.4.1.12)
source (2123)	coreprof%ti%boundary%source (vecstring_type) (7.9.4.1.16)
type (2123)	coreprof%ti%boundary%type (vecint_type) (7.9.4.1.15)
rho_tor (2123)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.4.1.14)
source_term (2155)	coreprof%ti%source_term (sourceion) (7.9.4.1.385)
value (2429)	coreprof%ti%source_term%value (matflt_type) (7.9.4.1.12)
integral (2429)	coreprof%ti%source_term%integral (matflt_type) (7.9.4.1.12)
source (2429)	coreprof%ti%source_term%source (vecstring_type) (7.9.4.1.16)
transp_coef (2155)	coreprof%ti%transp_coef (coretransion) (7.9.4.1.131)
diff (2175)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.4.1.12)
vconv (2175)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.4.1.12)
source (2175)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.4.1.16)
flux (2155)	coreprof%ti%flux (fluxion) (7.9.4.1.205)
flux_dv (2249)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.4.1.12)
flux_interp (2249)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.4.1.12)
flux_dv_surf (2155)	coreprof%ti%flux_dv_surf (matflt_type) (7.9.4.1.12)
time_deriv (2155)	coreprof%ti%time_deriv (matflt_type) (7.9.4.1.12)
codeparam (2155)	coreprof%ti%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%ti%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%ti%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%ti%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%ti%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%ti%codeparam%output_flag (integer) (7.9.4.1.3)
ne (2070)	coreprof%ne (corefield) (7.9.4.1.110)
value (2154)	coreprof%ne%value (vecflt_type) (7.9.4.1.14)
ddrho (2154)	coreprof%ne%ddrho (vecflt_type) (7.9.4.1.14)
d2drho2 (2154)	coreprof%ne%d2drho2 (vecflt_type) (7.9.4.1.14)
ddt (2154)	coreprof%ne%ddt (vecflt_type) (7.9.4.1.14)
source (2154)	coreprof%ne%source (string) (7.9.4.1.4)
flag (2154)	coreprof%ne%flag (integer) (7.9.4.1.3)
boundary (2154)	coreprof%ne%boundary (boundaryel) (7.9.4.1.77)
value (2121)	coreprof%ne%boundary%value (vecflt_type) (7.9.4.1.14)
source (2121)	coreprof%ne%boundary%source (string) (7.9.4.1.4)
type (2121)	coreprof%ne%boundary%type (integer) (7.9.4.1.3)
rho_tor (2121)	coreprof%ne%boundary%rho_tor (float) (7.9.4.1.2)
source_term (2154)	coreprof%ne%source_term (sourceel) (7.9.4.1.383)
value (2427)	coreprof%ne%source_term%value (vecflt_type) (7.9.4.1.14)
integral (2427)	coreprof%ne%source_term%integral (vecflt_type) (7.9.4.1.14)

source (2427)	coreprof%ne%source_term%source (string) (7.9.4.1.4)
transp_coef (2154)	coreprof%ne%transp_coef (coretransel) (7.9.4.1.129)
diff (2173)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.4.1.14)
vconv (2173)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.4.1.14)
source (2173)	coreprof%ne%transp_coef%source (string) (7.9.4.1.4)
flux (2154)	coreprof%ne%flux (fluxel) (7.9.4.1.203)
flux_dv (2247)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.4.1.14)
flux_interp (2247)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.4.1.14)
flux_dv_surf (2154)	coreprof%ne%flux_dv_surf (vecflt_type) (7.9.4.1.14)
time_deriv (2154)	coreprof%ne%time_deriv (vecflt_type) (7.9.4.1.14)
codeparam (2154)	coreprof%ne%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%ne%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%ne%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%ne%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%ne%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%ne%codeparam%output_flag (integer) (7.9.4.1.3)
ni (2070)	coreprof%ni (corefieldion) (7.9.4.1.111)
value (2155)	coreprof%ni%value (matflt_type) (7.9.4.1.12)
ddrho (2155)	coreprof%ni%ddrho (matflt_type) (7.9.4.1.12)
d2drho2 (2155)	coreprof%ni%d2drho2 (matflt_type) (7.9.4.1.12)
ddt (2155)	coreprof%ni%ddt (matflt_type) (7.9.4.1.12)
source (2155)	coreprof%ni%source (vecstring_type) (7.9.4.1.16)
flag (2155)	coreprof%ni%flag (vecint_type) (7.9.4.1.15)
boundary (2155)	coreprof%ni%boundary (boundaryion) (7.9.4.1.79)
value (2123)	coreprof%ni%boundary%value (matflt_type) (7.9.4.1.12)
source (2123)	coreprof%ni%boundary%source (vecstring_type) (7.9.4.1.16)
type (2123)	coreprof%ni%boundary%type (vecint_type) (7.9.4.1.15)
rho_tor (2123)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.4.1.14)
source_term (2155)	coreprof%ni%source_term (sourceion) (7.9.4.1.385)
value (2429)	coreprof%ni%source_term%value (matflt_type) (7.9.4.1.12)
integral (2429)	coreprof%ni%source_term%integral (matflt_type) (7.9.4.1.12)
source (2429)	coreprof%ni%source_term%source (vecstring_type) (7.9.4.1.16)
transp_coef (2155)	coreprof%ni%transp_coef (coretransion) (7.9.4.1.131)
diff (2175)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.4.1.12)
vconv (2175)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.4.1.12)
source (2175)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.4.1.16)
flux (2155)	coreprof%ni%flux (fluxion) (7.9.4.1.205)
flux_dv (2249)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.4.1.12)
flux_interp (2249)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.4.1.12)
flux_dv_surf (2155)	coreprof%ni%flux_dv_surf (matflt_type) (7.9.4.1.12)
time_deriv (2155)	coreprof%ni%time_deriv (matflt_type) (7.9.4.1.12)
codeparam (2155)	coreprof%ni%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%ni%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%ni%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%ni%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%ni%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%ni%codeparam%output_flag (integer) (7.9.4.1.3)
vtor (2070)	coreprof%vtor (corefieldion) (7.9.4.1.111)
value (2155)	coreprof%vtor%value (matflt_type) (7.9.4.1.12)
ddrho (2155)	coreprof%vtor%ddrho (matflt_type) (7.9.4.1.12)
d2drho2 (2155)	coreprof%vtor%d2drho2 (matflt_type) (7.9.4.1.12)
ddt (2155)	coreprof%vtor%ddt (matflt_type) (7.9.4.1.12)
source (2155)	coreprof%vtor%source (vecstring_type) (7.9.4.1.16)
flag (2155)	coreprof%vtor%flag (vecint_type) (7.9.4.1.15)
boundary (2155)	coreprof%vtor%boundary (boundaryion) (7.9.4.1.79)
value (2123)	coreprof%vtor%boundary%value (matflt_type) (7.9.4.1.12)
source (2123)	coreprof%vtor%boundary%source (vecstring_type) (7.9.4.1.16)
type (2123)	coreprof%vtor%boundary%type (vecint_type) (7.9.4.1.15)
rho_tor (2123)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.4.1.14)
source_term (2155)	coreprof%vtor%source_term (sourceion) (7.9.4.1.385)
value (2429)	coreprof%vtor%source_term%value (matflt_type) (7.9.4.1.12)

integral (2429)	coreprof%vtor%source_term%integral (matflt_type) (7.9.4.1.12)
source (2429)	coreprof%vtor%source_term%source (vecstring_type) (7.9.4.1.16)
transp_coef (2155)	coreprof%vtor%transp_coef (coretransion) (7.9.4.1.131)
diff (2175)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.4.1.12)
vconv (2175)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.4.1.12)
source (2175)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.4.1.16)
flux (2155)	coreprof%vtor%flux (fluxion) (7.9.4.1.205)
flux_dv (2249)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.4.1.12)
flux_interp (2249)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.4.1.12)
flux_dv_surf (2155)	coreprof%vtor%flux_dv_surf (matflt_type) (7.9.4.1.12)
time_deriv (2155)	coreprof%vtor%time_deriv (matflt_type) (7.9.4.1.12)
codeparam (2155)	coreprof%vtor%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%vtor%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%vtor%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%vtor%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%vtor%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%vtor%codeparam%output_flag (integer) (7.9.4.1.3)
profiles1d (2070)	coreprof%profiles1d (profiles1d) (7.9.4.1.303)
pe (2347)	coreprof%profiles1d%pe (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%pe%source (string) (7.9.4.1.4)
dpedt (2347)	coreprof%profiles1d%dpedt (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%dpedt%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%dpedt%source (string) (7.9.4.1.4)
pi (2347)	coreprof%profiles1d%pi (coreprofion) (7.9.4.1.127)
value (2171)	coreprof%profiles1d%pi%value (matflt_type) (7.9.4.1.12)
source (2171)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.4.1.16)
pi_tot (2347)	coreprof%profiles1d%pi_tot (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%pi_tot%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%pi_tot%source (string) (7.9.4.1.4)
dpi_totdt (2347)	coreprof%profiles1d%dpi_totdt (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%dpi_totdt%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%dpi_totdt%source (string) (7.9.4.1.4)
pr_th (2347)	coreprof%profiles1d%pr_th (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%pr_th%source (string) (7.9.4.1.4)
pr_perp (2347)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%pr_perp%source (string) (7.9.4.1.4)
pr_parallel (2347)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%pr_parallel%source (string) (7.9.4.1.4)
jtot (2347)	coreprof%profiles1d%jtot (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%jtot%source (string) (7.9.4.1.4)
jni (2347)	coreprof%profiles1d%jni (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%jni%source (string) (7.9.4.1.4)
jphi (2347)	coreprof%profiles1d%jphi (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%jphi%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%jphi%source (string) (7.9.4.1.4)
joh (2347)	coreprof%profiles1d%joh (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%joh%source (string) (7.9.4.1.4)
vloop (2347)	coreprof%profiles1d%vloop (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%vloop%source (string) (7.9.4.1.4)
sigmapar (2347)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%sigmapar%source (string) (7.9.4.1.4)
qoh (2347)	coreprof%profiles1d%qoh (sourceel) (7.9.4.1.383)

value (2427)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.4.1.14)
integral (2427)	coreprof%profiles1d%qoh%integral (vecflt_type) (7.9.4.1.14)
source (2427)	coreprof%profiles1d%qoh%source (string) (7.9.4.1.4)
qei (2347)	coreprof%profiles1d%qei (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%qei%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%qei%source (string) (7.9.4.1.4)
eparallel (2347)	coreprof%profiles1d%eparallel (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%eparallel%source (string) (7.9.4.1.4)
e_b (2347)	coreprof%profiles1d%e_b (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%e_b%source (string) (7.9.4.1.4)
q (2347)	coreprof%profiles1d%q (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%q%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%q%source (string) (7.9.4.1.4)
shear (2347)	coreprof%profiles1d%shear (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%shear%source (string) (7.9.4.1.4)
ns (2347)	coreprof%profiles1d%ns (coreprofion) (7.9.4.1.127)
value (2171)	coreprof%profiles1d%ns%value (matflt_type) (7.9.4.1.12)
source (2171)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.4.1.16)
mtor (2347)	coreprof%profiles1d%mtor (coreprofion) (7.9.4.1.127)
value (2171)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.4.1.12)
source (2171)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.4.1.16)
wtor (2347)	coreprof%profiles1d%wtor (coreprofion) (7.9.4.1.127)
value (2171)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.4.1.12)
source (2171)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.4.1.16)
zeff (2347)	coreprof%profiles1d%zeff (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%zeff%source (string) (7.9.4.1.4)
bpol (2347)	coreprof%profiles1d%bpol (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%bpol%source (string) (7.9.4.1.4)
dvprimedt (2347)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.4.1.126)
value (2170)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.4.1.14)
source (2170)	coreprof%profiles1d%dvprimedt%source (string) (7.9.4.1.4)
globalparam (2070)	coreprof%globalparam (globalparam) (7.9.4.1.225)
current_tot (2269)	coreprof%globalparam%current_tot (float) (7.9.4.1.2)
current_bnd (2269)	coreprof%globalparam%current_bnd (float) (7.9.4.1.2)
current_ni (2269)	coreprof%globalparam%current_ni (float) (7.9.4.1.2)
vloop (2269)	coreprof%globalparam%vloop (float) (7.9.4.1.2)
li (2269)	coreprof%globalparam%li (float) (7.9.4.1.2)
beta_tor (2269)	coreprof%globalparam%beta_tor (float) (7.9.4.1.2)
beta_normal (2269)	coreprof%globalparam%beta_normal (float) (7.9.4.1.2)
beta_pol (2269)	coreprof%globalparam%beta_pol (float) (7.9.4.1.2)
w_dia (2269)	coreprof%globalparam%w_dia (float) (7.9.4.1.2)
codeparam (2070)	coreprof%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coreprof%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coreprof%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coreprof%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coreprof%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coreprof%codeparam%output_flag (integer) (7.9.4.1.3)
time (2070)	coreprof%time (float) (7.9.4.1.2)

7.9.4.2.9 coresource

datainfo (2071)	coresource%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coresource%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	coresource%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coresource%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coresource%datainfo%comment (string) (7.9.4.1.4)

cocos (2181)	coresource%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coresource%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	coresource%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coresource%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coresource%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coresource%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coresource%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coresource%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coresource%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coresource%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coresource%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coresource%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coresource%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coresource%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2071)	coresource%composition (composition) (7.9.4.1.100)
amn (2144)	coresource%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	coresource%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	coresource%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	coresource%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	coresource%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2071)	coresource%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coresource%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coresource%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coresource%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coresource%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coresource%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coresource%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coresource%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2071)	coresource%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coresource%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coresource%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coresource%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coresource%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coresource%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coresource%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coresource%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coresource%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coresource%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coresource%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coresource%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coresource%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coresource%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coresource%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coresource%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coresource%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coresource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coresource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coresource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coresource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coresource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coresource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coresource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coresource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coresource%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	coresource%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coresource%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coresource%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coresource%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coresource%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coresource%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coresource%compositions%signature%id (string) (7.9.4.1.4)

flag (2274)	coresource%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coresource%compositions%signature%description (string) (7.9.4.1.4)
toroid_field (2071)	coresource%toroid_field (b0r0) (7.9.4.1.72)
r0 (2116)	coresource%toroid_field%r0 (float) (7.9.4.1.2)
b0 (2116)	coresource%toroid_field%b0 (float) (7.9.4.1.2)
values (2071)	coresource%values(:) (coresource_values) (7.9.4.1.128)
sourceid (2172)	coresource%values(:)%sourceid (identifier) (7.9.4.1.230)
id (2274)	coresource%values(:)%sourceid%id (string) (7.9.4.1.4)
flag (2274)	coresource%values(:)%sourceid%flag (integer) (7.9.4.1.3)
description (2274)	coresource%values(:)%sourceid%description (string) (7.9.4.1.4)
rho_tor (2172)	coresource%values(:)%rho_tor (vecflt_type) (7.9.4.1.14)
rho_tor_norm (2172)	coresource%values(:)%rho_tor_norm (vecflt_type) (7.9.4.1.14)
j (2172)	coresource%values(:)%j (vecflt_type) (7.9.4.1.14)
sigma (2172)	coresource%values(:)%sigma (vecflt_type) (7.9.4.1.14)
si (2172)	coresource%values(:)%si (source_ion) (7.9.4.1.378)
exp (2422)	coresource%values(:)%si%exp (matflt_type) (7.9.4.1.12)
imp (2422)	coresource%values(:)%si%imp (matflt_type) (7.9.4.1.12)
se (2172)	coresource%values(:)%se (source_vec) (7.9.4.1.382)
exp (2426)	coresource%values(:)%se%exp (vecflt_type) (7.9.4.1.14)
imp (2426)	coresource%values(:)%se%imp (vecflt_type) (7.9.4.1.14)
sz (2172)	coresource%values(:)%sz(:) (source_imp) (7.9.4.1.377)
exp (2421)	coresource%values(:)%sz(:)%exp (matflt_type) (7.9.4.1.12)
imp (2421)	coresource%values(:)%sz(:)%imp (matflt_type) (7.9.4.1.12)
qi (2172)	coresource%values(:)%qi (source_ion) (7.9.4.1.378)
exp (2422)	coresource%values(:)%qi%exp (matflt_type) (7.9.4.1.12)
imp (2422)	coresource%values(:)%qi%imp (matflt_type) (7.9.4.1.12)
qe (2172)	coresource%values(:)%qe (source_vec) (7.9.4.1.382)
exp (2426)	coresource%values(:)%qe%exp (vecflt_type) (7.9.4.1.14)
imp (2426)	coresource%values(:)%qe%imp (vecflt_type) (7.9.4.1.14)
qz (2172)	coresource%values(:)%qz(:) (source_imp) (7.9.4.1.377)
exp (2421)	coresource%values(:)%qz(:)%exp (matflt_type) (7.9.4.1.12)
imp (2421)	coresource%values(:)%qz(:)%imp (matflt_type) (7.9.4.1.12)
ui (2172)	coresource%values(:)%ui (source_ion) (7.9.4.1.378)
exp (2422)	coresource%values(:)%ui%exp (matflt_type) (7.9.4.1.12)
imp (2422)	coresource%values(:)%ui%imp (matflt_type) (7.9.4.1.12)
ujxb (2172)	coresource%values(:)%ujxb (source_vec) (7.9.4.1.382)
exp (2426)	coresource%values(:)%ujxb%exp (vecflt_type) (7.9.4.1.14)
imp (2426)	coresource%values(:)%ujxb%imp (vecflt_type) (7.9.4.1.14)
codeparam (2172)	coresource%values(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coresource%values(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coresource%values(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coresource%values(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coresource%values(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coresource%values(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2071)	coresource%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coresource%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coresource%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coresource%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coresource%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coresource%codeparam%output_flag (integer) (7.9.4.1.3)
time (2071)	coresource%time (float) (7.9.4.1.2)

7.9.4.2.10 coretransp

datainfo (2072)	coretransp%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	coretransp%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	coretransp%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	coretransp%datainfo%source (string) (7.9.4.1.4)
comment (2181)	coretransp%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	coretransp%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	coretransp%datainfo%id (integer) (7.9.4.1.3)

isref (2181)	coretransp%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	coretransp%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	coretransp%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	coretransp%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	coretransp%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	coretransp%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	coretransp%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	coretransp%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	coretransp%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	coretransp%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	coretransp%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	coretransp%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2072)	coretransp%composition (composition) (7.9.4.1.100)
amn (2144)	coretransp%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	coretransp%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	coretransp%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	coretransp%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	coretransp%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2072)	coretransp%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	coretransp%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	coretransp%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	coretransp%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	coretransp%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	coretransp%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	coretransp%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	coretransp%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2072)	coretransp%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	coretransp%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	coretransp%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	coretransp%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	coretransp%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	coretransp%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	coretransp%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	coretransp%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	coretransp%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	coretransp%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	coretransp%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	coretransp%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	coretransp%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	coretransp%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	coretransp%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	coretransp%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	coretransp%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	coretransp%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	coretransp%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	coretransp%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	coretransp%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	coretransp%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	coretransp%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	coretransp%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	coretransp%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	coretransp%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	coretransp%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	coretransp%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	coretransp%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	coretransp%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	coretransp%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	coretransp%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	coretransp%compositions%signature%description (string) (7.9.4.1.4)

values (2072)	coretransp%values(:) (coretransp_values) (7.9.4.1.132)
transportid (2176)	coretransp%values(:)%transportid (identifier) (7.9.4.1.230)
id (2274)	coretransp%values(:)%transportid%id (string) (7.9.4.1.4)
flag (2274)	coretransp%values(:)%transportid%flag (integer) (7.9.4.1.3)
description (2274)	coretransp%values(:)%transportid%description (string) (7.9.4.1.4)
rho_tor_norm (2176)	coretransp%values(:)%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2176)	coretransp%values(:)%rho_tor (vecflt_type) (7.9.4.1.14)
sigma (2176)	coretransp%values(:)%sigma (vecflt_type) (7.9.4.1.14)
ni_transp (2176)	coretransp%values(:)%ni_transp (ni_transp) (7.9.4.1.274)
diff_eff (2318)	coretransp%values(:)%ni_transp%diff_eff (array3dflt_type) (7.9.4.1.6)
vconv_eff (2318)	coretransp%values(:)%ni_transp%vconv_eff (array3dflt_type) (7.9.4.1.6)
flux (2318)	coretransp%values(:)%ni_transp%flux (matflt_type) (7.9.4.1.12)
off_diagonal (2318)	coretransp%values(:)%ni_transp%off_diagonal (offdiagion) (7.9.4.1.278)
d_ni (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.4.1.6)
d_ti (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.4.1.6)
d_ne (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.4.1.12)
d_te (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_te (matflt_type) (7.9.4.1.12)
d_epar (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.4.1.12)
d_mtor (2322)	coretransp%values(:)%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.4.1.12)
flag (2318)	coretransp%values(:)%ni_transp%flag (integer) (7.9.4.1.3)
ne_transp (2176)	coretransp%values(:)%ne_transp (ne_transp) (7.9.4.1.272)
diff_eff (2316)	coretransp%values(:)%ne_transp%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2316)	coretransp%values(:)%ne_transp%vconv_eff (matflt_type) (7.9.4.1.12)
flux (2316)	coretransp%values(:)%ne_transp%flux (vecflt_type) (7.9.4.1.14)
off_diagonal (2316)	coretransp%values(:)%ne_transp%off_diagonal (offdiagel) (7.9.4.1.277)
d_ni (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.4.1.12)
d_ti (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.4.1.12)
d_ne (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.4.1.14)
d_te (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.4.1.14)
d_epar (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.4.1.14)
d_mtor (2321)	coretransp%values(:)%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.4.1.14)
flag (2316)	coretransp%values(:)%ne_transp%flag (integer) (7.9.4.1.3)
nz_transp (2176)	coretransp%values(:)%nz_transp(:) (transcoefimp) (7.9.4.1.407)
diff_eff (2451)	coretransp%values(:)%nz_transp(:)%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2451)	coretransp%values(:)%nz_transp(:)%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2451)	coretransp%values(:)%nz_transp(:)%exchange (matflt_type) (7.9.4.1.12)
flux (2451)	coretransp%values(:)%nz_transp(:)%flux (matflt_type) (7.9.4.1.12)
flag (2451)	coretransp%values(:)%nz_transp(:)%flag (integer) (7.9.4.1.3)
ti_transp (2176)	coretransp%values(:)%ti_transp (transcoefion) (7.9.4.1.408)
diff_eff (2452)	coretransp%values(:)%ti_transp%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2452)	coretransp%values(:)%ti_transp%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2452)	coretransp%values(:)%ti_transp%exchange (matflt_type) (7.9.4.1.12)
qgi (2452)	coretransp%values(:)%ti_transp%qgi (matflt_type) (7.9.4.1.12)
flux (2452)	coretransp%values(:)%ti_transp%flux (matflt_type) (7.9.4.1.12)
off_diagonal (2452)	coretransp%values(:)%ti_transp%off_diagonal (offdiagion) (7.9.4.1.278)
d_ni (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.4.1.6)
d_ti (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.4.1.6)
d_ne (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.4.1.12)
d_te (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_te (matflt_type) (7.9.4.1.12)
d_epar (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.4.1.12)
d_mtor (2322)	coretransp%values(:)%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.4.1.12)
flag (2452)	coretransp%values(:)%ti_transp%flag (integer) (7.9.4.1.3)
te_transp (2176)	coretransp%values(:)%te_transp (transcoefel) (7.9.4.1.406)
diff_eff (2450)	coretransp%values(:)%te_transp%diff_eff (vecflt_type) (7.9.4.1.14)
vconv_eff (2450)	coretransp%values(:)%te_transp%vconv_eff (vecflt_type) (7.9.4.1.14)
flux (2450)	coretransp%values(:)%te_transp%flux (vecflt_type) (7.9.4.1.14)
off_diagonal (2450)	coretransp%values(:)%te_transp%off_diagonal (offdiagel) (7.9.4.1.277)
d_ni (2321)	coretransp%values(:)%te_transp%off_diagonal%d_ni (matflt_type) (7.9.4.1.12)
d_ti (2321)	coretransp%values(:)%te_transp%off_diagonal%d_ti (matflt_type) (7.9.4.1.12)
d_ne (2321)	coretransp%values(:)%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.4.1.14)
d_te (2321)	coretransp%values(:)%te_transp%off_diagonal%d_te (vecflt_type) (7.9.4.1.14)

d_epar (2321)	coretransp%values(:)%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.4.1.14)
d_mtor (2321)	coretransp%values(:)%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.4.1.14)
flag (2450)	coretransp%values(:)%te_transp%flag (integer) (7.9.4.1.3)
tz_transp (2176)	coretransp%values(:)%tz_transp(:) (transcoefimp) (7.9.4.1.407)
diff_eff (2451)	coretransp%values(:)%tz_transp(:)%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2451)	coretransp%values(:)%tz_transp(:)%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2451)	coretransp%values(:)%tz_transp(:)%exchange (matflt_type) (7.9.4.1.12)
flux (2451)	coretransp%values(:)%tz_transp(:)%flux (matflt_type) (7.9.4.1.12)
flag (2451)	coretransp%values(:)%tz_transp(:)%flag (integer) (7.9.4.1.3)
vtor_transp (2176)	coretransp%values(:)%vtor_transp (transcoefvtor) (7.9.4.1.409)
diff_eff (2453)	coretransp%values(:)%vtor_transp%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2453)	coretransp%values(:)%vtor_transp%vconv_eff (matflt_type) (7.9.4.1.12)
flux (2453)	coretransp%values(:)%vtor_transp%flux (matflt_type) (7.9.4.1.12)
off_diagonal (2453)	coretransp%values(:)%vtor_transp%off_diagonal (offdiagion) (7.9.4.1.278)
d_ni (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.4.1.6)
d_ti (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.4.1.6)
d_ne (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.4.1.12)
d_te (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.4.1.12)
d_epar (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.4.1.12)
d_mtor (2322)	coretransp%values(:)%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.4.1.12)
flag (2453)	coretransp%values(:)%vtor_transp%flag (integer) (7.9.4.1.3)
codeparam (2176)	coretransp%values(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coretransp%values(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coretransp%values(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coretransp%values(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coretransp%values(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coretransp%values(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2072)	coretransp%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	coretransp%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	coretransp%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	coretransp%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	coretransp%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	coretransp%codeparam%output_flag (integer) (7.9.4.1.3)
time (2072)	coretransp%time (float) (7.9.4.1.2)

7.9.4.2.11 cxdiag

datainfo (2073)	cxdiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	cxdiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	cxdiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	cxdiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	cxdiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	cxdiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	cxdiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	cxdiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	cxdiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	cxdiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	cxdiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	cxdiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	cxdiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	cxdiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	cxdiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2073)	cxdiag%setup (cxsetup) (7.9.4.1.135)
position (2179)	cxdiag%setup%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	cxdiag%setup%position%r (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%setup%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.4.1.14)

relerror (2241)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	cxdiag%setup%position%z (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%setup%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	cxdiag%setup%position%phi (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2073)	cxdiag%measure (cxmeasure) (7.9.4.1.134)
ti (2178)	cxdiag%measure%ti (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%measure%ti%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.4.1.14)
vtor (2178)	cxdiag%measure%vtor (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%measure%vtor%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.4.1.14)
vpol (2178)	cxdiag%measure%vpol (exp1D) (7.9.4.1.197)
value (2241)	cxdiag%measure%vpol%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.4.1.14)
time (2073)	cxdiag%time (float) (7.9.4.1.2)

7.9.4.2.12 distribution

datainfo (2074)	distribution%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	distribution%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	distribution%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	distribution%datainfo%source (string) (7.9.4.1.4)
comment (2181)	distribution%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	distribution%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	distribution%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	distribution%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	distribution%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	distribution%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	distribution%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	distribution%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	distribution%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	distribution%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	distribution%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	distribution%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	distribution%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	distribution%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	distribution%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2074)	distribution%composition (composition) (7.9.4.1.100)
amn (2144)	distribution%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	distribution%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	distribution%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	distribution%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	distribution%composition%label (vecstring_type) (7.9.4.1.16)
compositions (2074)	distribution%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	distribution%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	distribution%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	distribution%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	distribution%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	distribution%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	distribution%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	distribution%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	distribution%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	distribution%compositions%ions(:)%label (string) (7.9.4.1.4)

impurities (2148)	distribution%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	distribution%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	distribution%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	distribution%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	distribution%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	distribution%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	distribution%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	distribution%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	distribution%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	distribution%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	distribution%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	distribution%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	distribution%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	distribution%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	distribution%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	distribution%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	distribution%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	distribution%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	distribution%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	distribution%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	distribution%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	distribution%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	distribution%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	distribution%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	distribution%compositions%signature%description (string) (7.9.4.1.4)
distri_vec (2074)	distribution%distri_vec(:) (distri_vec) (7.9.4.1.167)
wave_id (2211)	distribution%distri_vec(:)%wave_id(:) (enum_instance) (7.9.4.1.189)
type (2233)	distribution%distri_vec(:)%wave_id(:)%type (identifier) (7.9.4.1.230)
id (2274)	distribution%distri_vec(:)%wave_id(:)%type%id (string) (7.9.4.1.4)
flag (2274)	distribution%distri_vec(:)%wave_id(:)%type%flag (integer) (7.9.4.1.3)
description (2274)	distribution%distri_vec(:)%wave_id(:)%type%description (string) (7.9.4.1.4)
name (2233)	distribution%distri_vec(:)%wave_id(:)%name (string) (7.9.4.1.4)
index (2233)	distribution%distri_vec(:)%wave_id(:)%index (integer) (7.9.4.1.3)
source_id (2211)	distribution%distri_vec(:)%source_id(:) (enum_instance) (7.9.4.1.189)
type (2233)	distribution%distri_vec(:)%source_id(:)%type (identifier) (7.9.4.1.230)
id (2274)	distribution%distri_vec(:)%source_id(:)%type%id (string) (7.9.4.1.4)
flag (2274)	distribution%distri_vec(:)%source_id(:)%type%flag (integer) (7.9.4.1.3)
description (2274)	distribution%distri_vec(:)%source_id(:)%type%description (string) (7.9.4.1.4)
name (2233)	distribution%distri_vec(:)%source_id(:)%name (string) (7.9.4.1.4)
index (2233)	distribution%distri_vec(:)%source_id(:)%index (integer) (7.9.4.1.3)
calc_spec (2211)	distribution%distri_vec(:)%calc_spec (integer) (7.9.4.1.3)
gyro_type (2211)	distribution%distri_vec(:)%gyro_type (integer) (7.9.4.1.3)
global_param (2211)	distribution%distri_vec(:)%global_param (dist_glob) (7.9.4.1.147)
n_particles (2191)	distribution%distri_vec(:)%global_param%n_particles (float) (7.9.4.1.2)
enrg (2191)	distribution%distri_vec(:)%global_param%enrg (float) (7.9.4.1.2)
enrg_para (2191)	distribution%distri_vec(:)%global_param%enrg_para (float) (7.9.4.1.2)
pow_coll_i (2191)	distribution%distri_vec(:)%global_param%pow_coll_i (vecflt_type) (7.9.4.1.14)
pow_coll_e (2191)	distribution%distri_vec(:)%global_param%pow_coll_e (float) (7.9.4.1.2)
therm_src (2191)	distribution%distri_vec(:)%global_param%therm_src (dist_src_snk_tot) (7.9.4.1.164)
particles (2208)	distribution%distri_vec(:)%global_param%therm_src%particles (float) (7.9.4.1.2)
power (2208)	distribution%distri_vec(:)%global_param%therm_src%power (float) (7.9.4.1.2)
torque (2208)	distribution%distri_vec(:)%global_param%therm_src%torque (float) (7.9.4.1.2)
losses (2191)	distribution%distri_vec(:)%global_param%losses (dist_glob_dist_losses) (7.9.4.1.148)
orb_loss (2192)	distribution%distri_vec(:)%global_param%losses%orb_loss (dist_src_snk_tot) (7.9.4.1.164)
particles (2208)	distribution%distri_vec(:)%global_param%losses%orb_loss%particles (float) (7.9.4.1.2)
power (2208)	distribution%distri_vec(:)%global_param%losses%orb_loss%power (float) (7.9.4.1.2)
torque (2208)	distribution%distri_vec(:)%global_param%losses%orb_loss%torque (float) (7.9.4.1.2)
neutr_loss (2192)	distribution%distri_vec(:)%global_param%losses%neutr_loss (dist_src_snk_tot) (7.9.4.1.164)
particles (2208)	distribution%distri_vec(:)%global_param%losses%neutr_loss%particles (float) (7.9.4.1.2)
power (2208)	distribution%distri_vec(:)%global_param%losses%neutr_loss%power (float) (7.9.4.1.2)
torque (2208)	distribution%distri_vec(:)%global_param%losses%neutr_loss%torque (float) (7.9.4.1.2)

cur_dr_tor (2191)	distribution%distri_vec(:)%global_param%cur_dr_tor (float) (7.9.4.1.2)
trq_i (2191)	distribution%distri_vec(:)%global_param%trq_i (vecflt_type) (7.9.4.1.14)
trq_e (2191)	distribution%distri_vec(:)%global_param%trq_e (float) (7.9.4.1.2)
trq_j_rxb (2191)	distribution%distri_vec(:)%global_param%trq_j_rxb (float) (7.9.4.1.2)
nucl_reac_th (2191)	distribution%distri_vec(:)%global_param%nucl_reac_th (dist_nucl_reac_th) (7.9.4.1.154)
rate (2198)	distribution%distri_vec(:)%global_param%nucl_reac_th%rate (vecflt_type) (7.9.4.1.14)
power (2198)	distribution%distri_vec(:)%global_param%nucl_reac_th%power (vecflt_type) (7.9.4.1.14)
nucl_reac_sf (2191)	distribution%distri_vec(:)%global_param%nucl_reac_sf (dist_nucl_reac_sf) (7.9.4.1.153)
rate (2197)	distribution%distri_vec(:)%global_param%nucl_reac_sf%rate (float) (7.9.4.1.2)
power (2197)	distribution%distri_vec(:)%global_param%nucl_reac_sf%power (float) (7.9.4.1.2)
profiles_1d (2211)	distribution%distri_vec(:)%profiles_1d (dist_profiles) (7.9.4.1.162)
rho_tor_norm (2206)	distribution%distri_vec(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2206)	distribution%distri_vec(:)%profiles_1d%rho_tor (vecflt_type) (7.9.4.1.14)
psi (2206)	distribution%distri_vec(:)%profiles_1d%psi (vecflt_type) (7.9.4.1.14)
dens (2206)	distribution%distri_vec(:)%profiles_1d%dens (vecflt_type) (7.9.4.1.14)
enrgd_tot (2206)	distribution%distri_vec(:)%profiles_1d%enrgd_tot (vecflt_type) (7.9.4.1.14)
enrgd_para (2206)	distribution%distri_vec(:)%profiles_1d%enrgd_para (vecflt_type) (7.9.4.1.14)
powd_coll_i (2206)	distribution%distri_vec(:)%profiles_1d%powd_coll_i (matflt_type) (7.9.4.1.12)
powd_coll_e (2206)	distribution%distri_vec(:)%profiles_1d%powd_coll_e (vecflt_type) (7.9.4.1.14)
therm_srcd (2206)	distribution%distri_vec(:)%profiles_1d%therm_srcd (dist_src_snk_surf) (7.9.4.1.163)
particlesd (2207)	distribution%distri_vec(:)%profiles_1d%therm_srcd%particlesd (vecflt_type) (7.9.4.1.14)
powerd (2207)	distribution%distri_vec(:)%profiles_1d%therm_srcd%powerd (vecflt_type) (7.9.4.1.14)
torqued (2207)	distribution%distri_vec(:)%profiles_1d%therm_srcd%torqued (vecflt_type) (7.9.4.1.14)
lossesd (2206)	distribution%distri_vec(:)%profiles_1d%lossesd (dist_prof_surf_dist_losses) (7.9.4.1.156)
orb_loss (2200)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss (dist_src_snk_surf) (7.9.4.1.163)
particlesd (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%particlesd (vecflt_type) (7.9.4.1.14)
powerd (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%powerd (vecflt_type) (7.9.4.1.14)
torqued (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%torqued (vecflt_type) (7.9.4.1.14)
neutr_loss (2200)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss (dist_src_snk_surf) (7.9.4.1.163)
particlesd (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%particlesd (vecflt_type) (7.9.4.1.14)
powerd (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%powerd (vecflt_type) (7.9.4.1.14)
torqued (2207)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%torqued (vecflt_type) (7.9.4.1.14)
curd_fp (2206)	distribution%distri_vec(:)%profiles_1d%curd_fp (vecflt_type) (7.9.4.1.14)
curd_dr (2206)	distribution%distri_vec(:)%profiles_1d%curd_dr (vecflt_type) (7.9.4.1.14)
trqd_i (2206)	distribution%distri_vec(:)%profiles_1d%trqd_i (matflt_type) (7.9.4.1.12)
trqd_e (2206)	distribution%distri_vec(:)%profiles_1d%trqd_e (vecflt_type) (7.9.4.1.14)
trqd_jrxb (2206)	distribution%distri_vec(:)%profiles_1d%trqd_jrxb (vecflt_type) (7.9.4.1.14)
nucl_rd_th (2206)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th (dist_prof_surf_nucl_reac_th) (7.9.4.1.158)
rated (2202)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th%rated (matflt_type) (7.9.4.1.12)
powerd (2202)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th%powerd (matflt_type) (7.9.4.1.12)
nucl_rd_sf (2206)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf (dist_prof_surf_nucl_reac_sf) (7.9.4.1.157)
rate (2201)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf%rate (vecflt_type) (7.9.4.1.14)
power (2201)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf%power (vecflt_type) (7.9.4.1.14)
enrg_tot (2206)	distribution%distri_vec(:)%profiles_1d%enrg_tot (vecflt_type) (7.9.4.1.14)
enrg_para (2206)	distribution%distri_vec(:)%profiles_1d%enrg_para (vecflt_type) (7.9.4.1.14)
pow_coll_i (2206)	distribution%distri_vec(:)%profiles_1d%pow_coll_i (matflt_type) (7.9.4.1.12)
pow_coll_e (2206)	distribution%distri_vec(:)%profiles_1d%pow_coll_e (vecflt_type) (7.9.4.1.14)
therm_src (2206)	distribution%distri_vec(:)%profiles_1d%therm_src (dist_src_snk_vol) (7.9.4.1.165)
particles (2209)	distribution%distri_vec(:)%profiles_1d%therm_src%particles (vecflt_type) (7.9.4.1.14)
power (2209)	distribution%distri_vec(:)%profiles_1d%therm_src%power (vecflt_type) (7.9.4.1.14)
torque (2209)	distribution%distri_vec(:)%profiles_1d%therm_src%torque (vecflt_type) (7.9.4.1.14)
losses (2206)	distribution%distri_vec(:)%profiles_1d%losses (dist_prof_vol_dist_losses) (7.9.4.1.159)
orb_loss (2203)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss (dist_src_snk_vol) (7.9.4.1.165)
particles (2209)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%particles (vecflt_type) (7.9.4.1.14)
power (2209)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%power (vecflt_type) (7.9.4.1.14)
torque (2209)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%torque (vecflt_type) (7.9.4.1.14)
neutr_loss (2203)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss (dist_src_snk_vol) (7.9.4.1.165)
particles (2209)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%particles (vecflt_type) (7.9.4.1.14)
power (2209)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%power (vecflt_type) (7.9.4.1.14)
torque (2209)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%torque (vecflt_type) (7.9.4.1.14)
cur_fp (2206)	distribution%distri_vec(:)%profiles_1d%cur_fp (vecflt_type) (7.9.4.1.14)

cur_dr (2206)	distribution%distri_vec(:)%profiles_1d%cur_dr (vecflt_type) (7.9.4.1.14)
trq_i (2206)	distribution%distri_vec(:)%profiles_1d%trq_i (matflt_type) (7.9.4.1.12)
trq_e (2206)	distribution%distri_vec(:)%profiles_1d%trq_e (vecflt_type) (7.9.4.1.14)
trq_j_rxb (2206)	distribution%distri_vec(:)%profiles_1d%trq_j_rxb (vecflt_type) (7.9.4.1.14)
nucl_reac_th (2206)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th (dist_prof_vol_nucl_reac_th) (7.9.4.1.161)
rate (2205)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th%rate (matflt_type) (7.9.4.1.12)
power (2205)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th%power (matflt_type) (7.9.4.1.12)
nucl_reac_sf (2206)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf (dist_prof_vol_nucl_reac_sf) (7.9.4.1.160)
rate (2204)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf%rate (vecflt_type) (7.9.4.1.14)
power (2204)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf%power (vecflt_type) (7.9.4.1.14)
dist_func (2211)	distribution%distri_vec(:)%dist_func (dist_func) (7.9.4.1.146)
is_delta_f (2190)	distribution%distri_vec(:)%dist_func%is_delta_f (integer) (7.9.4.1.3)
markers (2190)	distribution%distri_vec(:)%dist_func%markers (weighted_markers) (7.9.4.1.442)
variable_ids (2486)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:) (identifier) (7.9.4.1.230)
id (2274)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%id (string) (7.9.4.1.4)
flag (2274)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%flag (integer) (7.9.4.1.3)
description (2274)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%description (string) (7.9.4.1.4)
coord (2486)	distribution%distri_vec(:)%dist_func%markers%coord (matflt_type) (7.9.4.1.12)
weight (2486)	distribution%distri_vec(:)%dist_func%markers%weight (vecflt_type) (7.9.4.1.14)
f_expan_topo (2190)	distribution%distri_vec(:)%dist_func%f_expan_topo(:) (dist_ff) (7.9.4.1.145)
grid_info (2189)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info (dist_grid_info) (7.9.4.1.149)
grid_type (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_type (integer) (7.9.4.1.3)
ngriddim (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%ngriddim (integer) (7.9.4.1.3)
grid_coord (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_coord (vecint_type) (7.9.4.1.15)
thin_orbits (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%thin_orbits (integer) (7.9.4.1.3)
topology (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%topology (string) (7.9.4.1.4)
omnigen_surf (2193)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:) (omnigen_surf) (7.9.4.1.279)
rz (2323)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz (rz1D) (7.9.4.1.336)
r (2380)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%r (vecflt_type) (7.9.4.1.14)
z (2380)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%z (vecflt_type) (7.9.4.1.14)
s (2323)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%s (vecflt_type) (7.9.4.1.14)
topo_regions (2189)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:) (topo_regions) (7.9.4.1.403)
ind_omnigen (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%ind_omnigen (integer) (7.9.4.1.3)
dim1 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim1 (array6dflt_type) (7.9.4.1.10)
dim2 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim2 (array6dflt_type) (7.9.4.1.10)
dim3 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim3 (array6dflt_type) (7.9.4.1.10)
dim4 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim4 (array6dflt_type) (7.9.4.1.10)
dim5 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim5 (array6dflt_type) (7.9.4.1.10)
dim6 (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim6 (array6dflt_type) (7.9.4.1.10)
jacobian (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%jacobian (array6dflt_type) (7.9.4.1.10)
distfunc (2447)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%distfunc (array6dflt_type) (7.9.4.1.10)
f_expansion (2190)	distribution%distri_vec(:)%dist_func%f_expansion(:) (f_expansion) (7.9.4.1.199)
grid (2243)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid (complexgrid) (7.9.4.1.87)
uid (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%uid (integer) (7.9.4.1.3)
id (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%id (string) (7.9.4.1.4)
spaces (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:) (complexgrid_space) (7.9.4.1.96)
geotype (2140)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotype (vecint_type) (7.9.4.1.15)

geotypeid (2140)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.4.1.16)
coordtype (2140)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%coordtype (matint_type) (7.9.4.1.13)
objects (2140)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:) (objects) (7.9.4.1.276)
boundary (2320)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.4.1.13)
neighbour (2320)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.4.1.7)
geo (2320)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.4.1.8)
measure (2320)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.4.1.12)
xpoints (2140)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.4.1.15)
subgrids (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.4.1.97)
id (2141)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%id (string) (7.9.4.1.4)
list (2141)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.4.1.91)
cls (2135)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.4.1.15)
indset (2135)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.4.1.89)
range (2133)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.4.1.15)
ind (2133)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.4.1.15)
ind (2135)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.4.1.13)
metric (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric (complexgrid_metric) (7.9.4.1.90)
measure (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
g11 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.4.1.6)
g12 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.4.1.6)
g13 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%griduid (integer) (7.9.4.1.3)

subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.4.1.6)
g22 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.4.1.6)
g23 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.4.1.6)
g33 (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.4.1.6)
jacobian (2134)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.4.1.6)
geo (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:) (complexgrid_geo_global) (7.9.4.1.88)
geotype (2132)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotype (integer) (7.9.4.1.3)
geotypeid (2132)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotypeid (string) (7.9.4.1.4)
coordtype (2132)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%coordtype (vecint_type) (7.9.4.1.15)
geo_matrix (2132)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.4.1.12)

matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.4.1.6)
measure (2132)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
bases (2131)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%griduid (integer) (7.9.4.1.3)
label (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%label (string) (7.9.4.1.4)
comp (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%basis (integer) (7.9.4.1.3)
values (2243)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%matrix (array3dflt_type) (7.9.4.1.6)
input_src (2211)	distribution%distri_vec(:)%input_src (dist_input_src) (7.9.4.1.150)
particle_src (2194)	distribution%distri_vec(:)%input_src%particle_src (dist_particle_src) (7.9.4.1.155)
total (2199)	distribution%distri_vec(:)%input_src%particle_src%total (dist_src_snk_tot) (7.9.4.1.164)
particles (2208)	distribution%distri_vec(:)%input_src%particle_src%total%particles (float) (7.9.4.1.2)
power (2208)	distribution%distri_vec(:)%input_src%particle_src%total%power (float) (7.9.4.1.2)
torque (2208)	distribution%distri_vec(:)%input_src%particle_src%total%torque (float) (7.9.4.1.2)
volume_intgr (2199)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr (dist_src_snk_vol) (7.9.4.1.165)
particles (2209)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%particles (vecflt_type) (7.9.4.1.14)
power (2209)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%power (vecflt_type) (7.9.4.1.14)
torque (2209)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%torque (vecflt_type) (7.9.4.1.14)
flux_surf_av (2199)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av (dist_src_snk_surf) (7.9.4.1.163)
particlesd (2207)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%particlesd (vecflt_type) (7.9.4.1.14)
powerd (2207)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%powerd (vecflt_type) (7.9.4.1.14)
torqued (2207)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%torqued (vecflt_type) (7.9.4.1.14)
wave_src (2194)	distribution%distri_vec(:)%input_src%wave_src (dist_wave_src) (7.9.4.1.166)
type (2210)	distribution%distri_vec(:)%input_src%wave_src%type (string) (7.9.4.1.4)
wave_power (2210)	distribution%distri_vec(:)%input_src%wave_src%wave_power (float) (7.9.4.1.2)
wave_powerd (2210)	distribution%distri_vec(:)%input_src%wave_src%wave_powerd (vecflt_type) (7.9.4.1.14)

nucl_reac (2211)	distribution%distri_vec(:)%nucl_reac (dist_nucl_reac) (7.9.4.1.152)
point_reac (2196)	distribution%distri_vec(:)%nucl_reac%point_reac (vecint_type) (7.9.4.1.15)
id_reac (2196)	distribution%distri_vec(:)%nucl_reac%id_reac (vecint_type) (7.9.4.1.15)
codeparam (2211)	distribution%distri_vec(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	distribution%distri_vec(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	distribution%distri_vec(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	distribution%distri_vec(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	distribution%distri_vec(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	distribution%distri_vec(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2074)	distribution%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	distribution%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	distribution%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	distribution%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	distribution%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	distribution%codeparam%output_flag (integer) (7.9.4.1.3)
time (2074)	distribution%time (float) (7.9.4.1.2)

7.9.4.2.13 distsource

datainfo (2075)	distsource%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	distsource%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	distsource%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	distsource%datainfo%source (string) (7.9.4.1.4)
comment (2181)	distsource%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	distsource%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	distsource%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	distsource%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	distsource%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	distsource%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	distsource%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	distsource%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	distsource%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	distsource%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	distsource%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	distsource%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	distsource%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	distsource%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	distsource%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2075)	distsource%composition (composition) (7.9.4.1.100)
amn (2144)	distsource%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	distsource%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	distsource%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	distsource%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	distsource%composition%label (vecstring_type) (7.9.4.1.16)
compositions (2075)	distsource%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	distsource%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	distsource%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	distsource%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	distsource%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	distsource%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	distsource%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	distsource%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	distsource%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	distsource%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	distsource%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	distsource%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	distsource%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	distsource%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	distsource%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	distsource%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	distsource%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)

neutralscomp (2148)	distsource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	distsource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	distsource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	distsource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	distsource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	distsource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	distsource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	distsource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	distsource%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	distsource%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	distsource%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	distsource%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	distsource%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	distsource%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	distsource%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	distsource%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	distsource%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	distsource%compositions%signature%description (string) (7.9.4.1.4)
source (2075)	distsource%source(:) (distsource_source) (7.9.4.1.172)
source_id (2216)	distsource%source(:)%source_id(:) (enum_instance) (7.9.4.1.189)
type (2233)	distsource%source(:)%source_id(:)%type (identifier) (7.9.4.1.230)
id (2274)	distsource%source(:)%source_id(:)%type%id (string) (7.9.4.1.4)
flag (2274)	distsource%source(:)%source_id(:)%type%flag (integer) (7.9.4.1.3)
description (2274)	distsource%source(:)%source_id(:)%type%description (string) (7.9.4.1.4)
name (2233)	distsource%source(:)%source_id(:)%name (string) (7.9.4.1.4)
index (2233)	distsource%source(:)%source_id(:)%index (integer) (7.9.4.1.3)
src_spec (2216)	distsource%source(:)%src_spec (integer) (7.9.4.1.3)
gyro_type (2216)	distsource%source(:)%gyro_type (integer) (7.9.4.1.3)
global_param (2216)	distsource%source(:)%global_param (distsource_global_param) (7.9.4.1.168)
src_pow (2212)	distsource%source(:)%global_param%src_pow (exp0D) (7.9.4.1.196)
value (2240)	distsource%source(:)%global_param%src_pow%value (float) (7.9.4.1.2)
abserror (2240)	distsource%source(:)%global_param%src_pow%abserror (float) (7.9.4.1.2)
relerror (2240)	distsource%source(:)%global_param%src_pow%relerror (float) (7.9.4.1.2)
src_rate (2212)	distsource%source(:)%global_param%src_rate (exp0D) (7.9.4.1.196)
value (2240)	distsource%source(:)%global_param%src_rate%value (float) (7.9.4.1.2)
abserror (2240)	distsource%source(:)%global_param%src_rate%abserror (float) (7.9.4.1.2)
relerror (2240)	distsource%source(:)%global_param%src_rate%relerror (float) (7.9.4.1.2)
profiles_1d (2216)	distsource%source(:)%profiles_1d (distsource_profiles_1d) (7.9.4.1.170)
rho_tor_norm (2214)	distsource%source(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2214)	distsource%source(:)%profiles_1d%rho_tor (vecflt_type) (7.9.4.1.14)
psi (2214)	distsource%source(:)%profiles_1d%psi (vecflt_type) (7.9.4.1.14)
pow_den (2214)	distsource%source(:)%profiles_1d%pow_den (exp1D) (7.9.4.1.197)
value (2241)	distsource%source(:)%profiles_1d%pow_den%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	distsource%source(:)%profiles_1d%pow_den%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	distsource%source(:)%profiles_1d%pow_den%relerror (vecflt_type) (7.9.4.1.14)
src_rate (2214)	distsource%source(:)%profiles_1d%src_rate (exp1D) (7.9.4.1.197)
value (2241)	distsource%source(:)%profiles_1d%src_rate%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	distsource%source(:)%profiles_1d%src_rate%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	distsource%source(:)%profiles_1d%src_rate%relerror (vecflt_type) (7.9.4.1.14)
profiles_2d (2216)	distsource%source(:)%profiles_2d (distsource_profiles_2d) (7.9.4.1.171)
grid_coord (2215)	distsource%source(:)%profiles_2d%grid_coord (vecint_type) (7.9.4.1.15)
dim1 (2215)	distsource%source(:)%profiles_2d%dim1 (matflt_type) (7.9.4.1.12)
dim2 (2215)	distsource%source(:)%profiles_2d%dim2 (matflt_type) (7.9.4.1.12)
g11 (2215)	distsource%source(:)%profiles_2d%g11 (matflt_type) (7.9.4.1.12)
g12 (2215)	distsource%source(:)%profiles_2d%g12 (matflt_type) (7.9.4.1.12)
g21 (2215)	distsource%source(:)%profiles_2d%g21 (matflt_type) (7.9.4.1.12)
g22 (2215)	distsource%source(:)%profiles_2d%g22 (matflt_type) (7.9.4.1.12)
pow_den (2215)	distsource%source(:)%profiles_2d%pow_den (exp2D) (7.9.4.1.198)
value (2242)	distsource%source(:)%profiles_2d%pow_den%value (matflt_type) (7.9.4.1.12)
abserror (2242)	distsource%source(:)%profiles_2d%pow_den%abserror (matflt_type) (7.9.4.1.12)
relerror (2242)	distsource%source(:)%profiles_2d%pow_den%relerror (matflt_type) (7.9.4.1.12)

src_rate (2215)	distsource%source(:)%profiles_2d%src_rate (exp2D) (7.9.4.1.198)
value (2242)	distsource%source(:)%profiles_2d%src_rate%value (matflt_type) (7.9.4.1.12)
abserror (2242)	distsource%source(:)%profiles_2d%src_rate%abserror (matflt_type) (7.9.4.1.12)
relerror (2242)	distsource%source(:)%profiles_2d%src_rate%relerror (matflt_type) (7.9.4.1.12)
line_srcprof (2216)	distsource%source(:)%line_srcprof(:) (distsource_line_src_prof) (7.9.4.1.169)
rho_tor (2213)	distsource%source(:)%line_srcprof(:)%rho_tor (vecflt_type) (7.9.4.1.14)
rho_tor_norm (2213)	distsource%source(:)%line_srcprof(:)%rho_tor_norm (vecflt_type) (7.9.4.1.14)
psi (2213)	distsource%source(:)%line_srcprof(:)%psi (vecflt_type) (7.9.4.1.14)
R (2213)	distsource%source(:)%line_srcprof(:)%R (vecflt_type) (7.9.4.1.14)
Z (2213)	distsource%source(:)%line_srcprof(:)%Z (vecflt_type) (7.9.4.1.14)
theta (2213)	distsource%source(:)%line_srcprof(:)%theta (vecflt_type) (7.9.4.1.14)
theta_id (2213)	distsource%source(:)%line_srcprof(:)%theta_id (vecflt_type) (7.9.4.1.14)
th2th_pol (2213)	distsource%source(:)%line_srcprof(:)%th2th_pol (matflt_type) (7.9.4.1.12)
pitch (2213)	distsource%source(:)%line_srcprof(:)%pitch (vecflt_type) (7.9.4.1.14)
energy (2213)	distsource%source(:)%line_srcprof(:)%energy (vecflt_type) (7.9.4.1.14)
ang_momentum (2213)	distsource%source(:)%line_srcprof(:)%ang_momentum (vecflt_type) (7.9.4.1.14)
src_rate (2213)	distsource%source(:)%line_srcprof(:)%src_rate (vecflt_type) (7.9.4.1.14)
source_rate (2216)	distsource%source(:)%source_rate (source_rate) (7.9.4.1.381)
grid (2425)	distsource%source(:)%source_rate%grid (complexgrid) (7.9.4.1.87)
uid (2131)	distsource%source(:)%source_rate%grid%uid (integer) (7.9.4.1.3)
id (2131)	distsource%source(:)%source_rate%grid%id (string) (7.9.4.1.4)
spaces (2131)	distsource%source(:)%source_rate%grid%spaces(:) (complexgrid_space) (7.9.4.1.96)
geotype (2140)	distsource%source(:)%source_rate%grid%spaces(:)%geotype (vecint_type) (7.9.4.1.15)
geotypeid (2140)	distsource%source(:)%source_rate%grid%spaces(:)%geotypeid (vecstring_type) (7.9.4.1.16)
coordtype (2140)	distsource%source(:)%source_rate%grid%spaces(:)%coordtype (matint_type) (7.9.4.1.13)
objects (2140)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:) (objects) (7.9.4.1.276)
boundary (2320)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.4.1.13)
neighbour (2320)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.4.1.7)
geo (2320)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.4.1.8)
measure (2320)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.4.1.12)
xpoints (2140)	distsource%source(:)%source_rate%grid%spaces(:)%xpoints (vecint_type) (7.9.4.1.15)
subgrids (2131)	distsource%source(:)%source_rate%grid%subgrids(:) (complexgrid_subgrid) (7.9.4.1.97)
id (2141)	distsource%source(:)%source_rate%grid%subgrids(:)%id (string) (7.9.4.1.4)
list (2141)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.4.1.91)
cls (2135)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.4.1.15)
indset (2135)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.4.1.89)
range (2133)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.4.1.15)
ind (2133)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.4.1.15)
ind (2135)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.4.1.13)
metric (2131)	distsource%source(:)%source_rate%grid%metric (complexgrid_metric) (7.9.4.1.90)
measure (2134)	distsource%source(:)%source_rate%grid%metric%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
g11 (2134)	distsource%source(:)%source_rate%grid%metric%g11(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g11(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g11(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%g11(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g11(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.4.1.6)
g12 (2134)	distsource%source(:)%source_rate%grid%metric%g12(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g12(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g12(:)%subgrid (integer) (7.9.4.1.3)

scalar (2136)	distsource%source(:)%source_rate%grid%metric%g12(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g12(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.4.1.6)
g13 (2134)	distsource%source(:)%source_rate%grid%metric%g13(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g13(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g13(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%g13(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g13(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.4.1.6)
g22 (2134)	distsource%source(:)%source_rate%grid%metric%g22(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g22(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g22(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%g22(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g22(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.4.1.6)
g23 (2134)	distsource%source(:)%source_rate%grid%metric%g23(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g23(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g23(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%g23(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g23(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.4.1.6)
g33 (2134)	distsource%source(:)%source_rate%grid%metric%g33(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%g33(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%g33(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%g33(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%g33(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.4.1.6)
jacobian (2134)	distsource%source(:)%source_rate%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.4.1.6)
geo (2131)	distsource%source(:)%source_rate%grid%geo(:) (complexgrid_geo_global) (7.9.4.1.88)
geotype (2132)	distsource%source(:)%source_rate%grid%geo(:)%geotype (integer) (7.9.4.1.3)
geotypeid (2132)	distsource%source(:)%source_rate%grid%geo(:)%geotypeid (string) (7.9.4.1.4)
coordtype (2132)	distsource%source(:)%source_rate%grid%geo(:)%coordtype (vecint_type) (7.9.4.1.15)
geo_matrix (2132)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.4.1.6)
measure (2132)	distsource%source(:)%source_rate%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
bases (2131)	distsource%source(:)%source_rate%grid%bases(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	distsource%source(:)%source_rate%grid%bases(:)%griduid (integer) (7.9.4.1.3)
label (2142)	distsource%source(:)%source_rate%grid%bases(:)%label (string) (7.9.4.1.4)
comp (2142)	distsource%source(:)%source_rate%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)

matrix (2136)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	distsource%source(:)%source_rate%grid%bases(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	distsource%source(:)%source_rate%grid%bases(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	distsource%source(:)%source_rate%grid%bases(:)%basis (integer) (7.9.4.1.3)
value (2425)	distsource%source(:)%source_rate%value (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	distsource%source(:)%source_rate%value%griduid (integer) (7.9.4.1.3)
subgrid (2136)	distsource%source(:)%source_rate%value%subgrid (integer) (7.9.4.1.3)
scalar (2136)	distsource%source(:)%source_rate%value%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	distsource%source(:)%source_rate%value%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	distsource%source(:)%source_rate%value%matrix (array3dflt_type) (7.9.4.1.6)
source_grid (2216)	distsource%source(:)%source_grid (source_on_grid) (7.9.4.1.380)
grid_info (2424)	distsource%source(:)%source_grid%grid_info (grid_info) (7.9.4.1.226)
grid_type (2270)	distsource%source(:)%source_grid%grid_info%grid_type (integer) (7.9.4.1.3)
ngriddim (2270)	distsource%source(:)%source_grid%grid_info%ngriddim (integer) (7.9.4.1.3)
grid_coord (2270)	distsource%source(:)%source_grid%grid_info%grid_coord (vecint_type) (7.9.4.1.15)
discrete_dims (2270)	distsource%source(:)%source_grid%grid_info%discrete_dims (vecint_type) (7.9.4.1.15)
dim1 (2424)	distsource%source(:)%source_grid%dim1 (array6dflt_type) (7.9.4.1.10)
dim2 (2424)	distsource%source(:)%source_grid%dim2 (array6dflt_type) (7.9.4.1.10)
dim3 (2424)	distsource%source(:)%source_grid%dim3 (array6dflt_type) (7.9.4.1.10)
dim4 (2424)	distsource%source(:)%source_grid%dim4 (array6dflt_type) (7.9.4.1.10)
dim5 (2424)	distsource%source(:)%source_grid%dim5 (array6dflt_type) (7.9.4.1.10)
dim6 (2424)	distsource%source(:)%source_grid%dim6 (array6dflt_type) (7.9.4.1.10)
jacobian (2424)	distsource%source(:)%source_grid%jacobian (array6dflt_type) (7.9.4.1.10)
source (2424)	distsource%source(:)%source_grid%source (array6dflt_type) (7.9.4.1.10)
markers (2216)	distsource%source(:)%markers (weighted_markers) (7.9.4.1.442)
variable_ids (2486)	distsource%source(:)%markers%variable_ids(:) (identifier) (7.9.4.1.230)
id (2274)	distsource%source(:)%markers%variable_ids(:)%id (string) (7.9.4.1.4)
flag (2274)	distsource%source(:)%markers%variable_ids(:)%flag (integer) (7.9.4.1.3)
description (2274)	distsource%source(:)%markers%variable_ids(:)%description (string) (7.9.4.1.4)
coord (2486)	distsource%source(:)%markers%coord (matflt_type) (7.9.4.1.12)
weight (2486)	distsource%source(:)%markers%weight (vecflt_type) (7.9.4.1.14)
codeparam (2216)	distsource%source(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	distsource%source(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	distsource%source(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	distsource%source(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	distsource%source(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	distsource%source(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2075)	distsource%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	distsource%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	distsource%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	distsource%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	distsource%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	distsource%codeparam%output_flag (integer) (7.9.4.1.3)
time (2075)	distsource%time (float) (7.9.4.1.2)

7.9.4.2.14 ecediag

datainfo (2076)	ecediag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	ecediag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	ecediag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	ecediag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	ecediag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	ecediag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	ecediag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	ecediag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	ecediag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	ecediag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	ecediag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	ecediag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	ecediag%datainfo%whatref%run (integer) (7.9.4.1.3)

occurrence (2487)	ecediag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	ecediag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	ecediag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	ecediag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	ecediag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	ecediag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2076)	ecediag%setup (ecesetup) (7.9.4.1.176)
frequency (2220)	ecediag%setup%frequency (vecflt_type) (7.9.4.1.14)
harmonic (2220)	ecediag%setup%harmonic (vecstring_type) (7.9.4.1.16)
position (2220)	ecediag%setup%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	ecediag%setup%position%r (exp1D) (7.9.4.1.197)
value (2241)	ecediag%setup%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ecediag%setup%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ecediag%setup%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	ecediag%setup%position%z (exp1D) (7.9.4.1.197)
value (2241)	ecediag%setup%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ecediag%setup%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ecediag%setup%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	ecediag%setup%position%phi (exp1D) (7.9.4.1.197)
value (2241)	ecediag%setup%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ecediag%setup%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ecediag%setup%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2076)	ecediag%measure (ecemeasure) (7.9.4.1.175)
te (2219)	ecediag%measure%te (exp1D) (7.9.4.1.197)
value (2241)	ecediag%measure%te%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ecediag%measure%te%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ecediag%measure%te%relerror (vecflt_type) (7.9.4.1.14)
time (2076)	ecediag%time (float) (7.9.4.1.2)

7.9.4.2.15 edge

datainfo (2077)	edge%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	edge%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	edge%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	edge%datainfo%source (string) (7.9.4.1.4)
comment (2181)	edge%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	edge%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	edge%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	edge%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	edge%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	edge%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	edge%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	edge%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	edge%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	edge%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	edge%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	edge%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	edge%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	edge%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	edge%datainfo%putinfo%rights (string) (7.9.4.1.4)
grid (2077)	edge%grid (complexgrid) (7.9.4.1.87)
uid (2131)	edge%grid%uid (integer) (7.9.4.1.3)
id (2131)	edge%grid%id (string) (7.9.4.1.4)
spaces (2131)	edge%grid%spaces(:) (complexgrid_space) (7.9.4.1.96)
geotype (2140)	edge%grid%spaces(:)%geotype (vecint_type) (7.9.4.1.15)
geotypeid (2140)	edge%grid%spaces(:)%geotypeid (vecstring_type) (7.9.4.1.16)
coordtype (2140)	edge%grid%spaces(:)%coordtype (matint_type) (7.9.4.1.13)
objects (2140)	edge%grid%spaces(:)%objects(:) (objects) (7.9.4.1.276)
boundary (2320)	edge%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.4.1.13)
neighbour (2320)	edge%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.4.1.7)
geo (2320)	edge%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.4.1.8)

measure (2320)	edge%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.4.1.12)
xpoints (2140)	edge%grid%spaces(:)%xpoints (vecint_type) (7.9.4.1.15)
subgrids (2131)	edge%grid%subgrids(:) (complexgrid_subgrid) (7.9.4.1.97)
id (2141)	edge%grid%subgrids(:)%id (string) (7.9.4.1.4)
list (2141)	edge%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.4.1.91)
cls (2135)	edge%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.4.1.15)
indset (2135)	edge%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.4.1.89)
range (2133)	edge%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.4.1.15)
ind (2133)	edge%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.4.1.15)
ind (2135)	edge%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.4.1.13)
metric (2131)	edge%grid%metric (complexgrid_metric) (7.9.4.1.90)
measure (2134)	edge%grid%metric%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
g11 (2134)	edge%grid%metric%g11(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g11(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g11(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g11(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g11(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.4.1.6)
g12 (2134)	edge%grid%metric%g12(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g12(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g12(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g12(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g12(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.4.1.6)
g13 (2134)	edge%grid%metric%g13(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g13(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g13(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g13(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g13(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.4.1.6)
g22 (2134)	edge%grid%metric%g22(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g22(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g22(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g22(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g22(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.4.1.6)
g23 (2134)	edge%grid%metric%g23(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g23(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g23(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g23(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g23(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.4.1.6)
g33 (2134)	edge%grid%metric%g33(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%g33(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%g33(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%g33(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%g33(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.4.1.6)
jacobian (2134)	edge%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%metric%jacobian(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%metric%jacobian(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%metric%jacobian(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.4.1.6)
geo (2131)	edge%grid%geo(:) (complexgrid_geo_global) (7.9.4.1.88)
geotype (2132)	edge%grid%geo(:)%geotype (integer) (7.9.4.1.3)

geotypeid (2132)	edge%grid%geo(:)%geotypeid (string) (7.9.4.1.4)
coordtype (2132)	edge%grid%geo(:)%coordtype (vecint_type) (7.9.4.1.15)
geo_matrix (2132)	edge%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.4.1.6)
measure (2132)	edge%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%geo(:)%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%geo(:)%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
bases (2131)	edge%grid%bases(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%grid%bases(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%grid%bases(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%grid%bases(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%grid%bases(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%grid%bases(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%grid%bases(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%grid%bases(:)%basis (integer) (7.9.4.1.3)
species (2077)	edge%species(:) (species_desc) (7.9.4.1.387)
label (2431)	edge%species(:)%label (string) (7.9.4.1.4)
amn (2431)	edge%species(:)%amn (float) (7.9.4.1.2)
zn (2431)	edge%species(:)%zn (float) (7.9.4.1.2)
zmin (2431)	edge%species(:)%zmin (float) (7.9.4.1.2)
zmax (2431)	edge%species(:)%zmax (float) (7.9.4.1.2)
compositions (2077)	edge%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	edge%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	edge%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	edge%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	edge%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	edge%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	edge%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	edge%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	edge%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	edge%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	edge%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	edge%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	edge%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	edge%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	edge%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	edge%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	edge%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	edge%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	edge%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	edge%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	edge%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	edge%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	edge%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	edge%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	edge%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	edge%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	edge%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	edge%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	edge%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)

zmax (2230)	edge%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	edge%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	edge%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	edge%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	edge%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	edge%compositions%signature%description (string) (7.9.4.1.4)
fluid (2077)	edge%fluid (edge_fluid) (7.9.4.1.177)
ne (2221)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.4.1.179)
value (2223)	edge%fluid%ne%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2223)	edge%fluid%ne%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2223)	edge%fluid%ne%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ne%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ne%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ne%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ne%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ne%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ne%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2223)	edge%fluid%ne%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ne%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ne%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ne%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ne%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ne%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ne%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2223)	edge%fluid%ne%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%ne%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ne%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ne%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ne%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ne%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%ne%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ne%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ne%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)

vector (2136)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ne%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ne%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2223)	edge%fluid%ne%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ne%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ne%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ne%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ne%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ne%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
ni (2221)	edge%fluid%ni(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%ni(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%ni(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%ni(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ni(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ni(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ni(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ni(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ni(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ni(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%ni(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ni(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ni(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ni(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ni(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ni(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ni(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%ni(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%ni(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ni(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ni(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ni(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%ni(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ni(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)

griduid (2136)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ni(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ni(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%ni(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ni(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ni(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ni(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ni(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ni(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
ve (2221)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.4.1.182)
griduid (2226)	edge%fluid%ve%griduid (integer) (7.9.4.1.3)
basis (2226)	edge%fluid%ve%basis (integer) (7.9.4.1.3)
comps (2226)	edge%fluid%ve%comps(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%ve%comps(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%ve%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%ve%comps(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ve%comps(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ve%comps(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ve%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ve%comps(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ve%comps(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ve%comps(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%ve%comps(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ve%comps(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ve%comps(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ve%comps(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ve%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ve%comps(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%ve%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%ve%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)

matrix (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%ve%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%ve%comps(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ve%comps(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ve%comps(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ve%comps(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ve%comps(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ve%comps(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2226)	edge%fluid%ve%align (vecint_type) (7.9.4.1.15)
alignid (2226)	edge%fluid%ve%alignid (vecstring_type) (7.9.4.1.16)
vi (2221)	edge%fluid%vi(:) (edge_fluid_vector) (7.9.4.1.181)
griduid (2225)	edge%fluid%vi(:)%griduid (integer) (7.9.4.1.3)
basis (2225)	edge%fluid%vi(:)%basis (integer) (7.9.4.1.3)
align (2225)	edge%fluid%vi(:)%align (vecint_type) (7.9.4.1.15)
alignid (2225)	edge%fluid%vi(:)%alignid (vecstring_type) (7.9.4.1.16)
comps (2225)	edge%fluid%vi(:)%comps(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%vi(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%vi(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%vi(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%vi(:)%comps(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%vi(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)

alignid (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%vi(:)%comps(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%vi(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%vi(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%vi(:)%comps(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%vi(:)%comps(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%vi(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%vi(:)%comps(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%vi(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
te (2221)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.4.1.179)
value (2223)	edge%fluid%te%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2223)	edge%fluid%te%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2223)	edge%fluid%te%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%te%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%te%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%te%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%te%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%te%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%te%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2223)	edge%fluid%te%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%te%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%te%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%te%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)

vector (2136)	edge%fluid%te%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%te%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%te%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%te%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2223)	edge%fluid%te%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%te%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%te%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%te%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%te%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%te%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%te%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%te%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%te%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%te%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%te%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2223)	edge%fluid%te%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
ti (2221)	edge%fluid%ti(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%ti(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%ti(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%ti(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ti(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ti(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ti(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ti(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ti(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ti(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%ti(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ti(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ti(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ti(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)

griduid (2136)	edge%fluid%ti(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ti(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ti(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ti(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%ti(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%ti(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ti(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ti(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ti(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%ti(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ti(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ti(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ti(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%ti(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
te_aniso (2221)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.4.1.182)
griduid (2226)	edge%fluid%te_aniso%griduid (integer) (7.9.4.1.3)
basis (2226)	edge%fluid%te_aniso%basis (integer) (7.9.4.1.3)
comps (2226)	edge%fluid%te_aniso%comps(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%te_aniso%comps(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%te_aniso%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%te_aniso%comps(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%align (vecint_type) (7.9.4.1.15)

alignid (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%te_aniso%comps(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%te_aniso%comps(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%te_aniso%comps(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%te_aniso%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%te_aniso%comps(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%te_aniso%comps(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%te_aniso%comps(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%te_aniso%comps(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%te_aniso%comps(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%te_aniso%comps(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2226)	edge%fluid%te_aniso%align (vecint_type) (7.9.4.1.15)
alignid (2226)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.4.1.16)
ti_aniso (2221)	edge%fluid%ti_aniso(:) (edge_fluid_vector) (7.9.4.1.181)
griduid (2225)	edge%fluid%ti_aniso(:)%griduid (integer) (7.9.4.1.3)
basis (2225)	edge%fluid%ti_aniso(:)%basis (integer) (7.9.4.1.3)
align (2225)	edge%fluid%ti_aniso(:)%align (vecint_type) (7.9.4.1.15)
alignid (2225)	edge%fluid%ti_aniso(:)%alignid (vecstring_type) (7.9.4.1.16)
comps (2225)	edge%fluid%ti_aniso(:)%comps(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%ti_aniso(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)

vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%ti_aniso(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2222)	edge%fluid%ti_aniso(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
po (2221)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.4.1.179)
value (2223)	edge%fluid%po%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%value(:)%griduid (integer) (7.9.4.1.3)

subgrid (2136)	edge%fluid%po%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2223)	edge%fluid%po%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2223)	edge%fluid%po%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%po%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%po%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%po%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%po%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%po%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%po%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2223)	edge%fluid%po%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%po%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%po%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%po%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%po%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%po%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%po%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2223)	edge%fluid%po%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%po%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%po%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%po%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%po%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%po%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%po%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%po%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%po%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%po%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%po%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)
source (2223)	edge%fluid%po%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%po%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%po%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%po%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%po%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%po%source(:)%matrix (array3dflt_type) (7.9.4.1.6)

j (2221)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.4.1.182)
griduid (2226)	edge%fluid%j%griduid (integer) (7.9.4.1.3)
basis (2226)	edge%fluid%j%basis (integer) (7.9.4.1.3)
comps (2226)	edge%fluid%j%comps(:) (edge_fluid_scalar) (7.9.4.1.178)
value (2222)	edge%fluid%j%comps(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2222)	edge%fluid%j%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
flux (2222)	edge%fluid%j%comps(:)%flux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%j%comps(:)%flux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%j%comps(:)%flux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%j%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%j%comps(:)%flux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%j%comps(:)%flux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%j%comps(:)%flux(:)%basis (integer) (7.9.4.1.3)
bndflux (2222)	edge%fluid%j%comps(:)%bndflux(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%j%comps(:)%bndflux(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%j%comps(:)%bndflux(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%j%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%j%comps(:)%bndflux(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%j%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%j%comps(:)%bndflux(:)%basis (integer) (7.9.4.1.3)
transpcoeff (2222)	edge%fluid%j%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.4.1.180)
d (2224)	edge%fluid%j%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%d%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.4.1.16)
v (2224)	edge%fluid%j%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%v%label (string) (7.9.4.1.4)
comp (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.4.1.15)
alignid (2143)	edge%fluid%j%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.4.1.16)

source (2222)	edge%fluid%j%comps(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%j%comps(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%j%comps(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%j%comps(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%j%comps(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%j%comps(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2226)	edge%fluid%j%align (vecint_type) (7.9.4.1.15)
alignid (2226)	edge%fluid%j%alignid (vecstring_type) (7.9.4.1.16)
b (2221)	edge%fluid%b(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%fluid%b(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%fluid%b(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%fluid%b(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%fluid%b(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%fluid%b(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%fluid%b(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%fluid%b(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%fluid%b(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%fluid%b(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%fluid%b(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%fluid%b(:)%basis (integer) (7.9.4.1.3)
kinetic (2077)	edge%kinetic (edge_kinetic) (7.9.4.1.183)
f (2227)	edge%kinetic%f(:) (edge_kinetic_distribution) (7.9.4.1.184)
value (2228)	edge%kinetic%f(:)%value(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%kinetic%f(:)%value(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%kinetic%f(:)%value(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%kinetic%f(:)%value(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%kinetic%f(:)%value(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%kinetic%f(:)%value(:)%matrix (array3dflt_type) (7.9.4.1.6)
bndvalue (2228)	edge%kinetic%f(:)%bndvalue(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%kinetic%f(:)%bndvalue(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%kinetic%f(:)%bndvalue(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%kinetic%f(:)%bndvalue(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%kinetic%f(:)%bndvalue(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%kinetic%f(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.4.1.6)
fluxes (2228)	edge%kinetic%f(:)%fluxes(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	edge%kinetic%f(:)%fluxes(:)%griduid (integer) (7.9.4.1.3)
label (2142)	edge%kinetic%f(:)%fluxes(:)%label (string) (7.9.4.1.4)
comp (2142)	edge%kinetic%f(:)%fluxes(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%kinetic%f(:)%fluxes(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%kinetic%f(:)%fluxes(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%kinetic%f(:)%fluxes(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%kinetic%f(:)%fluxes(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%kinetic%f(:)%fluxes(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	edge%kinetic%f(:)%fluxes(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	edge%kinetic%f(:)%fluxes(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	edge%kinetic%f(:)%fluxes(:)%basis (integer) (7.9.4.1.3)
source (2228)	edge%kinetic%f(:)%source(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	edge%kinetic%f(:)%source(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	edge%kinetic%f(:)%source(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	edge%kinetic%f(:)%source(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	edge%kinetic%f(:)%source(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	edge%kinetic%f(:)%source(:)%matrix (array3dflt_type) (7.9.4.1.6)
codeparam (2077)	edge%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	edge%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	edge%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	edge%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	edge%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	edge%codeparam%output_flag (integer) (7.9.4.1.3)
time (2077)	edge%time (float) (7.9.4.1.2)

7.9.4.2.16 efcc

datainfo (2078)	efcc%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	efcc%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	efcc%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	efcc%datainfo%source (string) (7.9.4.1.4)
comment (2181)	efcc%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	efcc%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	efcc%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	efcc%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	efcc%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	efcc%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	efcc%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	efcc%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	efcc%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	efcc%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	efcc%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	efcc%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	efcc%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	efcc%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	efcc%datainfo%putinfo%rights (string) (7.9.4.1.4)
coil (2078)	efcc%coil(:) (coil) (7.9.4.1.85)
desc_coils (2129)	efcc%coil(:)%desc_coils (desc_coils) (7.9.4.1.139)
name (2183)	efcc%coil(:)%desc_coils%name (string) (7.9.4.1.4)
res (2183)	efcc%coil(:)%desc_coils%res (float) (7.9.4.1.2)
nturns (2183)	efcc%coil(:)%desc_coils%nturns (integer) (7.9.4.1.3)
closed (2183)	efcc%coil(:)%desc_coils%closed (string) (7.9.4.1.4)
edges (2183)	efcc%coil(:)%desc_coils%edges(:) (edges) (7.9.4.1.185)
edge_rzphi (2229)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi (rzphi1D) (7.9.4.1.342)
r (2386)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%r (vecflt_type) (7.9.4.1.14)
z (2386)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%z (vecflt_type) (7.9.4.1.14)
phi (2386)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%phi (vecflt_type) (7.9.4.1.14)
coilcurrent (2129)	efcc%coil(:)%coilcurrent (exp1D) (7.9.4.1.197)
value (2241)	efcc%coil(:)%coilcurrent%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	efcc%coil(:)%coilcurrent%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	efcc%coil(:)%coilcurrent%relerror (vecflt_type) (7.9.4.1.14)
coilvoltage (2129)	efcc%coil(:)%coilvoltage (exp1D) (7.9.4.1.197)
value (2241)	efcc%coil(:)%coilvoltage%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	efcc%coil(:)%coilvoltage%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	efcc%coil(:)%coilvoltage%relerror (vecflt_type) (7.9.4.1.14)
time (2078)	efcc%time (float) (7.9.4.1.2)
codeparam (2078)	efcc%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	efcc%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	efcc%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	efcc%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	efcc%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	efcc%codeparam%output_flag (integer) (7.9.4.1.3)

7.9.4.2.17 equilibrium

datainfo (2079)	equilibrium%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	equilibrium%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	equilibrium%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	equilibrium%datainfo%source (string) (7.9.4.1.4)
comment (2181)	equilibrium%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	equilibrium%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	equilibrium%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	equilibrium%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	equilibrium%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	equilibrium%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	equilibrium%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	equilibrium%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	equilibrium%datainfo%whatref%run (integer) (7.9.4.1.3)

occurrence (2487)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	equilibrium%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	equilibrium%datainfo%putinfo%rights (string) (7.9.4.1.4)
eqconstraint (2079)	equilibrium%eqconstraint (eqconstraint) (7.9.4.1.190)
bpol (2234)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%bpol%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%bpol%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.4.1.14)
bvac_r (2234)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.4.1.192)
measured (2236)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.4.1.2)
source (2236)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.4.1.4)
time (2236)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.4.1.2)
exact (2236)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.4.1.3)
weight (2236)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.4.1.2)
sigma (2236)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.4.1.2)
calculated (2236)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.4.1.2)
chi2 (2236)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.4.1.2)
diamagflux (2234)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.4.1.192)
measured (2236)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.4.1.2)
source (2236)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.4.1.4)
time (2236)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.4.1.2)
exact (2236)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.4.1.3)
weight (2236)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.4.1.2)
sigma (2236)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.4.1.2)
calculated (2236)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.4.1.2)
chi2 (2236)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.4.1.2)
faraday (2234)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%faraday%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%faraday%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.4.1.14)
flux (2234)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%flux%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%flux%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.4.1.14)
i_plasma (2234)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.4.1.192)
measured (2236)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.4.1.2)
source (2236)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.4.1.4)
time (2236)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.4.1.2)
exact (2236)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.4.1.3)
weight (2236)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.4.1.2)
sigma (2236)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.4.1.2)
calculated (2236)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.4.1.2)
chi2 (2236)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.4.1.2)

isoflux (2234)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.4.1.236)
position (2280)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.4.1.336)
r (2380)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.4.1.14)
source (2280)	equilibrium%eqconstraint%isoflux%source (string) (7.9.4.1.4)
weight (2280)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.4.1.14)
sigma (2280)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.4.1.14)
calculated (2280)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2280)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.4.1.14)
jsurf (2234)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%jsurf%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%jsurf%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.4.1.14)
magnet_iron (2234)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.4.1.253)
mr (2297)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.4.1.14)
mz (2297)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.4.1.14)
mse (2234)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%mse%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%mse%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.4.1.14)
ne (2234)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%ne%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%ne%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.4.1.14)
pfcurrent (2234)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.4.1.14)

sigma (2237)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.4.1.14)
pressure (2234)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.4.1.193)
measured (2237)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.4.1.14)
source (2237)	equilibrium%eqconstraint%pressure%source (string) (7.9.4.1.4)
time (2237)	equilibrium%eqconstraint%pressure%time (float) (7.9.4.1.2)
exact (2237)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.4.1.15)
weight (2237)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.4.1.14)
sigma (2237)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.4.1.14)
calculated (2237)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2237)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.4.1.14)
q (2234)	equilibrium%eqconstraint%q (q) (7.9.4.1.307)
qvalue (2351)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.4.1.14)
position (2351)	equilibrium%eqconstraint%q%position (rz1D) (7.9.4.1.336)
r (2380)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.4.1.14)
source (2351)	equilibrium%eqconstraint%q%source (string) (7.9.4.1.4)
exact (2351)	equilibrium%eqconstraint%q%exact (integer) (7.9.4.1.3)
weight (2351)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.4.1.14)
sigma (2351)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.4.1.14)
calculated (2351)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2351)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.4.1.14)
xpts (2234)	equilibrium%eqconstraint%xpts (xpts) (7.9.4.1.445)
position (2489)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.4.1.336)
r (2380)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.4.1.14)
source (2489)	equilibrium%eqconstraint%xpts%source (string) (7.9.4.1.4)
weight (2489)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.4.1.14)
sigma (2489)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.4.1.14)
calculated (2489)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.4.1.14)
chi2 (2489)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.4.1.14)
eqgeometry (2079)	equilibrium%eqgeometry (eqgeometry) (7.9.4.1.191)
source (2235)	equilibrium%eqgeometry%source (string) (7.9.4.1.4)
boundarytype (2235)	equilibrium%eqgeometry%boundarytype (integer) (7.9.4.1.3)
boundary (2235)	equilibrium%eqgeometry%boundary(:) (rz1Dexp) (7.9.4.1.338)
r (2382)	equilibrium%eqgeometry%boundary(:)%r (vecflt_type) (7.9.4.1.14)
z (2382)	equilibrium%eqgeometry%boundary(:)%z (vecflt_type) (7.9.4.1.14)
geom_axis (2235)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.4.1.2)
z (2379)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.4.1.2)
a_minor (2235)	equilibrium%eqgeometry%a_minor (float) (7.9.4.1.2)
elongation (2235)	equilibrium%eqgeometry%elongation (float) (7.9.4.1.2)
elong_upper (2235)	equilibrium%eqgeometry%elong_upper (float) (7.9.4.1.2)
elong_lower (2235)	equilibrium%eqgeometry%elong_lower (float) (7.9.4.1.2)
tria_upper (2235)	equilibrium%eqgeometry%tria_upper (float) (7.9.4.1.2)
tria_lower (2235)	equilibrium%eqgeometry%tria_lower (float) (7.9.4.1.2)
xpts (2235)	equilibrium%eqgeometry%xpts(:) (rz1Dexp) (7.9.4.1.338)
r (2382)	equilibrium%eqgeometry%xpts(:)%r (vecflt_type) (7.9.4.1.14)
z (2382)	equilibrium%eqgeometry%xpts(:)%z (vecflt_type) (7.9.4.1.14)
left_low_st (2235)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.4.1.2)
z (2379)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.4.1.2)
right_low_st (2235)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.4.1.2)
z (2379)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.4.1.2)
left_up_st (2235)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.4.1.2)
z (2379)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.4.1.2)
right_up_st (2235)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.4.1.2)

z (2379)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.4.1.2)
active_limit (2235)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%eqgeometry%active_limit%r (float) (7.9.4.1.2)
z (2379)	equilibrium%eqgeometry%active_limit%z (float) (7.9.4.1.2)
ang_lcms_upo (2235)	equilibrium%eqgeometry%ang_lcms_upo (float) (7.9.4.1.2)
ang_lcms_upi (2235)	equilibrium%eqgeometry%ang_lcms_upi (float) (7.9.4.1.2)
ang_lcms_lwo (2235)	equilibrium%eqgeometry%ang_lcms_lwo (float) (7.9.4.1.2)
ang_lcms_lwi (2235)	equilibrium%eqgeometry%ang_lcms_lwi (float) (7.9.4.1.2)
flush (2079)	equilibrium%flush (flush) (7.9.4.1.201)
datainfo (2245)	equilibrium%flush%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	equilibrium%flush%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	equilibrium%flush%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	equilibrium%flush%datainfo%source (string) (7.9.4.1.4)
comment (2181)	equilibrium%flush%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	equilibrium%flush%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	equilibrium%flush%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	equilibrium%flush%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	equilibrium%flush%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	equilibrium%flush%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.4.1.4)
position (2245)	equilibrium%flush%position (rz1D) (7.9.4.1.336)
r (2380)	equilibrium%flush%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	equilibrium%flush%position%z (vecflt_type) (7.9.4.1.14)
coef (2245)	equilibrium%flush%coef (matflt_type) (7.9.4.1.12)
codeparam (2245)	equilibrium%flush%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	equilibrium%flush%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	equilibrium%flush%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	equilibrium%flush%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	equilibrium%flush%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	equilibrium%flush%codeparam%output_flag (integer) (7.9.4.1.3)
global_param (2079)	equilibrium%global_param (global_param) (7.9.4.1.224)
beta_pol (2268)	equilibrium%global_param%beta_pol (float) (7.9.4.1.2)
beta_tor (2268)	equilibrium%global_param%beta_tor (float) (7.9.4.1.2)
beta_normal (2268)	equilibrium%global_param%beta_normal (float) (7.9.4.1.2)
i_plasma (2268)	equilibrium%global_param%i_plasma (float) (7.9.4.1.2)
li (2268)	equilibrium%global_param%li (float) (7.9.4.1.2)
volume (2268)	equilibrium%global_param%volume (float) (7.9.4.1.2)
area (2268)	equilibrium%global_param%area (float) (7.9.4.1.2)
psi_ax (2268)	equilibrium%global_param%psi_ax (float) (7.9.4.1.2)
psi_bound (2268)	equilibrium%global_param%psi_bound (float) (7.9.4.1.2)
mag_axis (2268)	equilibrium%global_param%mag_axis (mag_axis) (7.9.4.1.252)
position (2296)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.4.1.335)
r (2379)	equilibrium%global_param%mag_axis%position%r (float) (7.9.4.1.2)
z (2379)	equilibrium%global_param%mag_axis%position%z (float) (7.9.4.1.2)
bphi (2296)	equilibrium%global_param%mag_axis%bphi (float) (7.9.4.1.2)
q (2296)	equilibrium%global_param%mag_axis%q (float) (7.9.4.1.2)
q_95 (2268)	equilibrium%global_param%q_95 (float) (7.9.4.1.2)
q_min (2268)	equilibrium%global_param%q_min (float) (7.9.4.1.2)
toroid_field (2268)	equilibrium%global_param%toroid_field (b0r0) (7.9.4.1.72)
r0 (2116)	equilibrium%global_param%toroid_field%r0 (float) (7.9.4.1.2)
b0 (2116)	equilibrium%global_param%toroid_field%b0 (float) (7.9.4.1.2)
w_mhd (2268)	equilibrium%global_param%w_mhd (float) (7.9.4.1.2)
gamma (2268)	equilibrium%global_param%gamma (float) (7.9.4.1.2)

profiles_1d (2079)	equilibrium%profiles_1d (profiles_1d) (7.9.4.1.304)
psi (2348)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.4.1.14)
phi (2348)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.4.1.14)
pressure (2348)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.4.1.14)
F_dia (2348)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.4.1.14)
pprime (2348)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.4.1.14)
ffprime (2348)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.4.1.14)
jphi (2348)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.4.1.14)
jparallel (2348)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.4.1.14)
q (2348)	equilibrium%profiles_1d%q (vecflt_type) (7.9.4.1.14)
r_inboard (2348)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.4.1.14)
r_outboard (2348)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.4.1.14)
rho_tor (2348)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.4.1.14)
dpsidrho_tor (2348)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.4.1.14)
rho_vol (2348)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.4.1.14)
beta_pol (2348)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.4.1.14)
li (2348)	equilibrium%profiles_1d%li (vecflt_type) (7.9.4.1.14)
elongation (2348)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.4.1.14)
tria_upper (2348)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.4.1.14)
tria_lower (2348)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.4.1.14)
volume (2348)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.4.1.14)
vprime (2348)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.4.1.14)
dvdrho (2348)	equilibrium%profiles_1d%dvdrho (vecflt_type) (7.9.4.1.14)
area (2348)	equilibrium%profiles_1d%area (vecflt_type) (7.9.4.1.14)
aprime (2348)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.4.1.14)
surface (2348)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.4.1.14)
ftrap (2348)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.4.1.14)
gm1 (2348)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.4.1.14)
gm2 (2348)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.4.1.14)
gm3 (2348)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.4.1.14)
gm4 (2348)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.4.1.14)
gm5 (2348)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.4.1.14)
gm6 (2348)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.4.1.14)
gm7 (2348)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.4.1.14)
gm8 (2348)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.4.1.14)
gm9 (2348)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.4.1.14)
b_av (2348)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.4.1.14)
b_min (2348)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.4.1.14)
b_max (2348)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.4.1.14)
omega (2348)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.4.1.14)
omegaprime (2348)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.4.1.14)
mach_a (2348)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.4.1.14)
phi_flow (2348)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.4.1.14)
s_flow (2348)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.4.1.14)
h_flow (2348)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.4.1.14)
profiles_2d (2079)	equilibrium%profiles_2d(:) (equilibrium_profiles_2d) (7.9.4.1.195)
grid_type (2239)	equilibrium%profiles_2d(:)%grid_type (vecstring_type) (7.9.4.1.16)
grid (2239)	equilibrium%profiles_2d(:)%grid (equilibrium_profiles2d_grid) (7.9.4.1.194)
dim1 (2238)	equilibrium%profiles_2d(:)%grid%dim1 (vecflt_type) (7.9.4.1.14)
dim2 (2238)	equilibrium%profiles_2d(:)%grid%dim2 (vecflt_type) (7.9.4.1.14)
connect (2238)	equilibrium%profiles_2d(:)%grid%connect (matint_type) (7.9.4.1.13)
r (2239)	equilibrium%profiles_2d(:)%r (matflt_type) (7.9.4.1.12)
z (2239)	equilibrium%profiles_2d(:)%z (matflt_type) (7.9.4.1.12)
psi (2239)	equilibrium%profiles_2d(:)%psi (matflt_type) (7.9.4.1.12)
theta (2239)	equilibrium%profiles_2d(:)%theta (matflt_type) (7.9.4.1.12)
phi (2239)	equilibrium%profiles_2d(:)%phi (matflt_type) (7.9.4.1.12)
jphi (2239)	equilibrium%profiles_2d(:)%jphi (matflt_type) (7.9.4.1.12)
jpar (2239)	equilibrium%profiles_2d(:)%jpar (matflt_type) (7.9.4.1.12)
br (2239)	equilibrium%profiles_2d(:)%br (matflt_type) (7.9.4.1.12)
bz (2239)	equilibrium%profiles_2d(:)%bz (matflt_type) (7.9.4.1.12)
bphi (2239)	equilibrium%profiles_2d(:)%bphi (matflt_type) (7.9.4.1.12)

vphi (2239)	equilibrium%profiles_2d(:)%vphi (matflt_type) (7.9.4.1.12)
vtheta (2239)	equilibrium%profiles_2d(:)%vtheta (matflt_type) (7.9.4.1.12)
rho_mass (2239)	equilibrium%profiles_2d(:)%rho_mass (matflt_type) (7.9.4.1.12)
pressure (2239)	equilibrium%profiles_2d(:)%pressure (matflt_type) (7.9.4.1.12)
temperature (2239)	equilibrium%profiles_2d(:)%temperature (matflt_type) (7.9.4.1.12)
coord_sys (2079)	equilibrium%coord_sys (coord_sys) (7.9.4.1.106)
grid_type (2150)	equilibrium%coord_sys%grid_type (string) (7.9.4.1.4)
grid (2150)	equilibrium%coord_sys%grid (reggrid) (7.9.4.1.331)
dim1 (2375)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.4.1.14)
dim2 (2375)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.4.1.14)
jacobian (2150)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.4.1.12)
g_11 (2150)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.4.1.12)
g_12 (2150)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.4.1.12)
g_13 (2150)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.4.1.12)
g_22 (2150)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.4.1.12)
g_23 (2150)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.4.1.12)
g_33 (2150)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.4.1.12)
position (2150)	equilibrium%coord_sys%position (rz2D) (7.9.4.1.339)
r (2383)	equilibrium%coord_sys%position%r (matflt_type) (7.9.4.1.12)
z (2383)	equilibrium%coord_sys%position%z (matflt_type) (7.9.4.1.12)
time (2079)	equilibrium%time (float) (7.9.4.1.2)
codeparam (2079)	equilibrium%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	equilibrium%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	equilibrium%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	equilibrium%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	equilibrium%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	equilibrium%codeparam%output_flag (integer) (7.9.4.1.3)

7.9.4.2.18 fusiondiag

datainfo (2080)	fusiondiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	fusiondiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	fusiondiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	fusiondiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	fusiondiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	fusiondiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	fusiondiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	fusiondiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	fusiondiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	fusiondiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	fusiondiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	fusiondiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	fusiondiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	fusiondiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	fusiondiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
fus_product (2080)	fusiondiag%fus_product(:) (fusiondiag_fus_product) (7.9.4.1.219)
product (2263)	fusiondiag%fus_product(:)%product (string) (7.9.4.1.4)
reaction (2263)	fusiondiag%fus_product(:)%reaction (string) (7.9.4.1.4)
collimator (2263)	fusiondiag%fus_product(:)%collimator (fusiondiag_collimator) (7.9.4.1.210)
colli_circ (2254)	fusiondiag%fus_product(:)%collimator%colli_circ(:) (fusiondiag_colli_circ) (7.9.4.1.208)
name (2252)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%name (string) (7.9.4.1.4)
setup_line (2252)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line (setup_line) (7.9.4.1.373)
pivot_point (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%z (vecflt_type) (7.9.4.1.14)

phi (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.4.1.14)
horchordang1 (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang1 (vecflt_type) (7.9.4.1.14)
verchordang1 (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang1 (vecflt_type) (7.9.4.1.14)
width (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%width (vecflt_type) (7.9.4.1.14)
second_point (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%phi (vecflt_type) (7.9.4.1.14)
horchordang2 (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang2 (vecflt_type) (7.9.4.1.14)
verchordang2 (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang2 (vecflt_type) (7.9.4.1.14)
third_point (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%phi (vecflt_type) (7.9.4.1.14)
nchordpoints (2417)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%nchordpoints (integer) (7.9.4.1.3)
colliunit (2252)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:) (fusiondiag_colliunit_circ) (7.9.4.1.211)
radius (2255)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%radius (vecflt_type) (7.9.4.1.14)
centre (2255)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%phi (vecflt_type) (7.9.4.1.14)
colli_poly (2254)	fusiondiag%fus_product(:)%collimator%colli_poly(:) (fusiondiag_colli_poly) (7.9.4.1.209)
name (2253)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%name (string) (7.9.4.1.4)
setup_line (2253)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line (setup_line) (7.9.4.1.373)
pivot_point (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.4.1.14)
horchordang1 (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang1 (vecflt_type) (7.9.4.1.14)
verchordang1 (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang1 (vecflt_type) (7.9.4.1.14)
width (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%width (vecflt_type) (7.9.4.1.14)
second_point (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point (rzphi1D) (7.9.4.1.342)
r (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%phi (vecflt_type) (7.9.4.1.14)
horchordang2 (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang2 (vecflt_type) (7.9.4.1.14)
verchordang2 (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang2 (vecflt_type) (7.9.4.1.14)
third_point (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point (rzphi1D) (7.9.4.1.342)

r (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%phi (vecflt_type) (7.9.4.1.14)
nchordpoints (2417)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%nchordpoints (integer) (7.9.4.1.3)
colliunit (2253)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:) (fusiondiag_colliunit_poly) (7.9.4.1.212)
dimension (2256)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%dimension (float) (7.9.4.1.2)
nodes (2256)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes (rzphi2D) (7.9.4.1.344)
r (2388)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%r (matflt_type) (7.9.4.1.12)
z (2388)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%z (matflt_type) (7.9.4.1.12)
phi (2388)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%phi (matflt_type) (7.9.4.1.12)
colli_3d (2254)	fusiondiag%fus_product(:)%collimator%colli_3d(:) (fusiondiag_colli_3d) (7.9.4.1.207)
name (2251)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%name (string) (7.9.4.1.4)
voxels (2251)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:) (fusiondiag_voxels) (7.9.4.1.222)
centre (2266)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre (rzphi0D) (7.9.4.1.341)
r (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%r (float) (7.9.4.1.2)
z (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%z (float) (7.9.4.1.2)
phi (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%phi (float) (7.9.4.1.2)
direction (2266)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction (rzphi0D) (7.9.4.1.341)
r (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%r (float) (7.9.4.1.2)
z (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%z (float) (7.9.4.1.2)
phi (2385)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%phi (float) (7.9.4.1.2)
volume (2266)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%volume (float) (7.9.4.1.2)
solid_angle (2266)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%solid_angle (float) (7.9.4.1.2)
counts (2263)	fusiondiag%fus_product(:)%counts (fusiondiag_counts) (7.9.4.1.213)
units (2257)	fusiondiag%fus_product(:)%counts%units (string) (7.9.4.1.4)
ct_chords (2257)	fusiondiag%fus_product(:)%counts%ct_chords(:) (fusiondiag_ct_chords) (7.9.4.1.214)
name (2258)	fusiondiag%fus_product(:)%counts%ct_chords(:)%name (vecstring_type) (7.9.4.1.16)
energy (2258)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy (exp0D) (7.9.4.1.196)
value (2240)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%value (float) (7.9.4.1.2)
abserror (2240)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%abserror (float) (7.9.4.1.2)
relerror (2240)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%relerror (float) (7.9.4.1.2)
measure (2258)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%relerror (vecflt_type) (7.9.4.1.14)
ct_energy (2257)	fusiondiag%fus_product(:)%counts%ct_energy(:) (fusiondiag_ct_energy) (7.9.4.1.215)
energy (2259)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%relerror (vecflt_type) (7.9.4.1.14)
measure (2259)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%relerror (vecflt_type) (7.9.4.1.14)
detect_ct (2257)	fusiondiag%fus_product(:)%counts%detect_ct(:) (fusiondiag_detect_ct_energy) (7.9.4.1.216)
energy (2260)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%relerror (vecflt_type) (7.9.4.1.14)
measure (2260)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%relerror (vecflt_type) (7.9.4.1.14)
diag_func (2260)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func (diag_func) (7.9.4.1.144)

description (2188)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%description (string) (7.9.4.1.4)
transf_mat (2188)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%transf_mat (matflt_type) (7.9.4.1.12)
emissivity1d (2263)	fusiondiag%fus_product(:)%emissivity1d (fusiondiag_emissivity1d) (7.9.4.1.217)
units (2261)	fusiondiag%fus_product(:)%emissivity1d%units (string) (7.9.4.1.4)
r (2261)	fusiondiag%fus_product(:)%emissivity1d%r (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%emissivity1d%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%emissivity1d%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%emissivity1d%r%relerror (vecflt_type) (7.9.4.1.14)
z (2261)	fusiondiag%fus_product(:)%emissivity1d%z (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%emissivity1d%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%emissivity1d%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%emissivity1d%z%relerror (vecflt_type) (7.9.4.1.14)
spec1d (2261)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:) (fusiondiag_spec1d) (7.9.4.1.220)
energy (2264)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy (exp0D) (7.9.4.1.196)
value (2240)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%value (float) (7.9.4.1.2)
abserror (2240)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%abserror (float) (7.9.4.1.2)
relerror (2240)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%relerror (float) (7.9.4.1.2)
measure (2264)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure (exp1D) (7.9.4.1.197)
value (2241)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%relerror (vecflt_type) (7.9.4.1.14)
emissivity2d (2263)	fusiondiag%fus_product(:)%emissivity2d (fusiondiag_emissivity2d) (7.9.4.1.218)
units (2262)	fusiondiag%fus_product(:)%emissivity2d%units (string) (7.9.4.1.4)
r (2262)	fusiondiag%fus_product(:)%emissivity2d%r (exp2D) (7.9.4.1.198)
value (2242)	fusiondiag%fus_product(:)%emissivity2d%r%value (matflt_type) (7.9.4.1.12)
abserror (2242)	fusiondiag%fus_product(:)%emissivity2d%r%abserror (matflt_type) (7.9.4.1.12)
relerror (2242)	fusiondiag%fus_product(:)%emissivity2d%r%relerror (matflt_type) (7.9.4.1.12)
z (2262)	fusiondiag%fus_product(:)%emissivity2d%z (exp2D) (7.9.4.1.198)
value (2242)	fusiondiag%fus_product(:)%emissivity2d%z%value (matflt_type) (7.9.4.1.12)
abserror (2242)	fusiondiag%fus_product(:)%emissivity2d%z%abserror (matflt_type) (7.9.4.1.12)
relerror (2242)	fusiondiag%fus_product(:)%emissivity2d%z%relerror (matflt_type) (7.9.4.1.12)
spec2d (2262)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:) (fusiondiag_spec2d) (7.9.4.1.221)
energy (2265)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy (exp0D) (7.9.4.1.196)
value (2240)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%value (float) (7.9.4.1.2)
abserror (2240)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%abserror (float) (7.9.4.1.2)
relerror (2240)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%relerror (float) (7.9.4.1.2)
measure (2265)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure (exp2D) (7.9.4.1.198)
value (2242)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%value (matflt_type) (7.9.4.1.12)
abserror (2242)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%abserror (matflt_type) (7.9.4.1.12)
relerror (2242)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%relerror (matflt_type) (7.9.4.1.12)
codeparam (2263)	fusiondiag%fus_product(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	fusiondiag%fus_product(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	fusiondiag%fus_product(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	fusiondiag%fus_product(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	fusiondiag%fus_product(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	fusiondiag%fus_product(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2080)	fusiondiag%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	fusiondiag%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	fusiondiag%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	fusiondiag%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	fusiondiag%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	fusiondiag%codeparam%output_flag (integer) (7.9.4.1.3)
time (2080)	fusiondiag%time (float) (7.9.4.1.2)

7.9.4.2.19 halphadiag

datainfo (2081)	halphadiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	halphadiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	halphadiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	halphadiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	halphadiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	halphadiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	halphadiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	halphadiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	halphadiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	halphadiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	halphadiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	halphadiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	halphadiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	halphadiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	halphadiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	halphadiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	halphadiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	halphadiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	halphadiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2081)	halphadiag%setup (halpha_setup) (7.9.4.1.228)
name (2272)	halphadiag%setup%name (vecstring_type) (7.9.4.1.16)
pivot_point (2272)	halphadiag%setup%pivot_point (rzphi1D) (7.9.4.1.342)
r (2386)	halphadiag%setup%pivot_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	halphadiag%setup%pivot_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	halphadiag%setup%pivot_point%phi (vecflt_type) (7.9.4.1.14)
horchordang (2272)	halphadiag%setup%horchordang (vecflt_type) (7.9.4.1.14)
verchordang (2272)	halphadiag%setup%verchordang (vecflt_type) (7.9.4.1.14)
second_point (2272)	halphadiag%setup%second_point (rzphi1D) (7.9.4.1.342)
r (2386)	halphadiag%setup%second_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	halphadiag%setup%second_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	halphadiag%setup%second_point%phi (vecflt_type) (7.9.4.1.14)
solidangle (2272)	halphadiag%setup%solidangle (exp1D) (7.9.4.1.197)
value (2241)	halphadiag%setup%solidangle%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	halphadiag%setup%solidangle%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	halphadiag%setup%solidangle%relerror (vecflt_type) (7.9.4.1.14)
intensity (2081)	halphadiag%intensity (exp1D) (7.9.4.1.197)
value (2241)	halphadiag%intensity%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	halphadiag%intensity%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	halphadiag%intensity%relerror (vecflt_type) (7.9.4.1.14)
time (2081)	halphadiag%time (float) (7.9.4.1.2)

7.9.4.2.20 interfdiag

datainfo (2292)	lineintegraldiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	lineintegraldiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	lineintegraldiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	lineintegraldiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	lineintegraldiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	lineintegraldiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	lineintegraldiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	lineintegraldiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	lineintegraldiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	lineintegraldiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)

rights (2350)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
expression (2292)	lineintegraldiag%expression (string) (7.9.4.1.4)
setup_line (2292)	lineintegraldiag%setup_line (setup_line) (7.9.4.1.373)
pivot_point (2417)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.4.1.14)
horchordang1 (2417)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.4.1.14)
verchordang1 (2417)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.4.1.14)
width (2417)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.4.1.14)
second_point (2417)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.4.1.14)
horchordang2 (2417)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.4.1.14)
verchordang2 (2417)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.4.1.14)
third_point (2417)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.4.1.14)
nchordpoints (2417)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.4.1.3)
measure (2292)	lineintegraldiag%measure (exp1D) (7.9.4.1.197)
value (2241)	lineintegraldiag%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.4.1.14)
time (2292)	lineintegraldiag%time (float) (7.9.4.1.2)

7.9.4.2.21 ironmodel

datainfo (2083)	ironmodel%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	ironmodel%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	ironmodel%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	ironmodel%datainfo%source (string) (7.9.4.1.4)
comment (2181)	ironmodel%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	ironmodel%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	ironmodel%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	ironmodel%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	ironmodel%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	ironmodel%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	ironmodel%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	ironmodel%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	ironmodel%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	ironmodel%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	ironmodel%datainfo%putinfo%rights (string) (7.9.4.1.4)
desc_iron (2083)	ironmodel%desc_iron (desc_iron) (7.9.4.1.141)
name (2185)	ironmodel%desc_iron%name (vecstring_type) (7.9.4.1.16)
id (2185)	ironmodel%desc_iron%id (vecstring_type) (7.9.4.1.16)
permeability (2185)	ironmodel%desc_iron%permeability (permeability) (7.9.4.1.287)
b (2331)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.4.1.12)
mur (2331)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.4.1.12)
geom_iron (2185)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.4.1.223)
npoints (2267)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.4.1.15)
rzcoordinate (2267)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.4.1.339)
r (2383)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.4.1.12)
z (2383)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.4.1.12)
magnetise (2083)	ironmodel%magnetise (magnetise) (7.9.4.1.254)
mr (2298)	ironmodel%magnetise%mr (exp1D) (7.9.4.1.197)

value (2241)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.4.1.14)
mz (2298)	ironmodel%magnetise%mz (exp1D) (7.9.4.1.197)
value (2241)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.4.1.14)
time (2083)	ironmodel%time (float) (7.9.4.1.2)

7.9.4.2.22 langmuirdiag

datainfo (2084)	langmuirdiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	langmuirdiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	langmuirdiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	langmuirdiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	langmuirdiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	langmuirdiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	langmuirdiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	langmuirdiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	langmuirdiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	langmuirdiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	langmuirdiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	langmuirdiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
potential (2084)	langmuirdiag%potential (lang_measure) (7.9.4.1.239)
name (2283)	langmuirdiag%potential%name (vecstring_type) (7.9.4.1.16)
direction (2283)	langmuirdiag%potential%direction (vecstring_type) (7.9.4.1.16)
area (2283)	langmuirdiag%potential%area (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%potential%area%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.4.1.14)
position (2283)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%potential%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%potential%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%potential%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2283)	langmuirdiag%potential%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.4.1.14)
bias (2084)	langmuirdiag%bias (lang_measure) (7.9.4.1.239)
name (2283)	langmuirdiag%bias%name (vecstring_type) (7.9.4.1.16)
direction (2283)	langmuirdiag%bias%direction (vecstring_type) (7.9.4.1.16)
area (2283)	langmuirdiag%bias%area (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%bias%area%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.4.1.14)

position (2283)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%bias%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%bias%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%bias%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2283)	langmuirdiag%bias%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.4.1.14)
jsat (2084)	langmuirdiag%jsat (lang_measure) (7.9.4.1.239)
name (2283)	langmuirdiag%jsat%name (vecstring_type) (7.9.4.1.16)
direction (2283)	langmuirdiag%jsat%direction (vecstring_type) (7.9.4.1.16)
area (2283)	langmuirdiag%jsat%area (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.4.1.14)
position (2283)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%jsat%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%jsat%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%jsat%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2283)	langmuirdiag%jsat%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.4.1.14)
ne (2084)	langmuirdiag%ne (lang_derived) (7.9.4.1.238)
source (2282)	langmuirdiag%ne%source (vecstring_type) (7.9.4.1.16)
position (2282)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%ne%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%ne%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%ne%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2282)	langmuirdiag%ne%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.4.1.14)
te (2084)	langmuirdiag%te (lang_derived) (7.9.4.1.238)

source (2282)	langmuirdiag%te%source (vecstring_type) (7.9.4.1.16)
position (2282)	langmuirdiag%te%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%te%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%te%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%te%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%te%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%te%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%te%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%te%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%te%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%te%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2282)	langmuirdiag%te%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%te%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%te%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%te%measure%relerror (vecflt_type) (7.9.4.1.14)
machpar (2084)	langmuirdiag%machpar (lang_derived) (7.9.4.1.238)
source (2282)	langmuirdiag%machpar%source (vecstring_type) (7.9.4.1.16)
position (2282)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	langmuirdiag%machpar%position%r (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%machpar%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%machpar%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	langmuirdiag%machpar%position%z (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%machpar%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%machpar%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	langmuirdiag%machpar%position%phi (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%machpar%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%machpar%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2282)	langmuirdiag%machpar%measure (exp1D) (7.9.4.1.197)
value (2241)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	langmuirdiag%machpar%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	langmuirdiag%machpar%measure%relerror (vecflt_type) (7.9.4.1.14)
codeparam (2084)	langmuirdiag%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	langmuirdiag%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	langmuirdiag%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	langmuirdiag%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	langmuirdiag%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	langmuirdiag%codeparam%output_flag (integer) (7.9.4.1.3)
time (2084)	langmuirdiag%time (float) (7.9.4.1.2)

7.9.4.2.23 launchs

datainfo (2085)	launchs%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	launchs%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	launchs%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	launchs%datainfo%source (string) (7.9.4.1.4)
comment (2181)	launchs%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	launchs%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	launchs%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	launchs%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	launchs%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	launchs%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	launchs%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	launchs%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	launchs%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	launchs%datainfo%whatref%occurrence (integer) (7.9.4.1.3)

putinfo (2181)	launchs%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	launchs%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	launchs%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	launchs%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	launchs%datainfo%putinfo%rights (string) (7.9.4.1.4)
name (2085)	launchs%name (vecstring_type) (7.9.4.1.16)
type (2085)	launchs%type (vecstring_type) (7.9.4.1.16)
frequency (2085)	launchs%frequency (vecflt_type) (7.9.4.1.14)
mode (2085)	launchs%mode (vecint_type) (7.9.4.1.15)
position (2085)	launchs%position (rzphi1D) (7.9.4.1.342)
r (2386)	launchs%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	launchs%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	launchs%position%phi (vecflt_type) (7.9.4.1.14)
spectrum (2085)	launchs%spectrum (spectrum) (7.9.4.1.389)
phi_theta (2433)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.4.1.242)
nn_phi (2286)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.4.1.15)
nn_theta (2286)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.4.1.15)
n_phi (2286)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.4.1.12)
n_theta (2286)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.4.1.12)
power (2286)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.4.1.6)
parallel (2433)	launchs%spectrum%parallel (launchs_parallel) (7.9.4.1.241)
nn_par (2285)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.4.1.15)
n_par (2285)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.4.1.12)
power (2285)	launchs%spectrum%parallel%power (vecflt_type) (7.9.4.1.14)
beam (2085)	launchs%beam (launchs_rfbeam) (7.9.4.1.243)
spot (2287)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.4.1.245)
waist (2289)	launchs%beam%spot%waist (matflt_type) (7.9.4.1.12)
angle (2289)	launchs%beam%spot%angle (vecflt_type) (7.9.4.1.14)
phaseellipse (2287)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.4.1.244)
invcurvrad (2288)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.4.1.12)
angle (2288)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.4.1.14)
codeparam (2085)	launchs%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	launchs%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	launchs%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	launchs%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	launchs%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	launchs%codeparam%output_flag (integer) (7.9.4.1.3)
time (2085)	launchs%time (float) (7.9.4.1.2)

7.9.4.2.24 limiter

datainfo (2086)	limiter%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	limiter%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	limiter%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	limiter%datainfo%source (string) (7.9.4.1.4)
comment (2181)	limiter%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	limiter%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	limiter%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	limiter%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	limiter%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	limiter%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	limiter%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	limiter%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	limiter%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	limiter%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	limiter%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	limiter%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	limiter%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	limiter%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	limiter%datainfo%putinfo%rights (string) (7.9.4.1.4)
limiter_unit (2086)	limiter%limiter_unit(:) (limiter_unit) (7.9.4.1.247)

name (2291)	limiter%limiter_unit(:)%name (string) (7.9.4.1.4)
closed (2291)	limiter%limiter_unit(:)%closed (string) (7.9.4.1.4)
position (2291)	limiter%limiter_unit(:)%position (rz1D) (7.9.4.1.336)
r (2380)	limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.4.1.14)
eta (2291)	limiter%limiter_unit(:)%eta (float) (7.9.4.1.2)
delta (2291)	limiter%limiter_unit(:)%delta (float) (7.9.4.1.2)
permeability (2291)	limiter%limiter_unit(:)%permeability (float) (7.9.4.1.2)

7.9.4.2.25 lithiumdiag

datainfo (2087)	lithiumdiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	lithiumdiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	lithiumdiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	lithiumdiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	lithiumdiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	lithiumdiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	lithiumdiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	lithiumdiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	lithiumdiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	lithiumdiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	lithiumdiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	lithiumdiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	lithiumdiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	lithiumdiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	lithiumdiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	lithiumdiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	lithiumdiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	lithiumdiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	lithiumdiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2087)	lithiumdiag%setup (lithsetup) (7.9.4.1.250)
position (2294)	lithiumdiag%setup%position (rzphi1D) (7.9.4.1.342)
r (2386)	lithiumdiag%setup%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	lithiumdiag%setup%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lithiumdiag%setup%position%phi (vecflt_type) (7.9.4.1.14)
measure (2087)	lithiumdiag%measure (lithmeasure) (7.9.4.1.249)
ne (2293)	lithiumdiag%measure%ne (exp1D) (7.9.4.1.197)
value (2241)	lithiumdiag%measure%ne%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	lithiumdiag%measure%ne%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	lithiumdiag%measure%ne%relerror (vecflt_type) (7.9.4.1.14)
time (2087)	lithiumdiag%time (float) (7.9.4.1.2)

7.9.4.2.26 magdiag

datainfo (2088)	magdiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	magdiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	magdiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	magdiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	magdiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	magdiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	magdiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	magdiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	magdiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	magdiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	magdiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	magdiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	magdiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	magdiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	magdiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	magdiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	magdiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)

putlocation (2350)	magdiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	magdiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
ip (2088)	magdiag%ip (exp0D) (7.9.4.1.196)
value (2240)	magdiag%ip%value (float) (7.9.4.1.2)
abserror (2240)	magdiag%ip%abserror (float) (7.9.4.1.2)
relerror (2240)	magdiag%ip%relerror (float) (7.9.4.1.2)
diamagflux (2088)	magdiag%diamagflux (exp0D) (7.9.4.1.196)
value (2240)	magdiag%diamagflux%value (float) (7.9.4.1.2)
abserror (2240)	magdiag%diamagflux%abserror (float) (7.9.4.1.2)
relerror (2240)	magdiag%diamagflux%relerror (float) (7.9.4.1.2)
flux_loops (2088)	magdiag%flux_loops (flux_loops) (7.9.4.1.202)
setup_floops (2246)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.4.1.371)
name (2415)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.4.1.16)
id (2415)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.4.1.16)
position (2415)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.4.1.344)
r (2388)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.4.1.12)
z (2388)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.4.1.12)
phi (2388)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.4.1.12)
npoints (2415)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.4.1.15)
measure (2246)	magdiag%flux_loops%measure (exp1D) (7.9.4.1.197)
value (2241)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.4.1.14)
bpol_probes (2088)	magdiag%bpol_probes (bpol_probes) (7.9.4.1.80)
setup_bprobe (2124)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.4.1.370)
name (2414)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.4.1.16)
id (2414)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.4.1.16)
position (2414)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.4.1.336)
r (2380)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.4.1.14)
polangle (2414)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.4.1.14)
torangle (2414)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.4.1.14)
area (2414)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.4.1.14)
length (2414)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.4.1.14)
turns (2414)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.4.1.15)
measure (2124)	magdiag%bpol_probes%measure (exp1D) (7.9.4.1.197)
value (2241)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.4.1.14)
time (2088)	magdiag%time (float) (7.9.4.1.2)

7.9.4.2.27 mhd

datainfo (2089)	mhd%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	mhd%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	mhd%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	mhd%datainfo%source (string) (7.9.4.1.4)
comment (2181)	mhd%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	mhd%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	mhd%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	mhd%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	mhd%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	mhd%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	mhd%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	mhd%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	mhd%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	mhd%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	mhd%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	mhd%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	mhd%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	mhd%datainfo%putinfo%putlocation (string) (7.9.4.1.4)

rights (2350)	mhd%datainfo%putinfo%rights (string) (7.9.4.1.4)
n (2089)	mhd%n (vecint_type) (7.9.4.1.15)
frequency (2089)	mhd%frequency (vecflt_type) (7.9.4.1.14)
growthrate (2089)	mhd%growthrate (vecflt_type) (7.9.4.1.14)
plasma (2089)	mhd%plasma (mhd_plasma) (7.9.4.1.258)
psi (2302)	mhd%plasma%psi (vecflt_type) (7.9.4.1.14)
m (2302)	mhd%plasma%m (array3dflt_type) (7.9.4.1.6)
disp_perp (2302)	mhd%plasma%disp_perp (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%disp_perp%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%disp_perp%im (array3dflt_type) (7.9.4.1.6)
disp_par (2302)	mhd%plasma%disp_par (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%disp_par%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%disp_par%im (array3dflt_type) (7.9.4.1.6)
tau_alfven (2302)	mhd%plasma%tau_alfven (vecflt_type) (7.9.4.1.14)
tau_resistive (2302)	mhd%plasma%tau_resistive (vecflt_type) (7.9.4.1.14)
coord_sys (2302)	mhd%plasma%coord_sys (coord_sys) (7.9.4.1.106)
grid_type (2150)	mhd%plasma%coord_sys%grid_type (string) (7.9.4.1.4)
grid (2150)	mhd%plasma%coord_sys%grid (reggrid) (7.9.4.1.331)
dim1 (2375)	mhd%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.4.1.14)
dim2 (2375)	mhd%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.4.1.14)
jacobian (2150)	mhd%plasma%coord_sys%jacobian (matflt_type) (7.9.4.1.12)
g_11 (2150)	mhd%plasma%coord_sys%g_11 (matflt_type) (7.9.4.1.12)
g_12 (2150)	mhd%plasma%coord_sys%g_12 (matflt_type) (7.9.4.1.12)
g_13 (2150)	mhd%plasma%coord_sys%g_13 (matflt_type) (7.9.4.1.12)
g_22 (2150)	mhd%plasma%coord_sys%g_22 (matflt_type) (7.9.4.1.12)
g_23 (2150)	mhd%plasma%coord_sys%g_23 (matflt_type) (7.9.4.1.12)
g_33 (2150)	mhd%plasma%coord_sys%g_33 (matflt_type) (7.9.4.1.12)
position (2150)	mhd%plasma%coord_sys%position (rz2D) (7.9.4.1.339)
r (2383)	mhd%plasma%coord_sys%position%r (matflt_type) (7.9.4.1.12)
z (2383)	mhd%plasma%coord_sys%position%z (matflt_type) (7.9.4.1.12)
a_pert (2302)	mhd%plasma%a_pert (mhd_vector) (7.9.4.1.261)
coord1 (2305)	mhd%plasma%a_pert%coord1 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%a_pert%coord1%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%a_pert%coord1%im (array3dflt_type) (7.9.4.1.6)
coord2 (2305)	mhd%plasma%a_pert%coord2 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%a_pert%coord2%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%a_pert%coord2%im (array3dflt_type) (7.9.4.1.6)
coord3 (2305)	mhd%plasma%a_pert%coord3 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%a_pert%coord3%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%a_pert%coord3%im (array3dflt_type) (7.9.4.1.6)
b_pert (2302)	mhd%plasma%b_pert (mhd_vector) (7.9.4.1.261)
coord1 (2305)	mhd%plasma%b_pert%coord1 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%b_pert%coord1%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%b_pert%coord1%im (array3dflt_type) (7.9.4.1.6)
coord2 (2305)	mhd%plasma%b_pert%coord2 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%b_pert%coord2%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%b_pert%coord2%im (array3dflt_type) (7.9.4.1.6)
coord3 (2305)	mhd%plasma%b_pert%coord3 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%b_pert%coord3%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%b_pert%coord3%im (array3dflt_type) (7.9.4.1.6)
v_pert (2302)	mhd%plasma%v_pert (mhd_vector) (7.9.4.1.261)
coord1 (2305)	mhd%plasma%v_pert%coord1 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%v_pert%coord1%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%v_pert%coord1%im (array3dflt_type) (7.9.4.1.6)
coord2 (2305)	mhd%plasma%v_pert%coord2 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%v_pert%coord2%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%v_pert%coord2%im (array3dflt_type) (7.9.4.1.6)
coord3 (2305)	mhd%plasma%v_pert%coord3 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%v_pert%coord3%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%v_pert%coord3%im (array3dflt_type) (7.9.4.1.6)
p_pert (2302)	mhd%plasma%p_pert (array3dcplx_type) (7.9.4.1.71)

re (2115)	mhd%plasma%p_pert%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%p_pert%im (array3dflt_type) (7.9.4.1.6)
rho_mass_pert (2302)	mhd%plasma%rho_mass_pert (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%rho_mass_pert%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%rho_mass_pert%im (array3dflt_type) (7.9.4.1.6)
temp_pert (2302)	mhd%plasma%temp_pert (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%plasma%temp_pert%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%plasma%temp_pert%im (array3dflt_type) (7.9.4.1.6)
vacuum (2089)	mhd%vacuum (mhd_vacuum) (7.9.4.1.260)
m (2304)	mhd%vacuum%m (array3dflt_type) (7.9.4.1.6)
coord_sys (2304)	mhd%vacuum%coord_sys (coord_sys) (7.9.4.1.106)
grid_type (2150)	mhd%vacuum%coord_sys%grid_type (string) (7.9.4.1.4)
grid (2150)	mhd%vacuum%coord_sys%grid (reggrid) (7.9.4.1.331)
dim1 (2375)	mhd%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.4.1.14)
dim2 (2375)	mhd%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.4.1.14)
jacobian (2150)	mhd%vacuum%coord_sys%jacobian (matflt_type) (7.9.4.1.12)
g_11 (2150)	mhd%vacuum%coord_sys%g_11 (matflt_type) (7.9.4.1.12)
g_12 (2150)	mhd%vacuum%coord_sys%g_12 (matflt_type) (7.9.4.1.12)
g_13 (2150)	mhd%vacuum%coord_sys%g_13 (matflt_type) (7.9.4.1.12)
g_22 (2150)	mhd%vacuum%coord_sys%g_22 (matflt_type) (7.9.4.1.12)
g_23 (2150)	mhd%vacuum%coord_sys%g_23 (matflt_type) (7.9.4.1.12)
g_33 (2150)	mhd%vacuum%coord_sys%g_33 (matflt_type) (7.9.4.1.12)
position (2150)	mhd%vacuum%coord_sys%position (rz2D) (7.9.4.1.339)
r (2383)	mhd%vacuum%coord_sys%position%r (matflt_type) (7.9.4.1.12)
z (2383)	mhd%vacuum%coord_sys%position%z (matflt_type) (7.9.4.1.12)
a_pert (2304)	mhd%vacuum%a_pert (mhd_vector) (7.9.4.1.261)
coord1 (2305)	mhd%vacuum%a_pert%coord1 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%a_pert%coord1%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%a_pert%coord1%im (array3dflt_type) (7.9.4.1.6)
coord2 (2305)	mhd%vacuum%a_pert%coord2 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%a_pert%coord2%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%a_pert%coord2%im (array3dflt_type) (7.9.4.1.6)
coord3 (2305)	mhd%vacuum%a_pert%coord3 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%a_pert%coord3%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%a_pert%coord3%im (array3dflt_type) (7.9.4.1.6)
b_pert (2304)	mhd%vacuum%b_pert (mhd_vector) (7.9.4.1.261)
coord1 (2305)	mhd%vacuum%b_pert%coord1 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%b_pert%coord1%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%b_pert%coord1%im (array3dflt_type) (7.9.4.1.6)
coord2 (2305)	mhd%vacuum%b_pert%coord2 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%b_pert%coord2%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%b_pert%coord2%im (array3dflt_type) (7.9.4.1.6)
coord3 (2305)	mhd%vacuum%b_pert%coord3 (array3dcplx_type) (7.9.4.1.71)
re (2115)	mhd%vacuum%b_pert%coord3%re (array3dflt_type) (7.9.4.1.6)
im (2115)	mhd%vacuum%b_pert%coord3%im (array3dflt_type) (7.9.4.1.6)
time (2089)	mhd%time (float) (7.9.4.1.2)
codeparam (2089)	mhd%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	mhd%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	mhd%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	mhd%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	mhd%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	mhd%codeparam%output_flag (integer) (7.9.4.1.3)

7.9.4.2.28 msediag

datainfo (2090)	msediag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	msediag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	msediag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	msediag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	msediag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	msediag%datainfo%cocos (integer) (7.9.4.1.3)

id (2181)	msediag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	msediag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	msediag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	msediag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	msediag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	msediag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	msediag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	msediag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	msediag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	msediag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	msediag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	msediag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	msediag%datainfo%putinfo%rights (string) (7.9.4.1.4)
polarimetry (2090)	msediag%polarimetry (polarimetry) (7.9.4.1.300)
setup (2344)	msediag%polarimetry%setup (msediag_setup_polarimetry) (7.9.4.1.269)
rzgamma (2313)	msediag%polarimetry%setup%rzgamma (rzphidrdzdphi1D) (7.9.4.1.346)
r (2390)	msediag%polarimetry%setup%rzgamma%r (vecflt_type) (7.9.4.1.14)
z (2390)	msediag%polarimetry%setup%rzgamma%z (vecflt_type) (7.9.4.1.14)
phi (2390)	msediag%polarimetry%setup%rzgamma%phi (vecflt_type) (7.9.4.1.14)
dr (2390)	msediag%polarimetry%setup%rzgamma%dr (vecflt_type) (7.9.4.1.14)
dz (2390)	msediag%polarimetry%setup%rzgamma%dz (vecflt_type) (7.9.4.1.14)
dphi (2390)	msediag%polarimetry%setup%rzgamma%dphi (vecflt_type) (7.9.4.1.14)
geom_coef (2313)	msediag%polarimetry%setup%geom_coef (matflt_type) (7.9.4.1.12)
measure (2344)	msediag%polarimetry%measure (exp1D) (7.9.4.1.197)
value (2241)	msediag%polarimetry%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	msediag%polarimetry%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	msediag%polarimetry%measure%relerror (vecflt_type) (7.9.4.1.14)
spectral (2090)	msediag%spectral (spectral) (7.9.4.1.388)
emissivity (2432)	msediag%spectral%emissivity (msediag_emissivity) (7.9.4.1.264)
wavelength (2308)	msediag%spectral%emissivity%wavelength (vecflt_type) (7.9.4.1.14)
emiss_chord (2308)	msediag%spectral%emissivity%emiss_chord(:) (msediag_emiss_chord) (7.9.4.1.263)
volume (2307)	msediag%spectral%emissivity%emiss_chord(:)%volume (float) (7.9.4.1.2)
setup (2307)	msediag%spectral%emissivity%emiss_chord(:)%setup (rzphi1D) (7.9.4.1.342)
r (2386)	msediag%spectral%emissivity%emiss_chord(:)%setup%r (vecflt_type) (7.9.4.1.14)
z (2386)	msediag%spectral%emissivity%emiss_chord(:)%setup%z (vecflt_type) (7.9.4.1.14)
phi (2386)	msediag%spectral%emissivity%emiss_chord(:)%setup%phi (vecflt_type) (7.9.4.1.14)
polarization (2307)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:) (msediag_polarization) (7.9.4.1.265)
type (2309)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type (identifier) (7.9.4.1.230)
id (2274)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%id (string) (7.9.4.1.4)
flag (2274)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%flag (integer) (7.9.4.1.3)
description (2274)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%description (string) (7.9.4.1.4)
spec_emiss (2309)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%spec_emiss (matflt_type) (7.9.4.1.12)
quantiaxis (2307)	msediag%spectral%emissivity%emiss_chord(:)%quantiaxis (vecflt_type) (7.9.4.1.14)
radiance (2432)	msediag%spectral%radiance (msediag_radiance) (7.9.4.1.267)
wavelength (2311)	msediag%spectral%radiance%wavelength (exp1D) (7.9.4.1.197)
value (2241)	msediag%spectral%radiance%wavelength%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	msediag%spectral%radiance%wavelength%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	msediag%spectral%radiance%wavelength%relerror (vecflt_type) (7.9.4.1.14)
radia_chord (2311)	msediag%spectral%radiance%radia_chord(:) (msediag_radia_chord) (7.9.4.1.266)
setup (2310)	msediag%spectral%radiance%radia_chord(:)%setup (msediag_setup) (7.9.4.1.268)
pivot_point (2312)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point (rzphi0D) (7.9.4.1.341)
r (2385)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%r (float) (7.9.4.1.2)
z (2385)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%z (float) (7.9.4.1.2)
phi (2385)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%phi (float) (7.9.4.1.2)
horchordang (2312)	msediag%spectral%radiance%radia_chord(:)%setup%horchordang (float) (7.9.4.1.2)
verchordang (2312)	msediag%spectral%radiance%radia_chord(:)%setup%verchordang (float) (7.9.4.1.2)
second_point (2312)	msediag%spectral%radiance%radia_chord(:)%setup%second_point (rzphi0D) (7.9.4.1.341)
r (2385)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%r (float) (7.9.4.1.2)
z (2385)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%z (float) (7.9.4.1.2)

phi (2385)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%phi (float) (7.9.4.1.2)
stokes (2310)	msediag%spectral%radiance%radia_chord(:)%stokes(:) (msediag_stokes) (7.9.4.1.270)
type (2314)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type (identifier) (7.9.4.1.230)
id (2274)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%id (string) (7.9.4.1.4)
flag (2274)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%flag (integer) (7.9.4.1.3)
description (2274)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%description (string) (7.9.4.1.4)
vector (2314)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%vector (matflt_type) (7.9.4.1.12)
totradiance (2310)	msediag%spectral%radiance%radia_chord(:)%totradiance (exp1D) (7.9.4.1.197)
value (2241)	msediag%spectral%radiance%radia_chord(:)%totradiance%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	msediag%spectral%radiance%radia_chord(:)%totradiance%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	msediag%spectral%radiance%radia_chord(:)%totradiance%relerror (vecflt_type) (7.9.4.1.14)
codeparam (2432)	msediag%spectral%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	msediag%spectral%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	msediag%spectral%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	msediag%spectral%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	msediag%spectral%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	msediag%spectral%codeparam%output_flag (integer) (7.9.4.1.3)
time (2090)	msediag%time (float) (7.9.4.1.2)

7.9.4.2.29 nbi

datainfo (2091)	nbi%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	nbi%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	nbi%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	nbi%datainfo%source (string) (7.9.4.1.4)
comment (2181)	nbi%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	nbi%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	nbi%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	nbi%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	nbi%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	nbi%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	nbi%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	nbi%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	nbi%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	nbi%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	nbi%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	nbi%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	nbi%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	nbi%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	nbi%datainfo%putinfo%rights (string) (7.9.4.1.4)
nbi_unit (2091)	nbi%nbi_unit(:) (nbi_unit) (7.9.4.1.271)
name (2315)	nbi%nbi_unit(:)%name (string) (7.9.4.1.4)
inj_spec (2315)	nbi%nbi_unit(:)%inj_spec (inj_spec) (7.9.4.1.234)
amn (2278)	nbi%nbi_unit(:)%inj_spec%amn (float) (7.9.4.1.2)
zn (2278)	nbi%nbi_unit(:)%inj_spec%zn (float) (7.9.4.1.2)
pow_unit (2315)	nbi%nbi_unit(:)%pow_unit (exp0D) (7.9.4.1.196)
value (2240)	nbi%nbi_unit(:)%pow_unit%value (float) (7.9.4.1.2)
abserror (2240)	nbi%nbi_unit(:)%pow_unit%abserror (float) (7.9.4.1.2)
relerror (2240)	nbi%nbi_unit(:)%pow_unit%relerror (float) (7.9.4.1.2)
inj_eng_unit (2315)	nbi%nbi_unit(:)%inj_eng_unit (exp0D) (7.9.4.1.196)
value (2240)	nbi%nbi_unit(:)%inj_eng_unit%value (float) (7.9.4.1.2)
abserror (2240)	nbi%nbi_unit(:)%inj_eng_unit%abserror (float) (7.9.4.1.2)
relerror (2240)	nbi%nbi_unit(:)%inj_eng_unit%relerror (float) (7.9.4.1.2)
beamcurrfrac (2315)	nbi%nbi_unit(:)%beamcurrfrac (exp1D) (7.9.4.1.197)
value (2241)	nbi%nbi_unit(:)%beamcurrfrac%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	nbi%nbi_unit(:)%beamcurrfrac%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	nbi%nbi_unit(:)%beamcurrfrac%relerror (vecflt_type) (7.9.4.1.14)
beampowrfrac (2315)	nbi%nbi_unit(:)%beampowrfrac (exp1D) (7.9.4.1.197)
value (2241)	nbi%nbi_unit(:)%beampowrfrac%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	nbi%nbi_unit(:)%beampowrfrac%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	nbi%nbi_unit(:)%beampowrfrac%relerror (vecflt_type) (7.9.4.1.14)

setup_inject (2315)	nbi%nbi_unit(:)%setup_inject (setup_inject) (7.9.4.1.372)
position (2416)	nbi%nbi_unit(:)%setup_inject%position (rzphi0D) (7.9.4.1.341)
r (2385)	nbi%nbi_unit(:)%setup_inject%position%r (float) (7.9.4.1.2)
z (2385)	nbi%nbi_unit(:)%setup_inject%position%z (float) (7.9.4.1.2)
phi (2385)	nbi%nbi_unit(:)%setup_inject%position%phi (float) (7.9.4.1.2)
tang_rad (2416)	nbi%nbi_unit(:)%setup_inject%tang_rad (float) (7.9.4.1.2)
angle (2416)	nbi%nbi_unit(:)%setup_inject%angle (float) (7.9.4.1.2)
direction (2416)	nbi%nbi_unit(:)%setup_inject%direction (integer) (7.9.4.1.3)
focal_len_hz (2416)	nbi%nbi_unit(:)%setup_inject%focal_len_hz (float) (7.9.4.1.2)
focal_len_vc (2416)	nbi%nbi_unit(:)%setup_inject%focal_len_vc (float) (7.9.4.1.2)
divergence (2416)	nbi%nbi_unit(:)%setup_inject%divergence (divergence) (7.9.4.1.173)
frac_divcomp (2217)	nbi%nbi_unit(:)%setup_inject%divergence%frac_divcomp (vecflt_type) (7.9.4.1.14)
div_vert (2217)	nbi%nbi_unit(:)%setup_inject%divergence%div_vert (vecflt_type) (7.9.4.1.14)
div_horiz (2217)	nbi%nbi_unit(:)%setup_inject%divergence%div_horiz (vecflt_type) (7.9.4.1.14)
beamlets (2416)	nbi%nbi_unit(:)%setup_inject%beamlets (beamlets) (7.9.4.1.73)
position (2117)	nbi%nbi_unit(:)%setup_inject%beamlets%position (rzphi1D) (7.9.4.1.342)
r (2386)	nbi%nbi_unit(:)%setup_inject%beamlets%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	nbi%nbi_unit(:)%setup_inject%beamlets%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	nbi%nbi_unit(:)%setup_inject%beamlets%position%phi (vecflt_type) (7.9.4.1.14)
tang_rad_blt (2117)	nbi%nbi_unit(:)%setup_inject%beamlets%tang_rad_blt (vecflt_type) (7.9.4.1.14)
angle_blt (2117)	nbi%nbi_unit(:)%setup_inject%beamlets%angle_blt (vecflt_type) (7.9.4.1.14)
pow_frc_blt (2117)	nbi%nbi_unit(:)%setup_inject%beamlets%pow_frc_blt (vecflt_type) (7.9.4.1.14)
codeparam (2315)	nbi%nbi_unit(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	nbi%nbi_unit(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	nbi%nbi_unit(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	nbi%nbi_unit(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	nbi%nbi_unit(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	nbi%nbi_unit(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2091)	nbi%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	nbi%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	nbi%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	nbi%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	nbi%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	nbi%codeparam%output_flag (integer) (7.9.4.1.3)
time (2091)	nbi%time (float) (7.9.4.1.2)

7.9.4.2.30 neoclassic

datainfo (2092)	neoclassic%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	neoclassic%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	neoclassic%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	neoclassic%datainfo%source (string) (7.9.4.1.4)
comment (2181)	neoclassic%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	neoclassic%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	neoclassic%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	neoclassic%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	neoclassic%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	neoclassic%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	neoclassic%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	neoclassic%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	neoclassic%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	neoclassic%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	neoclassic%datainfo%putinfo%rights (string) (7.9.4.1.4)
rho_tor_norm (2092)	neoclassic%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2092)	neoclassic%rho_tor (vecflt_type) (7.9.4.1.14)
composition (2092)	neoclassic%composition (composition) (7.9.4.1.100)
amn (2144)	neoclassic%composition%amn (vecflt_type) (7.9.4.1.14)

zn (2144)	neoclassic%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	neoclassic%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	neoclassic%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	neoclassic%composition%label (vecstring_type) (7.9.4.1.16)
desc_impur (2092)	neoclassic%desc_impur (desc_impur) (7.9.4.1.140)
amn (2184)	neoclassic%desc_impur%amn (vecflt_type) (7.9.4.1.14)
zn (2184)	neoclassic%desc_impur%zn (vecint_type) (7.9.4.1.15)
i_ion (2184)	neoclassic%desc_impur%i_ion (vecint_type) (7.9.4.1.15)
nzimp (2184)	neoclassic%desc_impur%nzimp (vecint_type) (7.9.4.1.15)
zmin (2184)	neoclassic%desc_impur%zmin (matint_type) (7.9.4.1.13)
zmax (2184)	neoclassic%desc_impur%zmax (matint_type) (7.9.4.1.13)
label (2184)	neoclassic%desc_impur%label (vecstring_type) (7.9.4.1.16)
compositions (2092)	neoclassic%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	neoclassic%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	neoclassic%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	neoclassic%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	neoclassic%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	neoclassic%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	neoclassic%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	neoclassic%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	neoclassic%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	neoclassic%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	neoclassic%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	neoclassic%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	neoclassic%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	neoclassic%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	neoclassic%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	neoclassic%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	neoclassic%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	neoclassic%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	neoclassic%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	neoclassic%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	neoclassic%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	neoclassic%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	neoclassic%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	neoclassic%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	neoclassic%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	neoclassic%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	neoclassic%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	neoclassic%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	neoclassic%compositions%edgespecies(:)%label (string) (7.9.4.1.4)
signature (2148)	neoclassic%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	neoclassic%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	neoclassic%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	neoclassic%compositions%signature%description (string) (7.9.4.1.4)
ni_neo (2092)	neoclassic%ni_neo (transcoefion) (7.9.4.1.408)
diff_eff (2452)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2452)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2452)	neoclassic%ni_neo%exchange (matflt_type) (7.9.4.1.12)
qgi (2452)	neoclassic%ni_neo%qgi (matflt_type) (7.9.4.1.12)
flux (2452)	neoclassic%ni_neo%flux (matflt_type) (7.9.4.1.12)
off_diagonal (2452)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.4.1.278)
d_ni (2322)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.4.1.6)
d_ti (2322)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.4.1.6)
d_ne (2322)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.4.1.12)
d_te (2322)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.4.1.12)
d_epar (2322)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.4.1.12)
d_mtor (2322)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.4.1.12)
flag (2452)	neoclassic%ni_neo%flag (integer) (7.9.4.1.3)

ne_neo (2092)	neoclassic%ne_neo (transcoefel) (7.9.4.1.406)
diff_eff (2450)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.4.1.14)
vconv_eff (2450)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.4.1.14)
flux (2450)	neoclassic%ne_neo%flux (vecflt_type) (7.9.4.1.14)
off_diagonal (2450)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.4.1.277)
d_ni (2321)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.4.1.12)
d_ti (2321)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.4.1.12)
d_ne (2321)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.4.1.14)
d_te (2321)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.4.1.14)
d_epar (2321)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.4.1.14)
d_mtor (2321)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.4.1.14)
flag (2450)	neoclassic%ne_neo%flag (integer) (7.9.4.1.3)
nz_neo (2092)	neoclassic%nz_neo(:) (transcoefimp) (7.9.4.1.407)
diff_eff (2451)	neoclassic%nz_neo(:)%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2451)	neoclassic%nz_neo(:)%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2451)	neoclassic%nz_neo(:)%exchange (matflt_type) (7.9.4.1.12)
flux (2451)	neoclassic%nz_neo(:)%flux (matflt_type) (7.9.4.1.12)
flag (2451)	neoclassic%nz_neo(:)%flag (integer) (7.9.4.1.3)
ti_neo (2092)	neoclassic%ti_neo (transcoefion) (7.9.4.1.408)
diff_eff (2452)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2452)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2452)	neoclassic%ti_neo%exchange (matflt_type) (7.9.4.1.12)
qgi (2452)	neoclassic%ti_neo%qgi (matflt_type) (7.9.4.1.12)
flux (2452)	neoclassic%ti_neo%flux (matflt_type) (7.9.4.1.12)
off_diagonal (2452)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.4.1.278)
d_ni (2322)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.4.1.6)
d_ti (2322)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.4.1.6)
d_ne (2322)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.4.1.12)
d_te (2322)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.4.1.12)
d_epar (2322)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.4.1.12)
d_mtor (2322)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.4.1.12)
flag (2452)	neoclassic%ti_neo%flag (integer) (7.9.4.1.3)
te_neo (2092)	neoclassic%te_neo (transcoefel) (7.9.4.1.406)
diff_eff (2450)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.4.1.14)
vconv_eff (2450)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.4.1.14)
flux (2450)	neoclassic%te_neo%flux (vecflt_type) (7.9.4.1.14)
off_diagonal (2450)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.4.1.277)
d_ni (2321)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.4.1.12)
d_ti (2321)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.4.1.12)
d_ne (2321)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.4.1.14)
d_te (2321)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.4.1.14)
d_epar (2321)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.4.1.14)
d_mtor (2321)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.4.1.14)
flag (2450)	neoclassic%te_neo%flag (integer) (7.9.4.1.3)
tz_neo (2092)	neoclassic%tz_neo(:) (transcoefimp) (7.9.4.1.407)
diff_eff (2451)	neoclassic%tz_neo(:)%diff_eff (matflt_type) (7.9.4.1.12)
vconv_eff (2451)	neoclassic%tz_neo(:)%vconv_eff (matflt_type) (7.9.4.1.12)
exchange (2451)	neoclassic%tz_neo(:)%exchange (matflt_type) (7.9.4.1.12)
flux (2451)	neoclassic%tz_neo(:)%flux (matflt_type) (7.9.4.1.12)
flag (2451)	neoclassic%tz_neo(:)%flag (integer) (7.9.4.1.3)
mtor_neo (2092)	neoclassic%mtor_neo (transcoefel) (7.9.4.1.406)
diff_eff (2450)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.4.1.14)
vconv_eff (2450)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.4.1.14)
flux (2450)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.4.1.14)
off_diagonal (2450)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.4.1.277)
d_ni (2321)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.4.1.12)
d_ti (2321)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.4.1.12)
d_ne (2321)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.4.1.14)
d_te (2321)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.4.1.14)
d_epar (2321)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.4.1.14)
d_mtor (2321)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.4.1.14)

flag (2450)	neoclassic%mtor_neo%flag (integer) (7.9.4.1.3)
sigma (2092)	neoclassic%sigma (vecflt_type) (7.9.4.1.14)
jboot (2092)	neoclassic%jboot (vecflt_type) (7.9.4.1.14)
er (2092)	neoclassic%er (vecflt_type) (7.9.4.1.14)
vpol (2092)	neoclassic%vpol (matflt_type) (7.9.4.1.12)
fext (2092)	neoclassic%fext (array3dflt_type) (7.9.4.1.6)
jext (2092)	neoclassic%jext (vecflt_type) (7.9.4.1.14)
time (2092)	neoclassic%time (float) (7.9.4.1.2)
codeparam (2092)	neoclassic%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	neoclassic%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	neoclassic%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	neoclassic%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	neoclassic%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	neoclassic%codeparam%output_flag (integer) (7.9.4.1.3)

7.9.4.2.31 orbit

datainfo (2093)	orbit%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	orbit%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	orbit%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	orbit%datainfo%source (string) (7.9.4.1.4)
comment (2181)	orbit%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	orbit%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	orbit%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	orbit%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	orbit%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	orbit%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	orbit%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	orbit%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	orbit%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	orbit%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	orbit%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	orbit%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	orbit%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	orbit%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	orbit%datainfo%putinfo%rights (string) (7.9.4.1.4)
com (2093)	orbit%com (com) (7.9.4.1.86)
amn (2130)	orbit%com%amn (float) (7.9.4.1.2)
zion (2130)	orbit%com%zion (float) (7.9.4.1.2)
energy (2130)	orbit%com%energy (vecflt_type) (7.9.4.1.14)
magn_mom (2130)	orbit%com%magn_mom (vecflt_type) (7.9.4.1.14)
p_phi (2130)	orbit%com%p_phi (vecflt_type) (7.9.4.1.14)
sigma (2130)	orbit%com%sigma (vecint_type) (7.9.4.1.15)
trace (2093)	orbit%trace (trace) (7.9.4.1.405)
time_orb (2449)	orbit%trace%time_orb (matflt_type) (7.9.4.1.12)
ntorb (2449)	orbit%trace%ntorb (vecint_type) (7.9.4.1.15)
r (2449)	orbit%trace%r (matflt_type) (7.9.4.1.12)
z (2449)	orbit%trace%z (matflt_type) (7.9.4.1.12)
phi (2449)	orbit%trace%phi (matflt_type) (7.9.4.1.12)
psi (2449)	orbit%trace%psi (matflt_type) (7.9.4.1.12)
theta_b (2449)	orbit%trace%theta_b (matflt_type) (7.9.4.1.12)
v_parallel (2449)	orbit%trace%v_parallel (matflt_type) (7.9.4.1.12)
v_perp (2449)	orbit%trace%v_perp (matflt_type) (7.9.4.1.12)
global_param (2093)	orbit%global_param (orbit_global_param) (7.9.4.1.280)
orbit_type (2324)	orbit%global_param%orbit_type (vecint_type) (7.9.4.1.15)
omega_b (2324)	orbit%global_param%omega_b (vecflt_type) (7.9.4.1.14)
omega_phi (2324)	orbit%global_param%omega_phi (vecflt_type) (7.9.4.1.14)
omega_c_av (2324)	orbit%global_param%omega_c_av (vecflt_type) (7.9.4.1.14)
special_pos (2324)	orbit%global_param%special_pos (orbit_special_pos) (7.9.4.1.283)
midplane (2327)	orbit%global_param%special_pos%midplane (orbit_midplane) (7.9.4.1.281)
outer (2325)	orbit%global_param%special_pos%midplane%outer (orbit_pos) (7.9.4.1.282)

r (2326)	orbit%global_param%special_pos%midplane%outer%r (vecflt_type) (7.9.4.1.14)
z (2326)	orbit%global_param%special_pos%midplane%outer%z (vecflt_type) (7.9.4.1.14)
phi (2326)	orbit%global_param%special_pos%midplane%outer%phi (vecflt_type) (7.9.4.1.14)
psi (2326)	orbit%global_param%special_pos%midplane%outer%psi (vecflt_type) (7.9.4.1.14)
theta_b (2326)	orbit%global_param%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.4.1.14)
inner (2325)	orbit%global_param%special_pos%midplane%inner (orbit_pos) (7.9.4.1.282)
r (2326)	orbit%global_param%special_pos%midplane%inner%r (vecflt_type) (7.9.4.1.14)
z (2326)	orbit%global_param%special_pos%midplane%inner%z (vecflt_type) (7.9.4.1.14)
phi (2326)	orbit%global_param%special_pos%midplane%inner%phi (vecflt_type) (7.9.4.1.14)
psi (2326)	orbit%global_param%special_pos%midplane%inner%psi (vecflt_type) (7.9.4.1.14)
theta_b (2326)	orbit%global_param%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.4.1.14)
turning_pts (2327)	orbit%global_param%special_pos%turning_pts (orbit_turning_pts) (7.9.4.1.284)
upper (2328)	orbit%global_param%special_pos%turning_pts%upper (orbit_pos) (7.9.4.1.282)
r (2326)	orbit%global_param%special_pos%turning_pts%upper%r (vecflt_type) (7.9.4.1.14)
z (2326)	orbit%global_param%special_pos%turning_pts%upper%z (vecflt_type) (7.9.4.1.14)
phi (2326)	orbit%global_param%special_pos%turning_pts%upper%phi (vecflt_type) (7.9.4.1.14)
psi (2326)	orbit%global_param%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.4.1.14)
theta_b (2326)	orbit%global_param%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.4.1.14)
lower (2328)	orbit%global_param%special_pos%turning_pts%lower (orbit_pos) (7.9.4.1.282)
r (2326)	orbit%global_param%special_pos%turning_pts%lower%r (vecflt_type) (7.9.4.1.14)
z (2326)	orbit%global_param%special_pos%turning_pts%lower%z (vecflt_type) (7.9.4.1.14)
phi (2326)	orbit%global_param%special_pos%turning_pts%lower%phi (vecflt_type) (7.9.4.1.14)
psi (2326)	orbit%global_param%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.4.1.14)
theta_b (2326)	orbit%global_param%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.4.1.14)
codeparam (2093)	orbit%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	orbit%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	orbit%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	orbit%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	orbit%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	orbit%codeparam%output_flag (integer) (7.9.4.1.3)
time (2093)	orbit%time (float) (7.9.4.1.2)

7.9.4.2.32 pellets

datainfo (2094)	pellets%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	pellets%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	pellets%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	pellets%datainfo%source (string) (7.9.4.1.4)
comment (2181)	pellets%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	pellets%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	pellets%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	pellets%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	pellets%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	pellets%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	pellets%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	pellets%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	pellets%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	pellets%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	pellets%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	pellets%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	pellets%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	pellets%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	pellets%datainfo%putinfo%rights (string) (7.9.4.1.4)
toroid_field (2094)	pellets%toroid_field (b0r0) (7.9.4.1.72)
r0 (2116)	pellets%toroid_field%r0 (float) (7.9.4.1.2)
b0 (2116)	pellets%toroid_field%b0 (float) (7.9.4.1.2)
species (2094)	pellets%species (species) (7.9.4.1.386)
amn (2430)	pellets%species%amn (vecflt_type) (7.9.4.1.14)
zn (2430)	pellets%species%zn (vecflt_type) (7.9.4.1.14)
concentr (2430)	pellets%species%concentr (vecflt_type) (7.9.4.1.14)
subl_energy (2430)	pellets%species%subl_energy (vecflt_type) (7.9.4.1.14)

shape (2094)	pellets%shape (shape) (7.9.4.1.374)
shape_sph (2418)	pellets%shape%shape_sph (shape_sph) (7.9.4.1.376)
radius (2420)	pellets%shape%shape_sph%radius (float) (7.9.4.1.2)
shape_cyl (2418)	pellets%shape%shape_cyl (shape_cyl) (7.9.4.1.375)
radius (2419)	pellets%shape%shape_cyl%radius (float) (7.9.4.1.2)
height (2419)	pellets%shape%shape_cyl%height (float) (7.9.4.1.2)
pelletpath (2094)	pellets%pelletpath (pelletpath) (7.9.4.1.286)
pivot_point (2330)	pellets%pelletpath%pivot_point (rzphi0D) (7.9.4.1.341)
r (2385)	pellets%pelletpath%pivot_point%r (float) (7.9.4.1.2)
z (2385)	pellets%pelletpath%pivot_point%z (float) (7.9.4.1.2)
phi (2385)	pellets%pelletpath%pivot_point%phi (float) (7.9.4.1.2)
horchordang (2330)	pellets%pelletpath%horchordang (float) (7.9.4.1.2)
verchordang (2330)	pellets%pelletpath%verchordang (float) (7.9.4.1.2)
second_point (2330)	pellets%pelletpath%second_point (rzphi0D) (7.9.4.1.341)
r (2385)	pellets%pelletpath%second_point%r (float) (7.9.4.1.2)
z (2385)	pellets%pelletpath%second_point%z (float) (7.9.4.1.2)
phi (2385)	pellets%pelletpath%second_point%phi (float) (7.9.4.1.2)
velocity (2094)	pellets%velocity (float) (7.9.4.1.2)
ablationrate (2094)	pellets%ablationrate (ablationrate) (7.9.4.1.65)
rho_tor (2109)	pellets%ablationrate%rho_tor (vecflt_type) (7.9.4.1.14)
rate (2109)	pellets%ablationrate%rate (vecflt_type) (7.9.4.1.14)
position (2109)	pellets%ablationrate%position (rzphi1D) (7.9.4.1.342)
r (2386)	pellets%ablationrate%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	pellets%ablationrate%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	pellets%ablationrate%position%phi (vecflt_type) (7.9.4.1.14)
deposprofile (2094)	pellets%deposprofile (deposprofile) (7.9.4.1.138)
rho_tor (2182)	pellets%deposprofile%rho_tor (vecflt_type) (7.9.4.1.14)
density (2182)	pellets%deposprofile%density (vecflt_type) (7.9.4.1.14)
position (2182)	pellets%deposprofile%position (rzphi1D) (7.9.4.1.342)
r (2386)	pellets%deposprofile%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	pellets%deposprofile%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	pellets%deposprofile%position%phi (vecflt_type) (7.9.4.1.14)
delay (2182)	pellets%deposprofile%delay (float) (7.9.4.1.2)
codeparam (2094)	pellets%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	pellets%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	pellets%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	pellets%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	pellets%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	pellets%codeparam%output_flag (integer) (7.9.4.1.3)
time (2094)	pellets%time (float) (7.9.4.1.2)

7.9.4.2.33 pfsystems

datainfo (2095)	pfsystems%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	pfsystems%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	pfsystems%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	pfsystems%datainfo%source (string) (7.9.4.1.4)
comment (2181)	pfsystems%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	pfsystems%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	pfsystems%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	pfsystems%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	pfsystems%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	pfsystems%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	pfsystems%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	pfsystems%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	pfsystems%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	pfsystems%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.4.1.4)

rights (2350)	pfsystems%datainfo%putinfo%rights (string) (7.9.4.1.4)
pfcoils (2095)	pfsystems%pfcoils (pfcoils) (7.9.4.1.289)
desc_pfcoils (2333)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.4.1.142)
name (2186)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.4.1.16)
id (2186)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.4.1.16)
res (2186)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.4.1.14)
emax (2186)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.4.1.14)
nelement (2186)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.4.1.15)
pfelement (2186)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.4.1.290)
name (2334)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.4.1.16)
id (2334)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.4.1.16)
turnsign (2334)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.4.1.12)
area (2334)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.4.1.12)
pfgeometry (2334)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.4.1.291)
type (2335)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.4.1.13)
npoints (2335)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.4.1.13)
rzcoordinate (2335)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.4.1.340)
r (2384)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.4.1.6)
z (2384)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.4.1.6)
rzdrdz (2335)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.4.1.6)
coilcurrent (2333)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.4.1.197)
value (2241)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.4.1.14)
coilvoltage (2333)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.4.1.197)
value (2241)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.4.1.14)
pfpassive (2095)	pfsystems%pfpassive (pfpassive) (7.9.4.1.293)
name (2337)	pfsystems%pfpassive%name (vecstring_type) (7.9.4.1.16)
area (2337)	pfsystems%pfpassive%area (vecflt_type) (7.9.4.1.14)
res (2337)	pfsystems%pfpassive%res (vecflt_type) (7.9.4.1.14)
eta (2337)	pfsystems%pfpassive%eta (vecflt_type) (7.9.4.1.14)
pfpageometry (2337)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.4.1.292)
type (2336)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.4.1.15)
npoints (2336)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.4.1.15)
rzcoordinate (2336)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.4.1.339)
r (2383)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.4.1.12)
z (2383)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.4.1.12)
rzdrdz (2336)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.4.1.12)
pfcircuits (2095)	pfsystems%pfcircuits (pfcircuits) (7.9.4.1.288)
name (2332)	pfsystems%pfcircuits%name (vecstring_type) (7.9.4.1.16)
id (2332)	pfsystems%pfcircuits%id (vecstring_type) (7.9.4.1.16)
type (2332)	pfsystems%pfcircuits%type (vecstring_type) (7.9.4.1.16)
nnodes (2332)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.4.1.15)
connections (2332)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.4.1.7)
pfsupplies (2095)	pfsystems%pfsupplies (pfsupplies) (7.9.4.1.294)
desc_supply (2338)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.4.1.143)
name (2187)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.4.1.16)
id (2187)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.4.1.16)
type (2187)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.4.1.16)
delay (2187)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.4.1.14)
filter (2187)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.4.1.200)
num (2244)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.4.1.12)
den (2244)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.4.1.12)
imin (2187)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.4.1.14)
imax (2187)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.4.1.14)
res (2187)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.4.1.14)
umin (2187)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.4.1.14)

umax (2187)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.4.1.14)
emax (2187)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.4.1.14)
voltage (2338)	pfsystems%pfsupplies%voltage (exp1D) (7.9.4.1.197)
value (2241)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.4.1.14)
current (2338)	pfsystems%pfsupplies%current (exp1D) (7.9.4.1.197)
value (2241)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.4.1.14)
time (2095)	pfsystems%time (float) (7.9.4.1.2)

7.9.4.2.34 polardiag

datainfo (2292)	lineintegraldiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	lineintegraldiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	lineintegraldiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	lineintegraldiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	lineintegraldiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	lineintegraldiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	lineintegraldiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	lineintegraldiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	lineintegraldiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	lineintegraldiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
expression (2292)	lineintegraldiag%expression (string) (7.9.4.1.4)
setup_line (2292)	lineintegraldiag%setup_line (setup_line) (7.9.4.1.373)
pivot_point (2417)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.4.1.14)
horchordang1 (2417)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.4.1.14)
verchordang1 (2417)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.4.1.14)
width (2417)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.4.1.14)
second_point (2417)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.4.1.14)
horchordang2 (2417)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.4.1.14)
verchordang2 (2417)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.4.1.14)
third_point (2417)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.4.1.342)
r (2386)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.4.1.14)
z (2386)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.4.1.14)
phi (2386)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.4.1.14)
nchordpoints (2417)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.4.1.3)
measure (2292)	lineintegraldiag%measure (exp1D) (7.9.4.1.197)
value (2241)	lineintegraldiag%measure%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.4.1.14)
time (2292)	lineintegraldiag%time (float) (7.9.4.1.2)

7.9.4.2.35 reference

datainfo (2097)	reference%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	reference%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	reference%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	reference%datainfo%source (string) (7.9.4.1.4)
comment (2181)	reference%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	reference%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	reference%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	reference%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	reference%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	reference%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	reference%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	reference%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	reference%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	reference%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	reference%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	reference%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	reference%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	reference%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	reference%datainfo%putinfo%rights (string) (7.9.4.1.4)
non_timed (2097)	reference%non_timed (ref_nt) (7.9.4.1.310)
zerod_real (2354)	reference%non_timed%zerod_real (ref_nt_0dr) (7.9.4.1.313)
ref1 (2357)	reference%non_timed%zerod_real%ref1 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref1%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref1%description (string) (7.9.4.1.4)
ref2 (2357)	reference%non_timed%zerod_real%ref2 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref2%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref2%description (string) (7.9.4.1.4)
ref3 (2357)	reference%non_timed%zerod_real%ref3 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref3%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref3%description (string) (7.9.4.1.4)
ref4 (2357)	reference%non_timed%zerod_real%ref4 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref4%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref4%description (string) (7.9.4.1.4)
ref5 (2357)	reference%non_timed%zerod_real%ref5 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref5%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref5%description (string) (7.9.4.1.4)
ref6 (2357)	reference%non_timed%zerod_real%ref6 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref6%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref6%description (string) (7.9.4.1.4)
ref7 (2357)	reference%non_timed%zerod_real%ref7 (ref_nt_0dr_ref) (7.9.4.1.314)
value (2358)	reference%non_timed%zerod_real%ref7%value (float) (7.9.4.1.2)
description (2358)	reference%non_timed%zerod_real%ref7%description (string) (7.9.4.1.4)
zerod_int (2354)	reference%non_timed%zerod_int (ref_nt_0di) (7.9.4.1.311)
ref1 (2355)	reference%non_timed%zerod_int%ref1 (ref_nt_0di_ref) (7.9.4.1.312)
value (2356)	reference%non_timed%zerod_int%ref1%value (integer) (7.9.4.1.3)
description (2356)	reference%non_timed%zerod_int%ref1%description (string) (7.9.4.1.4)
ref2 (2355)	reference%non_timed%zerod_int%ref2 (ref_nt_0di_ref) (7.9.4.1.312)
value (2356)	reference%non_timed%zerod_int%ref2%value (integer) (7.9.4.1.3)
description (2356)	reference%non_timed%zerod_int%ref2%description (string) (7.9.4.1.4)
ref3 (2355)	reference%non_timed%zerod_int%ref3 (ref_nt_0di_ref) (7.9.4.1.312)
value (2356)	reference%non_timed%zerod_int%ref3%value (integer) (7.9.4.1.3)
description (2356)	reference%non_timed%zerod_int%ref3%description (string) (7.9.4.1.4)
ref4 (2355)	reference%non_timed%zerod_int%ref4 (ref_nt_0di_ref) (7.9.4.1.312)
value (2356)	reference%non_timed%zerod_int%ref4%value (integer) (7.9.4.1.3)
description (2356)	reference%non_timed%zerod_int%ref4%description (string) (7.9.4.1.4)
zerod_string (2354)	reference%non_timed%zerod_string (ref_nt_0ds) (7.9.4.1.315)
ref1 (2359)	reference%non_timed%zerod_string%ref1 (ref_nt_0ds_ref) (7.9.4.1.316)
value (2360)	reference%non_timed%zerod_string%ref1%value (string) (7.9.4.1.4)
description (2360)	reference%non_timed%zerod_string%ref1%description (string) (7.9.4.1.4)
ref2 (2359)	reference%non_timed%zerod_string%ref2 (ref_nt_0ds_ref) (7.9.4.1.316)
value (2360)	reference%non_timed%zerod_string%ref2%value (string) (7.9.4.1.4)

description (2360)	reference%non_timed%zerod_string%ref2%description (string) (7.9.4.1.4)
oned_real (2354)	reference%non_timed%oned_real (ref_nt_1dr) (7.9.4.1.319)
ref1 (2363)	reference%non_timed%oned_real%ref1 (ref_nt_1dr_ref) (7.9.4.1.320)
value (2364)	reference%non_timed%oned_real%ref1%value (vecflt_type) (7.9.4.1.14)
description (2364)	reference%non_timed%oned_real%ref1%description (string) (7.9.4.1.4)
ref2 (2363)	reference%non_timed%oned_real%ref2 (ref_nt_1dr_ref) (7.9.4.1.320)
value (2364)	reference%non_timed%oned_real%ref2%value (vecflt_type) (7.9.4.1.14)
description (2364)	reference%non_timed%oned_real%ref2%description (string) (7.9.4.1.4)
ref3 (2363)	reference%non_timed%oned_real%ref3 (ref_nt_1dr_ref) (7.9.4.1.320)
value (2364)	reference%non_timed%oned_real%ref3%value (vecflt_type) (7.9.4.1.14)
description (2364)	reference%non_timed%oned_real%ref3%description (string) (7.9.4.1.4)
ref4 (2363)	reference%non_timed%oned_real%ref4 (ref_nt_1dr_ref) (7.9.4.1.320)
value (2364)	reference%non_timed%oned_real%ref4%value (vecflt_type) (7.9.4.1.14)
description (2364)	reference%non_timed%oned_real%ref4%description (string) (7.9.4.1.4)
ref5 (2363)	reference%non_timed%oned_real%ref5 (ref_nt_1dr_ref) (7.9.4.1.320)
value (2364)	reference%non_timed%oned_real%ref5%value (vecflt_type) (7.9.4.1.14)
description (2364)	reference%non_timed%oned_real%ref5%description (string) (7.9.4.1.4)
oned_int (2354)	reference%non_timed%oned_int (ref_nt_1di) (7.9.4.1.317)
ref1 (2361)	reference%non_timed%oned_int%ref1 (ref_nt_1di_ref) (7.9.4.1.318)
value (2362)	reference%non_timed%oned_int%ref1%value (vecint_type) (7.9.4.1.15)
description (2362)	reference%non_timed%oned_int%ref1%description (string) (7.9.4.1.4)
ref2 (2361)	reference%non_timed%oned_int%ref2 (ref_nt_1di_ref) (7.9.4.1.318)
value (2362)	reference%non_timed%oned_int%ref2%value (vecint_type) (7.9.4.1.15)
description (2362)	reference%non_timed%oned_int%ref2%description (string) (7.9.4.1.4)
ref3 (2361)	reference%non_timed%oned_int%ref3 (ref_nt_1di_ref) (7.9.4.1.318)
value (2362)	reference%non_timed%oned_int%ref3%value (vecint_type) (7.9.4.1.15)
description (2362)	reference%non_timed%oned_int%ref3%description (string) (7.9.4.1.4)
ref4 (2361)	reference%non_timed%oned_int%ref4 (ref_nt_1di_ref) (7.9.4.1.318)
value (2362)	reference%non_timed%oned_int%ref4%value (vecint_type) (7.9.4.1.15)
description (2362)	reference%non_timed%oned_int%ref4%description (string) (7.9.4.1.4)
timed (2097)	reference%timed (ref_t) (7.9.4.1.321)
zerod_real (2365)	reference%timed%zerod_real (ref_t_0dr) (7.9.4.1.324)
ref1 (2368)	reference%timed%zerod_real%ref1 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref1%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref1%description (string) (7.9.4.1.4)
ref2 (2368)	reference%timed%zerod_real%ref2 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref2%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref2%description (string) (7.9.4.1.4)
ref3 (2368)	reference%timed%zerod_real%ref3 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref3%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref3%description (string) (7.9.4.1.4)
ref4 (2368)	reference%timed%zerod_real%ref4 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref4%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref4%description (string) (7.9.4.1.4)
ref5 (2368)	reference%timed%zerod_real%ref5 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref5%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref5%description (string) (7.9.4.1.4)
ref6 (2368)	reference%timed%zerod_real%ref6 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref6%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref6%description (string) (7.9.4.1.4)
ref7 (2368)	reference%timed%zerod_real%ref7 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref7%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref7%description (string) (7.9.4.1.4)
ref8 (2368)	reference%timed%zerod_real%ref8 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref8%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref8%description (string) (7.9.4.1.4)
ref9 (2368)	reference%timed%zerod_real%ref9 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref9%value (float) (7.9.4.1.2)
description (2369)	reference%timed%zerod_real%ref9%description (string) (7.9.4.1.4)
ref10 (2368)	reference%timed%zerod_real%ref10 (ref_t_0dr_ref) (7.9.4.1.325)
value (2369)	reference%timed%zerod_real%ref10%value (float) (7.9.4.1.2)

description (2369)	reference%timed%zerod_real%ref10%description (string) (7.9.4.1.4)
zerod_int (2365)	reference%timed%zerod_int (ref_t_0di) (7.9.4.1.322)
ref1 (2366)	reference%timed%zerod_int%ref1 (ref_t_0di_ref) (7.9.4.1.323)
value (2367)	reference%timed%zerod_int%ref1%value (integer) (7.9.4.1.3)
description (2367)	reference%timed%zerod_int%ref1%description (string) (7.9.4.1.4)
ref2 (2366)	reference%timed%zerod_int%ref2 (ref_t_0di_ref) (7.9.4.1.323)
value (2367)	reference%timed%zerod_int%ref2%value (integer) (7.9.4.1.3)
description (2367)	reference%timed%zerod_int%ref2%description (string) (7.9.4.1.4)
ref3 (2366)	reference%timed%zerod_int%ref3 (ref_t_0di_ref) (7.9.4.1.323)
value (2367)	reference%timed%zerod_int%ref3%value (integer) (7.9.4.1.3)
description (2367)	reference%timed%zerod_int%ref3%description (string) (7.9.4.1.4)
ref4 (2366)	reference%timed%zerod_int%ref4 (ref_t_0di_ref) (7.9.4.1.323)
value (2367)	reference%timed%zerod_int%ref4%value (integer) (7.9.4.1.3)
description (2367)	reference%timed%zerod_int%ref4%description (string) (7.9.4.1.4)
oned_real (2365)	reference%timed%oned_real (ref_t_1dr) (7.9.4.1.328)
ref1 (2372)	reference%timed%oned_real%ref1 (ref_t_1dr_ref) (7.9.4.1.329)
value (2373)	reference%timed%oned_real%ref1%value (vecflt_type) (7.9.4.1.14)
description (2373)	reference%timed%oned_real%ref1%description (string) (7.9.4.1.4)
ref2 (2372)	reference%timed%oned_real%ref2 (ref_t_1dr_ref) (7.9.4.1.329)
value (2373)	reference%timed%oned_real%ref2%value (vecflt_type) (7.9.4.1.14)
description (2373)	reference%timed%oned_real%ref2%description (string) (7.9.4.1.4)
ref3 (2372)	reference%timed%oned_real%ref3 (ref_t_1dr_ref) (7.9.4.1.329)
value (2373)	reference%timed%oned_real%ref3%value (vecflt_type) (7.9.4.1.14)
description (2373)	reference%timed%oned_real%ref3%description (string) (7.9.4.1.4)
ref4 (2372)	reference%timed%oned_real%ref4 (ref_t_1dr_ref) (7.9.4.1.329)
value (2373)	reference%timed%oned_real%ref4%value (vecflt_type) (7.9.4.1.14)
description (2373)	reference%timed%oned_real%ref4%description (string) (7.9.4.1.4)
ref5 (2372)	reference%timed%oned_real%ref5 (ref_t_1dr_ref) (7.9.4.1.329)
value (2373)	reference%timed%oned_real%ref5%value (vecflt_type) (7.9.4.1.14)
description (2373)	reference%timed%oned_real%ref5%description (string) (7.9.4.1.4)
oned_int (2365)	reference%timed%oned_int (ref_t_1di) (7.9.4.1.326)
ref1 (2370)	reference%timed%oned_int%ref1 (ref_t_1di_ref) (7.9.4.1.327)
value (2371)	reference%timed%oned_int%ref1%value (vecint_type) (7.9.4.1.15)
description (2371)	reference%timed%oned_int%ref1%description (string) (7.9.4.1.4)
ref2 (2370)	reference%timed%oned_int%ref2 (ref_t_1di_ref) (7.9.4.1.327)
value (2371)	reference%timed%oned_int%ref2%value (vecint_type) (7.9.4.1.15)
description (2371)	reference%timed%oned_int%ref2%description (string) (7.9.4.1.4)
ref3 (2370)	reference%timed%oned_int%ref3 (ref_t_1di_ref) (7.9.4.1.327)
value (2371)	reference%timed%oned_int%ref3%value (vecint_type) (7.9.4.1.15)
description (2371)	reference%timed%oned_int%ref3%description (string) (7.9.4.1.4)
ref4 (2370)	reference%timed%oned_int%ref4 (ref_t_1di_ref) (7.9.4.1.327)
value (2371)	reference%timed%oned_int%ref4%value (vecint_type) (7.9.4.1.15)
description (2371)	reference%timed%oned_int%ref4%description (string) (7.9.4.1.4)
time (2097)	reference%time (float) (7.9.4.1.2)

7.9.4.2.36 rfadiag

datainfo (2098)	rfadiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	rfadiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	rfadiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	rfadiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	rfadiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	rfadiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	rfadiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	rfadiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	rfadiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	rfadiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	rfadiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	rfadiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	rfadiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	rfadiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)

putinfo (2181)	rfadiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	rfadiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	rfadiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	rfadiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	rfadiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2098)	rfadiag%setup (rfasetup) (7.9.4.1.333)
position (2377)	rfadiag%setup%position (rzphi1Dexp) (7.9.4.1.343)
r (2387)	rfadiag%setup%position%r (exp1D) (7.9.4.1.197)
value (2241)	rfadiag%setup%position%r%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	rfadiag%setup%position%r%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	rfadiag%setup%position%r%relerror (vecflt_type) (7.9.4.1.14)
z (2387)	rfadiag%setup%position%z (exp1D) (7.9.4.1.197)
value (2241)	rfadiag%setup%position%z%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	rfadiag%setup%position%z%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	rfadiag%setup%position%z%relerror (vecflt_type) (7.9.4.1.14)
phi (2387)	rfadiag%setup%position%phi (exp1D) (7.9.4.1.197)
value (2241)	rfadiag%setup%position%phi%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	rfadiag%setup%position%phi%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	rfadiag%setup%position%phi%relerror (vecflt_type) (7.9.4.1.14)
measure (2098)	rfadiag%measure (rfameasure) (7.9.4.1.332)
ti (2376)	rfadiag%measure%ti (exp1D) (7.9.4.1.197)
value (2241)	rfadiag%measure%ti%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	rfadiag%measure%ti%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	rfadiag%measure%ti%relerror (vecflt_type) (7.9.4.1.14)
time (2098)	rfadiag%time (float) (7.9.4.1.2)

7.9.4.2.37 sawteeth

datainfo (2099)	sawteeth%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	sawteeth%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	sawteeth%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	sawteeth%datainfo%source (string) (7.9.4.1.4)
comment (2181)	sawteeth%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	sawteeth%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	sawteeth%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	sawteeth%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	sawteeth%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	sawteeth%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	sawteeth%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	sawteeth%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	sawteeth%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	sawteeth%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	sawteeth%datainfo%putinfo%rights (string) (7.9.4.1.4)
crash_trig (2099)	sawteeth%crash_trig (integer) (7.9.4.1.3)
composition (2099)	sawteeth%composition (composition) (7.9.4.1.100)
amn (2144)	sawteeth%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	sawteeth%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	sawteeth%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	sawteeth%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	sawteeth%composition%label (vecstring_type) (7.9.4.1.16)
rho_tor_norm (2099)	sawteeth%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2099)	sawteeth%rho_tor (vecflt_type) (7.9.4.1.14)
profiles1d (2099)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.4.1.348)
ne (2392)	sawteeth%profiles1d%ne (vecflt_type) (7.9.4.1.14)
ni (2392)	sawteeth%profiles1d%ni (matflt_type) (7.9.4.1.12)
te (2392)	sawteeth%profiles1d%te (vecflt_type) (7.9.4.1.14)
ti (2392)	sawteeth%profiles1d%ti (matflt_type) (7.9.4.1.12)

psi (2392)	sawteeth%profiles1d%psi (vecflt_type) (7.9.4.1.14)
phi (2392)	sawteeth%profiles1d%phi (vecflt_type) (7.9.4.1.14)
psistar (2392)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.4.1.14)
volume (2392)	sawteeth%profiles1d%volume (vecflt_type) (7.9.4.1.14)
q (2392)	sawteeth%profiles1d%q (vecflt_type) (7.9.4.1.14)
diags (2099)	sawteeth%diags (sawteeth_diags) (7.9.4.1.347)
shear1 (2391)	sawteeth%diags%shear1 (float) (7.9.4.1.2)
rhotorn_q1 (2391)	sawteeth%diags%rhotorn_q1 (float) (7.9.4.1.2)
rhotorn_inv (2391)	sawteeth%diags%rhotorn_inv (float) (7.9.4.1.2)
rhotorn_mix (2391)	sawteeth%diags%rhotorn_mix (float) (7.9.4.1.2)
codeparam (2099)	sawteeth%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	sawteeth%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	sawteeth%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	sawteeth%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	sawteeth%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	sawteeth%codeparam%output_flag (integer) (7.9.4.1.3)
time (2099)	sawteeth%time (float) (7.9.4.1.2)

7.9.4.2.38 scenario

datainfo (2100)	scenario%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	scenario%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	scenario%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	scenario%datainfo%source (string) (7.9.4.1.4)
comment (2181)	scenario%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	scenario%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	scenario%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	scenario%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	scenario%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	scenario%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	scenario%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	scenario%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	scenario%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	scenario%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	scenario%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	scenario%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	scenario%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	scenario%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	scenario%datainfo%putinfo%rights (string) (7.9.4.1.4)
centre (2100)	scenario%centre (scenario_centre) (7.9.4.1.349)
te0 (2393)	scenario%centre%te0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%te0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%te0%source (string) (7.9.4.1.4)
ti0 (2393)	scenario%centre%ti0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%ti0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%ti0%source (string) (7.9.4.1.4)
ne0 (2393)	scenario%centre%ne0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%ne0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%ne0%source (string) (7.9.4.1.4)
ni0 (2393)	scenario%centre%ni0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%ni0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%ni0%source (string) (7.9.4.1.4)
shift0 (2393)	scenario%centre%shift0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%shift0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%shift0%source (string) (7.9.4.1.4)
psi0 (2393)	scenario%centre%psi0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%psi0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%psi0%source (string) (7.9.4.1.4)
phi0 (2393)	scenario%centre%phi0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%phi0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%phi0%source (string) (7.9.4.1.4)

q0 (2393)	scenario%centre%q0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%q0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%q0%source (string) (7.9.4.1.4)
Rmag (2393)	scenario%centre%Rmag (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%Rmag%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%Rmag%source (string) (7.9.4.1.4)
Zmag (2393)	scenario%centre%Zmag (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%Zmag%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%Zmag%source (string) (7.9.4.1.4)
vtor_0 (2393)	scenario%centre%vtor_0 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%centre%vtor_0%value (float) (7.9.4.1.2)
source (2410)	scenario%centre%vtor_0%source (string) (7.9.4.1.4)
composition (2100)	scenario%composition (scenario_composition) (7.9.4.1.350)
amn (2394)	scenario%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2394)	scenario%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2394)	scenario%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2394)	scenario%composition%imp_flag (vecint_type) (7.9.4.1.15)
rot_imp_flag (2394)	scenario%composition%rot_imp_flag (vecint_type) (7.9.4.1.15)
pellet_amn (2394)	scenario%composition%pellet_amn (vecflt_type) (7.9.4.1.14)
pellet_zn (2394)	scenario%composition%pellet_zn (vecflt_type) (7.9.4.1.14)
nbi_amn (2394)	scenario%composition%nbi_amn (vecflt_type) (7.9.4.1.14)
nbi_zn (2394)	scenario%composition%nbi_zn (vecflt_type) (7.9.4.1.14)
configs (2100)	scenario%configs (scenario_configuration) (7.9.4.1.351)
config (2395)	scenario%configs%config (scenario_int) (7.9.4.1.358)
value (2402)	scenario%configs%config%value (integer) (7.9.4.1.3)
source (2402)	scenario%configs%config%source (string) (7.9.4.1.4)
lmode_sc (2395)	scenario%configs%lmode_sc (string) (7.9.4.1.4)
hmode_sc (2395)	scenario%configs%hmode_sc (string) (7.9.4.1.4)
core_sc (2395)	scenario%configs%core_sc (string) (7.9.4.1.4)
pedestal_sc (2395)	scenario%configs%pedestal_sc (string) (7.9.4.1.4)
helium_sc (2395)	scenario%configs%helium_sc (string) (7.9.4.1.4)
impurity_sc (2395)	scenario%configs%impurity_sc (string) (7.9.4.1.4)
l2h_sc (2395)	scenario%configs%l2h_sc (string) (7.9.4.1.4)
tor_rot_sc (2395)	scenario%configs%tor_rot_sc (string) (7.9.4.1.4)
wall_mat (2395)	scenario%configs%wall_mat (string) (7.9.4.1.4)
evap_mat (2395)	scenario%configs%evap_mat (string) (7.9.4.1.4)
lim_mat (2395)	scenario%configs%lim_mat (string) (7.9.4.1.4)
div_mat (2395)	scenario%configs%div_mat (string) (7.9.4.1.4)
coordinate (2395)	scenario%configs%coordinate (string) (7.9.4.1.4)
ecrh_freq (2395)	scenario%configs%ecrh_freq (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%ecrh_freq%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%ecrh_freq%source (string) (7.9.4.1.4)
ecrh_loc (2395)	scenario%configs%ecrh_loc (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%ecrh_loc%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%ecrh_loc%source (string) (7.9.4.1.4)
ecrh_mode (2395)	scenario%configs%ecrh_mode (scenario_int) (7.9.4.1.358)
value (2402)	scenario%configs%ecrh_mode%value (integer) (7.9.4.1.3)
source (2402)	scenario%configs%ecrh_mode%source (string) (7.9.4.1.4)
ecrh_tor_ang (2395)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%ecrh_tor_ang%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%ecrh_tor_ang%source (string) (7.9.4.1.4)
ecrh_pol_ang (2395)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%ecrh_pol_ang%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%ecrh_pol_ang%source (string) (7.9.4.1.4)
ecrh_harm (2395)	scenario%configs%ecrh_harm (scenario_int) (7.9.4.1.358)
value (2402)	scenario%configs%ecrh_harm%value (integer) (7.9.4.1.3)
source (2402)	scenario%configs%ecrh_harm%source (string) (7.9.4.1.4)
enbi (2395)	scenario%configs%enbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%enbi%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%enbi%source (string) (7.9.4.1.4)
r_nbi (2395)	scenario%configs%r_nbi (scenario_ref) (7.9.4.1.366)

value (2410)	scenario%configs%r_nbi%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%r_nbi%source (string) (7.9.4.1.4)
grad_b_drift (2395)	scenario%configs%grad_b_drift (scenario_int) (7.9.4.1.358)
value (2402)	scenario%configs%grad_b_drift%value (integer) (7.9.4.1.3)
source (2402)	scenario%configs%grad_b_drift%source (string) (7.9.4.1.4)
icrh_freq (2395)	scenario%configs%icrh_freq (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%icrh_freq%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%icrh_freq%source (string) (7.9.4.1.4)
icrh_scheme (2395)	scenario%configs%icrh_scheme (string) (7.9.4.1.4)
icrh_phase (2395)	scenario%configs%icrh_phase (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%icrh_phase%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%icrh_phase%source (string) (7.9.4.1.4)
LH_freq (2395)	scenario%configs%LH_freq (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%LH_freq%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%LH_freq%source (string) (7.9.4.1.4)
LH_npar (2395)	scenario%configs%LH_npar (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%LH_npar%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%LH_npar%source (string) (7.9.4.1.4)
pellet_ang (2395)	scenario%configs%pellet_ang (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%pellet_ang%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%pellet_ang%source (string) (7.9.4.1.4)
pellet_v (2395)	scenario%configs%pellet_v (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%pellet_v%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%pellet_v%source (string) (7.9.4.1.4)
pellet_nba (2395)	scenario%configs%pellet_nba (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%configs%pellet_nba%value (float) (7.9.4.1.2)
source (2410)	scenario%configs%pellet_nba%source (string) (7.9.4.1.4)
confinement (2100)	scenario%confinement (scenario_confinement) (7.9.4.1.352)
tau_e (2396)	scenario%confinement%tau_e (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_e%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_e%source (string) (7.9.4.1.4)
tau_l_sc (2396)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_l_sc%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_l_sc%source (string) (7.9.4.1.4)
tau_h_sc (2396)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_h_sc%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_h_sc%source (string) (7.9.4.1.4)
tau_he (2396)	scenario%confinement%tau_he (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_he%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_he%source (string) (7.9.4.1.4)
tau_e_ee (2396)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_e_ee%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_e_ee%source (string) (7.9.4.1.4)
tau_e_ii (2396)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_e_ii%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_e_ii%source (string) (7.9.4.1.4)
tau_e_ei (2396)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_e_ei%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_e_ei%source (string) (7.9.4.1.4)
tau_cur_diff (2396)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_cur_diff%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_cur_diff%source (string) (7.9.4.1.4)
tau_i_rol (2396)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%confinement%tau_i_rol%value (float) (7.9.4.1.2)
source (2410)	scenario%confinement%tau_i_rol%source (string) (7.9.4.1.4)
currents (2100)	scenario%currents (scenario_currents) (7.9.4.1.353)
RR (2397)	scenario%currents%RR (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%RR%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%RR%source (string) (7.9.4.1.4)
i_align (2397)	scenario%currents%i_align (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_align%value (float) (7.9.4.1.2)

source (2410)	scenario%currents%i_align%source (string) (7.9.4.1.4)
i_boot (2397)	scenario%currents%i_boot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_boot%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_boot%source (string) (7.9.4.1.4)
i_cd_tot (2397)	scenario%currents%i_cd_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_cd_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_cd_tot%source (string) (7.9.4.1.4)
i_eccd (2397)	scenario%currents%i_eccd (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_eccd%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_eccd%source (string) (7.9.4.1.4)
i_fast_ion (2397)	scenario%currents%i_fast_ion (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_fast_ion%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_fast_ion%source (string) (7.9.4.1.4)
i_fwcd (2397)	scenario%currents%i_fwcd (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_fwcd%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_fwcd%source (string) (7.9.4.1.4)
i_lhcd (2397)	scenario%currents%i_lhcd (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_lhcd%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_lhcd%source (string) (7.9.4.1.4)
i_nbicd (2397)	scenario%currents%i_nbicd (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_nbicd%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_nbicd%source (string) (7.9.4.1.4)
i_ni_tot (2397)	scenario%currents%i_ni_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_ni_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_ni_tot%source (string) (7.9.4.1.4)
i_ohm (2397)	scenario%currents%i_ohm (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_ohm%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_ohm%source (string) (7.9.4.1.4)
i_par (2397)	scenario%currents%i_par (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_par%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_par%source (string) (7.9.4.1.4)
i_runaway (2397)	scenario%currents%i_runaway (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%i_runaway%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%i_runaway%source (string) (7.9.4.1.4)
v_loop (2397)	scenario%currents%v_loop (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%v_loop%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%v_loop%source (string) (7.9.4.1.4)
v_meas (2397)	scenario%currents%v_meas (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%currents%v_meas%value (float) (7.9.4.1.2)
source (2410)	scenario%currents%v_meas%source (string) (7.9.4.1.4)
edge (2100)	scenario%edge (scenario_edge) (7.9.4.1.354)
te_edge (2398)	scenario%edge%te_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%te_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%te_edge%source (string) (7.9.4.1.4)
ti_edge (2398)	scenario%edge%ti_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%ti_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%ti_edge%source (string) (7.9.4.1.4)
ne_edge (2398)	scenario%edge%ne_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%ne_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%ne_edge%source (string) (7.9.4.1.4)
ni_edge (2398)	scenario%edge%ni_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%ni_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%ni_edge%source (string) (7.9.4.1.4)
psi_edge (2398)	scenario%edge%psi_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%psi_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%psi_edge%source (string) (7.9.4.1.4)
phi_edge (2398)	scenario%edge%phi_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%phi_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%phi_edge%source (string) (7.9.4.1.4)
rho_edge (2398)	scenario%edge%rho_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%rho_edge%value (float) (7.9.4.1.2)

source (2410)	scenario%edge%rho_edge%source (string) (7.9.4.1.4)
drho_edge_dt (2398)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%drho_edge_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%drho_edge_dt%source (string) (7.9.4.1.4)
q_edge (2398)	scenario%edge%q_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%q_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%q_edge%source (string) (7.9.4.1.4)
neutral_flux (2398)	scenario%edge%neutral_flux (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%neutral_flux%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%neutral_flux%source (string) (7.9.4.1.4)
phi_plasma (2398)	scenario%edge%phi_plasma (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%phi_plasma%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%phi_plasma%source (string) (7.9.4.1.4)
vtor_edge (2398)	scenario%edge%vtor_edge (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%edge%vtor_edge%value (float) (7.9.4.1.2)
source (2410)	scenario%edge%vtor_edge%source (string) (7.9.4.1.4)
energy (2100)	scenario%energy (scenario_energy) (7.9.4.1.355)
w_tot (2399)	scenario%energy%w_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%w_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%w_tot%source (string) (7.9.4.1.4)
w_b_pol (2399)	scenario%energy%w_b_pol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%w_b_pol%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%w_b_pol%source (string) (7.9.4.1.4)
w_dia (2399)	scenario%energy%w_dia (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%w_dia%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%w_dia%source (string) (7.9.4.1.4)
dwdia_dt (2399)	scenario%energy%dwdia_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%dwdia_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%dwdia_dt%source (string) (7.9.4.1.4)
w_b_tor_pla (2399)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%w_b_tor_pla%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%w_b_tor_pla%source (string) (7.9.4.1.4)
w_th (2399)	scenario%energy%w_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%w_th%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%w_th%source (string) (7.9.4.1.4)
dwtot_dt (2399)	scenario%energy%dwtot_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%dwtot_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%dwtot_dt%source (string) (7.9.4.1.4)
dwbpol_dt (2399)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%dwbpol_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%dwbpol_dt%source (string) (7.9.4.1.4)
dwbtorpla_dt (2399)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%dwbtorpla_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%dwbtorpla_dt%source (string) (7.9.4.1.4)
dwth_dt (2399)	scenario%energy%dwth_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%dwth_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%dwth_dt%source (string) (7.9.4.1.4)
esup_icrhtot (2399)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_icrhtot%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%esup_icrhtot%source (string) (7.9.4.1.4)
esup_icrhper (2399)	scenario%energy%esup_icrhper (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_icrhper%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%esup_icrhper%source (string) (7.9.4.1.4)
esup_nbitot (2399)	scenario%energy%esup_nbitot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_nbitot%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%esup_nbitot%source (string) (7.9.4.1.4)
esup_nbiperp (2399)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_nbiperp%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%esup_nbiperp%source (string) (7.9.4.1.4)
esup_lhcd (2399)	scenario%energy%esup_lhcd (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_lhcd%value (float) (7.9.4.1.2)

source (2410)	scenario%energy%esup_lhcd%source (string) (7.9.4.1.4)
esup_alpha (2399)	scenario%energy%esup_alpha (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%energy%esup_alpha%value (float) (7.9.4.1.2)
source (2410)	scenario%energy%esup_alpha%source (string) (7.9.4.1.4)
eqgeometry (2100)	scenario%eqgeometry (eqgeometry) (7.9.4.1.191)
source (2235)	scenario%eqgeometry%source (string) (7.9.4.1.4)
boundarytype (2235)	scenario%eqgeometry%boundarytype (integer) (7.9.4.1.3)
boundary (2235)	scenario%eqgeometry%boundary(:) (rz1Dexp) (7.9.4.1.338)
r (2382)	scenario%eqgeometry%boundary(:)%r (vecflt_type) (7.9.4.1.14)
z (2382)	scenario%eqgeometry%boundary(:)%z (vecflt_type) (7.9.4.1.14)
geom_axis (2235)	scenario%eqgeometry%geom_axis (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%geom_axis%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%geom_axis%z (float) (7.9.4.1.2)
a_minor (2235)	scenario%eqgeometry%a_minor (float) (7.9.4.1.2)
elongation (2235)	scenario%eqgeometry%elongation (float) (7.9.4.1.2)
elong_upper (2235)	scenario%eqgeometry%elong_upper (float) (7.9.4.1.2)
elong_lower (2235)	scenario%eqgeometry%elong_lower (float) (7.9.4.1.2)
tria_upper (2235)	scenario%eqgeometry%tria_upper (float) (7.9.4.1.2)
tria_lower (2235)	scenario%eqgeometry%tria_lower (float) (7.9.4.1.2)
xpts (2235)	scenario%eqgeometry%xpts(:) (rz1Dexp) (7.9.4.1.338)
r (2382)	scenario%eqgeometry%xpts(:)%r (vecflt_type) (7.9.4.1.14)
z (2382)	scenario%eqgeometry%xpts(:)%z (vecflt_type) (7.9.4.1.14)
left_low_st (2235)	scenario%eqgeometry%left_low_st (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%left_low_st%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%left_low_st%z (float) (7.9.4.1.2)
right_low_st (2235)	scenario%eqgeometry%right_low_st (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%right_low_st%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%right_low_st%z (float) (7.9.4.1.2)
left_up_st (2235)	scenario%eqgeometry%left_up_st (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%left_up_st%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%left_up_st%z (float) (7.9.4.1.2)
right_up_st (2235)	scenario%eqgeometry%right_up_st (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%right_up_st%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%right_up_st%z (float) (7.9.4.1.2)
active_limit (2235)	scenario%eqgeometry%active_limit (rz0D) (7.9.4.1.335)
r (2379)	scenario%eqgeometry%active_limit%r (float) (7.9.4.1.2)
z (2379)	scenario%eqgeometry%active_limit%z (float) (7.9.4.1.2)
ang_lcms_upo (2235)	scenario%eqgeometry%ang_lcms_upo (float) (7.9.4.1.2)
ang_lcms_upi (2235)	scenario%eqgeometry%ang_lcms_upi (float) (7.9.4.1.2)
ang_lcms_lwo (2235)	scenario%eqgeometry%ang_lcms_lwo (float) (7.9.4.1.2)
ang_lcms_lwi (2235)	scenario%eqgeometry%ang_lcms_lwi (float) (7.9.4.1.2)
global_param (2100)	scenario%global_param (scenario_global) (7.9.4.1.356)
ip (2400)	scenario%global_param%ip (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%ip%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%ip%source (string) (7.9.4.1.4)
dip_dt (2400)	scenario%global_param%dip_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%dip_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%dip_dt%source (string) (7.9.4.1.4)
beta_pol (2400)	scenario%global_param%beta_pol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_pol%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_pol%source (string) (7.9.4.1.4)
beta_tor (2400)	scenario%global_param%beta_tor (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_tor%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_tor%source (string) (7.9.4.1.4)
beta_normal (2400)	scenario%global_param%beta_normal (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_normal%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_normal%source (string) (7.9.4.1.4)
li (2400)	scenario%global_param%li (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%li%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%li%source (string) (7.9.4.1.4)
volume (2400)	scenario%global_param%volume (scenario_ref) (7.9.4.1.366)

value (2410)	scenario%global_param%volume%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%volume%source (string) (7.9.4.1.4)
area_pol (2400)	scenario%global_param%area_pol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%area_pol%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%area_pol%source (string) (7.9.4.1.4)
area_ext (2400)	scenario%global_param%area_ext (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%area_ext%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%area_ext%source (string) (7.9.4.1.4)
len_sepa (2400)	scenario%global_param%len_sepa (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%len_sepa%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%len_sepa%source (string) (7.9.4.1.4)
beta_pol_th (2400)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_pol_th%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_pol_th%source (string) (7.9.4.1.4)
beta_tor_th (2400)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_tor_th%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_tor_th%source (string) (7.9.4.1.4)
beta_n_th (2400)	scenario%global_param%beta_n_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%beta_n_th%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%beta_n_th%source (string) (7.9.4.1.4)
disruption (2400)	scenario%global_param%disruption (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%disruption%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%disruption%source (string) (7.9.4.1.4)
mode_h (2400)	scenario%global_param%mode_h (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%mode_h%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%mode_h%source (string) (7.9.4.1.4)
s_alpha (2400)	scenario%global_param%s_alpha (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%global_param%s_alpha%value (float) (7.9.4.1.2)
source (2410)	scenario%global_param%s_alpha%source (string) (7.9.4.1.4)
heat_power (2100)	scenario%heat_power (scenario_heat_power) (7.9.4.1.357)
plh (2401)	scenario%heat_power%plh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%plh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%plh%source (string) (7.9.4.1.4)
pohmic (2401)	scenario%heat_power%pohmic (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pohmic%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pohmic%source (string) (7.9.4.1.4)
picrh (2401)	scenario%heat_power%picrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%picrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%picrh%source (string) (7.9.4.1.4)
pecrh (2401)	scenario%heat_power%pecrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pecrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pecrh%source (string) (7.9.4.1.4)
pnbi (2401)	scenario%heat_power%pnbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pnbi%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pnbi%source (string) (7.9.4.1.4)
pnbi_co_cur (2401)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.4.1.4)
pnbi_counter (2401)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pnbi_counter%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pnbi_counter%source (string) (7.9.4.1.4)
plh_th (2401)	scenario%heat_power%plh_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%plh_th%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%plh_th%source (string) (7.9.4.1.4)
picrh_th (2401)	scenario%heat_power%picrh_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%picrh_th%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%picrh_th%source (string) (7.9.4.1.4)
pecrh_th (2401)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pecrh_th%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pecrh_th%source (string) (7.9.4.1.4)
pnbi_th (2401)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.4.1.366)

value (2410)	scenario%heat_power%pnbi_th%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pnbi_th%source (string) (7.9.4.1.4)
ploss_icrh (2401)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%ploss_icrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%ploss_icrh%source (string) (7.9.4.1.4)
ploss_nbi (2401)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%ploss_nbi%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%ploss_nbi%source (string) (7.9.4.1.4)
pbrem (2401)	scenario%heat_power%pbrem (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pbrem%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pbrem%source (string) (7.9.4.1.4)
pcyclo (2401)	scenario%heat_power%pcyclo (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pcyclo%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pcyclo%source (string) (7.9.4.1.4)
prad (2401)	scenario%heat_power%prad (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%prad%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%prad%source (string) (7.9.4.1.4)
pdd_fus (2401)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pdd_fus%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pdd_fus%source (string) (7.9.4.1.4)
pei (2401)	scenario%heat_power%pei (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pei%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pei%source (string) (7.9.4.1.4)
pel_tot (2401)	scenario%heat_power%pel_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pel_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pel_tot%source (string) (7.9.4.1.4)
pel_fus (2401)	scenario%heat_power%pel_fus (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pel_fus%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pel_fus%source (string) (7.9.4.1.4)
pel_icrh (2401)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pel_icrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pel_icrh%source (string) (7.9.4.1.4)
pel_nbi (2401)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pel_nbi%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pel_nbi%source (string) (7.9.4.1.4)
pfus_dt (2401)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pfus_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pfus_dt%source (string) (7.9.4.1.4)
ploss_fus (2401)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%ploss_fus%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%ploss_fus%source (string) (7.9.4.1.4)
pfus_nbi (2401)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pfus_nbi%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pfus_nbi%source (string) (7.9.4.1.4)
pfus_th (2401)	scenario%heat_power%pfus_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pfus_th%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pfus_th%source (string) (7.9.4.1.4)
padd_tot (2401)	scenario%heat_power%padd_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%padd_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%padd_tot%source (string) (7.9.4.1.4)
pion_tot (2401)	scenario%heat_power%pion_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pion_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pion_tot%source (string) (7.9.4.1.4)
pion_fus (2401)	scenario%heat_power%pion_fus (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pion_fus%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pion_fus%source (string) (7.9.4.1.4)
pion_icrh (2401)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pion_icrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pion_icrh%source (string) (7.9.4.1.4)
pion_nbi (2401)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pion_nbi%value (float) (7.9.4.1.2)

source (2410)	scenario%heat_power%pion_nbi%source (string) (7.9.4.1.4)
pioniz (2401)	scenario%heat_power%pioniz (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%pioniz%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%pioniz%source (string) (7.9.4.1.4)
ploss (2401)	scenario%heat_power%ploss (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%ploss%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%ploss%source (string) (7.9.4.1.4)
p_wth (2401)	scenario%heat_power%p_wth (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%p_wth%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%p_wth%source (string) (7.9.4.1.4)
p_w (2401)	scenario%heat_power%p_w (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%p_w%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%p_w%source (string) (7.9.4.1.4)
p_l2h_thr (2401)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%p_l2h_thr%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%p_l2h_thr%source (string) (7.9.4.1.4)
p_l2h_sc (2401)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%p_l2h_sc%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%p_l2h_sc%source (string) (7.9.4.1.4)
p_nbi_icrh (2401)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.4.1.2)
source (2410)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.4.1.4)
itb (2100)	scenario%itb (scenario_itb) (7.9.4.1.359)
q_min (2403)	scenario%itb%q_min (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%q_min%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%q_min%source (string) (7.9.4.1.4)
te_itb (2403)	scenario%itb%te_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%te_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%te_itb%source (string) (7.9.4.1.4)
ti_itb (2403)	scenario%itb%ti_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%ti_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%ti_itb%source (string) (7.9.4.1.4)
ne_itb (2403)	scenario%itb%ne_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%ne_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%ne_itb%source (string) (7.9.4.1.4)
ni_itb (2403)	scenario%itb%ni_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%ni_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%ni_itb%source (string) (7.9.4.1.4)
psi_itb (2403)	scenario%itb%psi_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%psi_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%psi_itb%source (string) (7.9.4.1.4)
phi_itb (2403)	scenario%itb%phi_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%phi_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%phi_itb%source (string) (7.9.4.1.4)
rho_itb (2403)	scenario%itb%rho_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%rho_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%rho_itb%source (string) (7.9.4.1.4)
h_itb (2403)	scenario%itb%h_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%h_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%h_itb%source (string) (7.9.4.1.4)
width_itb (2403)	scenario%itb%width_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%width_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%width_itb%source (string) (7.9.4.1.4)
vtor_itb (2403)	scenario%itb%vtor_itb (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%itb%vtor_itb%value (float) (7.9.4.1.2)
source (2410)	scenario%itb%vtor_itb%source (string) (7.9.4.1.4)
itb_type (2403)	scenario%itb%itb_type (scenario_int) (7.9.4.1.358)
value (2402)	scenario%itb%itb_type%value (integer) (7.9.4.1.3)
source (2402)	scenario%itb%itb_type%source (string) (7.9.4.1.4)
lim_div_wall (2100)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.4.1.360)
te_lim_div (2404)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.4.1.366)

value (2410)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.4.1.4)
ti_lim_div (2404)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.4.1.4)
ne_lim_div (2404)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.4.1.4)
ni_lim_div (2404)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.4.1.4)
p_peak_div (2404)	scenario%lim_div_wall%p_peak_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%p_peak_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%p_peak_div%source (string) (7.9.4.1.4)
surf_temp (2404)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%surf_temp%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%surf_temp%source (string) (7.9.4.1.4)
p_lim_div (2404)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.4.1.4)
p_rad_div (2404)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.4.1.4)
wall_temp (2404)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%wall_temp%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%wall_temp%source (string) (7.9.4.1.4)
wall_state (2404)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%wall_state%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%wall_state%source (string) (7.9.4.1.4)
detach_state (2404)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%detach_state%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%detach_state%source (string) (7.9.4.1.4)
pump_flux (2404)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%lim_div_wall%pump_flux%value (float) (7.9.4.1.2)
source (2410)	scenario%lim_div_wall%pump_flux%source (string) (7.9.4.1.4)
line_ave (2100)	scenario%line_ave (scenario_line_ave) (7.9.4.1.361)
ne_line (2405)	scenario%line_ave%ne_line (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%line_ave%ne_line%value (float) (7.9.4.1.2)
source (2410)	scenario%line_ave%ne_line%source (string) (7.9.4.1.4)
zeff_line (2405)	scenario%line_ave%zeff_line (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%line_ave%zeff_line%value (float) (7.9.4.1.2)
source (2410)	scenario%line_ave%zeff_line%source (string) (7.9.4.1.4)
ne_zeff_line (2405)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%line_ave%ne_zeff_line%value (float) (7.9.4.1.2)
source (2410)	scenario%line_ave%ne_zeff_line%source (string) (7.9.4.1.4)
dne_line_dt (2405)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%line_ave%dne_line_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%line_ave%dne_line_dt%source (string) (7.9.4.1.4)
neutron (2100)	scenario%neutron (scenario_neutron) (7.9.4.1.362)
ndd_tot (2406)	scenario%neutron%ndd_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndd_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndd_tot%source (string) (7.9.4.1.4)
ndd_th (2406)	scenario%neutron%ndd_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndd_th%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndd_th%source (string) (7.9.4.1.4)
ndd_nbi_th (2406)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndd_nbi_th%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndd_nbi_th%source (string) (7.9.4.1.4)
ndd_nbi_nbi (2406)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.4.1.4)

ndt_tot (2406)	scenario%neutron%ndt_tot (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndt_tot%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndt_tot%source (string) (7.9.4.1.4)
ndt_th (2406)	scenario%neutron%ndt_th (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%neutron%ndt_th%value (float) (7.9.4.1.2)
source (2410)	scenario%neutron%ndt_th%source (string) (7.9.4.1.4)
ninety_five (2100)	scenario%ninety_five (scenario_ninety_five) (7.9.4.1.363)
q_95 (2407)	scenario%ninety_five%q_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%q_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%q_95%source (string) (7.9.4.1.4)
elong_95 (2407)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%elong_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%elong_95%source (string) (7.9.4.1.4)
tria_95 (2407)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%tria_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%tria_95%source (string) (7.9.4.1.4)
tria_up_95 (2407)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%tria_up_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%tria_up_95%source (string) (7.9.4.1.4)
tria_lo_95 (2407)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%tria_lo_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%tria_lo_95%source (string) (7.9.4.1.4)
te_95 (2407)	scenario%ninety_five%te_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%te_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%te_95%source (string) (7.9.4.1.4)
ti_95 (2407)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%ti_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%ti_95%source (string) (7.9.4.1.4)
ne_95 (2407)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%ne_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%ne_95%source (string) (7.9.4.1.4)
ni_95 (2407)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%ni_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%ni_95%source (string) (7.9.4.1.4)
phi_95 (2407)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%phi_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%phi_95%source (string) (7.9.4.1.4)
rho_95 (2407)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%rho_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%rho_95%source (string) (7.9.4.1.4)
vtor_95 (2407)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%ninety_five%vtor_95%value (float) (7.9.4.1.2)
source (2410)	scenario%ninety_five%vtor_95%source (string) (7.9.4.1.4)
pedestal (2100)	scenario%pedestal (scenario_pedestal) (7.9.4.1.364)
te_ped (2408)	scenario%pedestal%te_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%te_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%te_ped%source (string) (7.9.4.1.4)
ti_ped (2408)	scenario%pedestal%ti_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%ti_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%ti_ped%source (string) (7.9.4.1.4)
ne_ped (2408)	scenario%pedestal%ne_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%ne_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%ne_ped%source (string) (7.9.4.1.4)
ni_ped (2408)	scenario%pedestal%ni_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%ni_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%ni_ped%source (string) (7.9.4.1.4)
psi_ped (2408)	scenario%pedestal%psi_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%psi_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%psi_ped%source (string) (7.9.4.1.4)
phi_ped (2408)	scenario%pedestal%phi_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%phi_ped%value (float) (7.9.4.1.2)

source (2410)	scenario%pedestal%phi_ped%source (string) (7.9.4.1.4)
rho_ped (2408)	scenario%pedestal%rho_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%rho_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%rho_ped%source (string) (7.9.4.1.4)
q_ped (2408)	scenario%pedestal%q_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%q_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%q_ped%source (string) (7.9.4.1.4)
pressure_ped (2408)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%pressure_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%pressure_ped%source (string) (7.9.4.1.4)
vtor_ped (2408)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%pedestal%vtor_ped%value (float) (7.9.4.1.2)
source (2410)	scenario%pedestal%vtor_ped%source (string) (7.9.4.1.4)
references (2100)	scenario%references (scenario_references) (7.9.4.1.367)
plh (2411)	scenario%references%plh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%plh%value (float) (7.9.4.1.2)
source (2410)	scenario%references%plh%source (string) (7.9.4.1.4)
picrh (2411)	scenario%references%picrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%picrh%value (float) (7.9.4.1.2)
source (2410)	scenario%references%picrh%source (string) (7.9.4.1.4)
pecrh (2411)	scenario%references%pecrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%pecrh%value (float) (7.9.4.1.2)
source (2410)	scenario%references%pecrh%source (string) (7.9.4.1.4)
pnbi (2411)	scenario%references%pnbi (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%pnbi%value (float) (7.9.4.1.2)
source (2410)	scenario%references%pnbi%source (string) (7.9.4.1.4)
ip (2411)	scenario%references%ip (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%ip%value (float) (7.9.4.1.2)
source (2410)	scenario%references%ip%source (string) (7.9.4.1.4)
bvac_r (2411)	scenario%references%bvac_r (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%bvac_r%value (float) (7.9.4.1.2)
source (2410)	scenario%references%bvac_r%source (string) (7.9.4.1.4)
zeffl (2411)	scenario%references%zeffl (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%zeffl%value (float) (7.9.4.1.2)
source (2410)	scenario%references%zeffl%source (string) (7.9.4.1.4)
nbar (2411)	scenario%references%nbar (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%nbar%value (float) (7.9.4.1.2)
source (2410)	scenario%references%nbar%source (string) (7.9.4.1.4)
xecrh (2411)	scenario%references%xecrh (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%xecrh%value (float) (7.9.4.1.2)
source (2410)	scenario%references%xecrh%source (string) (7.9.4.1.4)
pol_flux (2411)	scenario%references%pol_flux (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%pol_flux%value (float) (7.9.4.1.2)
source (2410)	scenario%references%pol_flux%source (string) (7.9.4.1.4)
enhancement (2411)	scenario%references%enhancement (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%enhancement%value (float) (7.9.4.1.2)
source (2410)	scenario%references%enhancement%source (string) (7.9.4.1.4)
isotopic (2411)	scenario%references%isotopic (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%isotopic%value (float) (7.9.4.1.2)
source (2410)	scenario%references%isotopic%source (string) (7.9.4.1.4)
nbi_td_ratio (2411)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%nbi_td_ratio%value (float) (7.9.4.1.2)
source (2410)	scenario%references%nbi_td_ratio%source (string) (7.9.4.1.4)
gas_puff (2411)	scenario%references%gas_puff (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%references%gas_puff%value (float) (7.9.4.1.2)
source (2410)	scenario%references%gas_puff%source (string) (7.9.4.1.4)
reactor (2100)	scenario%reactor (scenario_reactor) (7.9.4.1.365)
pnetwork (2409)	scenario%reactor%pnetwork (float) (7.9.4.1.2)
sol (2100)	scenario%sol (scenario_sol) (7.9.4.1.368)
l_te_sol (2412)	scenario%sol%l_te_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_te_sol%value (float) (7.9.4.1.2)

source (2410)	scenario%sol%l_te_sol%source (string) (7.9.4.1.4)
l_ti_sol (2412)	scenario%sol%l_ti_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_ti_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%l_ti_sol%source (string) (7.9.4.1.4)
l_ne_sol (2412)	scenario%sol%l_ne_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_ne_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%l_ne_sol%source (string) (7.9.4.1.4)
l_ni_sol (2412)	scenario%sol%l_ni_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_ni_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%l_ni_sol%source (string) (7.9.4.1.4)
l_qe_sol (2412)	scenario%sol%l_qe_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_qe_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%l_qe_sol%source (string) (7.9.4.1.4)
l_qi_sol (2412)	scenario%sol%l_qi_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%l_qi_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%l_qi_sol%source (string) (7.9.4.1.4)
p_rad_sol (2412)	scenario%sol%p_rad_sol (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%p_rad_sol%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%p_rad_sol%source (string) (7.9.4.1.4)
gas_puff (2412)	scenario%sol%gas_puff (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%sol%gas_puff%value (float) (7.9.4.1.2)
source (2410)	scenario%sol%gas_puff%source (string) (7.9.4.1.4)
vol_ave (2100)	scenario%vol_ave (scenario_vol_ave) (7.9.4.1.369)
te_ave (2413)	scenario%vol_ave%te_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%te_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%te_ave%source (string) (7.9.4.1.4)
ti_ave (2413)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%ti_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%ti_ave%source (string) (7.9.4.1.4)
ne_ave (2413)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%ne_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%ne_ave%source (string) (7.9.4.1.4)
dne_ave_dt (2413)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.4.1.4)
ni_ave (2413)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%ni_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%ni_ave%source (string) (7.9.4.1.4)
zeff_ave (2413)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%zeff_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%zeff_ave%source (string) (7.9.4.1.4)
ti_o_te_ave (2413)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.4.1.4)
meff_ave (2413)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%meff_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%meff_ave%source (string) (7.9.4.1.4)
pellet_flux (2413)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%pellet_flux%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%pellet_flux%source (string) (7.9.4.1.4)
nions_ave (2413)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.4.1.14)
omega_ave (2413)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.4.1.366)
value (2410)	scenario%vol_ave%omega_ave%value (float) (7.9.4.1.2)
source (2410)	scenario%vol_ave%omega_ave%source (string) (7.9.4.1.4)
codeparam (2100)	scenario%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	scenario%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	scenario%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	scenario%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	scenario%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	scenario%codeparam%output_flag (integer) (7.9.4.1.3)
time (2100)	scenario%time (float) (7.9.4.1.2)

7.9.4.2.39 summary

datainfo (2101)	summary%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	summary%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	summary%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	summary%datainfo%source (string) (7.9.4.1.4)
comment (2181)	summary%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	summary%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	summary%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	summary%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	summary%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	summary%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	summary%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	summary%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	summary%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	summary%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	summary%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	summary%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	summary%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	summary%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	summary%datainfo%putinfo%rights (string) (7.9.4.1.4)
ip (2101)	summary%ip (reduced) (7.9.4.1.309)
value (2353)	summary%ip%value (float) (7.9.4.1.2)
source (2353)	summary%ip%source (string) (7.9.4.1.4)
time (2353)	summary%ip%time (float) (7.9.4.1.2)
bvac_r (2101)	summary%bvac_r (reduced) (7.9.4.1.309)
value (2353)	summary%bvac_r%value (float) (7.9.4.1.2)
source (2353)	summary%bvac_r%source (string) (7.9.4.1.4)
time (2353)	summary%bvac_r%time (float) (7.9.4.1.2)
geom_axis_r (2101)	summary%geom_axis_r (reduced) (7.9.4.1.309)
value (2353)	summary%geom_axis_r%value (float) (7.9.4.1.2)
source (2353)	summary%geom_axis_r%source (string) (7.9.4.1.4)
time (2353)	summary%geom_axis_r%time (float) (7.9.4.1.2)
a_minor (2101)	summary%a_minor (reduced) (7.9.4.1.309)
value (2353)	summary%a_minor%value (float) (7.9.4.1.2)
source (2353)	summary%a_minor%source (string) (7.9.4.1.4)
time (2353)	summary%a_minor%time (float) (7.9.4.1.2)
elongation (2101)	summary%elongation (reduced) (7.9.4.1.309)
value (2353)	summary%elongation%value (float) (7.9.4.1.2)
source (2353)	summary%elongation%source (string) (7.9.4.1.4)
time (2353)	summary%elongation%time (float) (7.9.4.1.2)
tria_lower (2101)	summary%tria_lower (reduced) (7.9.4.1.309)
value (2353)	summary%tria_lower%value (float) (7.9.4.1.2)
source (2353)	summary%tria_lower%source (string) (7.9.4.1.4)
time (2353)	summary%tria_lower%time (float) (7.9.4.1.2)
tria_upper (2101)	summary%tria_upper (reduced) (7.9.4.1.309)
value (2353)	summary%tria_upper%value (float) (7.9.4.1.2)
source (2353)	summary%tria_upper%source (string) (7.9.4.1.4)
time (2353)	summary%tria_upper%time (float) (7.9.4.1.2)
tev (2101)	summary%tev (reduced) (7.9.4.1.309)
value (2353)	summary%tev%value (float) (7.9.4.1.2)
source (2353)	summary%tev%source (string) (7.9.4.1.4)
time (2353)	summary%tev%time (float) (7.9.4.1.2)
tiv (2101)	summary%tiv (reduced) (7.9.4.1.309)
value (2353)	summary%tiv%value (float) (7.9.4.1.2)
source (2353)	summary%tiv%source (string) (7.9.4.1.4)
time (2353)	summary%tiv%time (float) (7.9.4.1.2)
nev (2101)	summary%nev (reduced) (7.9.4.1.309)
value (2353)	summary%nev%value (float) (7.9.4.1.2)
source (2353)	summary%nev%source (string) (7.9.4.1.4)
time (2353)	summary%nev%time (float) (7.9.4.1.2)
zeffv (2101)	summary%zeffv (reduced) (7.9.4.1.309)

value (2353)	summary%zeffv%value (float) (7.9.4.1.2)
source (2353)	summary%zeffv%source (string) (7.9.4.1.4)
time (2353)	summary%zeffv%time (float) (7.9.4.1.2)
beta_pol (2101)	summary%beta_pol (reduced) (7.9.4.1.309)
value (2353)	summary%beta_pol%value (float) (7.9.4.1.2)
source (2353)	summary%beta_pol%source (string) (7.9.4.1.4)
time (2353)	summary%beta_pol%time (float) (7.9.4.1.2)
beta_tor (2101)	summary%beta_tor (reduced) (7.9.4.1.309)
value (2353)	summary%beta_tor%value (float) (7.9.4.1.2)
source (2353)	summary%beta_tor%source (string) (7.9.4.1.4)
time (2353)	summary%beta_tor%time (float) (7.9.4.1.2)
beta_normal (2101)	summary%beta_normal (reduced) (7.9.4.1.309)
value (2353)	summary%beta_normal%value (float) (7.9.4.1.2)
source (2353)	summary%beta_normal%source (string) (7.9.4.1.4)
time (2353)	summary%beta_normal%time (float) (7.9.4.1.2)
li (2101)	summary%li (reduced) (7.9.4.1.309)
value (2353)	summary%li%value (float) (7.9.4.1.2)
source (2353)	summary%li%source (string) (7.9.4.1.4)
time (2353)	summary%li%time (float) (7.9.4.1.2)
volume (2101)	summary%volume (reduced) (7.9.4.1.309)
value (2353)	summary%volume%value (float) (7.9.4.1.2)
source (2353)	summary%volume%source (string) (7.9.4.1.4)
time (2353)	summary%volume%time (float) (7.9.4.1.2)
area (2101)	summary%area (reduced) (7.9.4.1.309)
value (2353)	summary%area%value (float) (7.9.4.1.2)
source (2353)	summary%area%source (string) (7.9.4.1.4)
time (2353)	summary%area%time (float) (7.9.4.1.2)
main_ion1_z (2101)	summary%main_ion1_z (reduced) (7.9.4.1.309)
value (2353)	summary%main_ion1_z%value (float) (7.9.4.1.2)
source (2353)	summary%main_ion1_z%source (string) (7.9.4.1.4)
time (2353)	summary%main_ion1_z%time (float) (7.9.4.1.2)
main_ion1_a (2101)	summary%main_ion1_a (reduced) (7.9.4.1.309)
value (2353)	summary%main_ion1_a%value (float) (7.9.4.1.2)
source (2353)	summary%main_ion1_a%source (string) (7.9.4.1.4)
time (2353)	summary%main_ion1_a%time (float) (7.9.4.1.2)
main_ion2_z (2101)	summary%main_ion2_z (reduced) (7.9.4.1.309)
value (2353)	summary%main_ion2_z%value (float) (7.9.4.1.2)
source (2353)	summary%main_ion2_z%source (string) (7.9.4.1.4)
time (2353)	summary%main_ion2_z%time (float) (7.9.4.1.2)
main_ion2_a (2101)	summary%main_ion2_a (reduced) (7.9.4.1.309)
value (2353)	summary%main_ion2_a%value (float) (7.9.4.1.2)
source (2353)	summary%main_ion2_a%source (string) (7.9.4.1.4)
time (2353)	summary%main_ion2_a%time (float) (7.9.4.1.2)
impur1_z (2101)	summary%impur1_z (reduced) (7.9.4.1.309)
value (2353)	summary%impur1_z%value (float) (7.9.4.1.2)
source (2353)	summary%impur1_z%source (string) (7.9.4.1.4)
time (2353)	summary%impur1_z%time (float) (7.9.4.1.2)
impur1_a (2101)	summary%impur1_a (reduced) (7.9.4.1.309)
value (2353)	summary%impur1_a%value (float) (7.9.4.1.2)
source (2353)	summary%impur1_a%source (string) (7.9.4.1.4)
time (2353)	summary%impur1_a%time (float) (7.9.4.1.2)
time (2101)	summary%time (float) (7.9.4.1.2)

7.9.4.2.40 topinfo

dataprovider (2102)	topinfo%dataprovider (string) (7.9.4.1.4)
description (2102)	topinfo%description (string) (7.9.4.1.4)
firstputdate (2102)	topinfo%firstputdate (string) (7.9.4.1.4)
lastupdate (2102)	topinfo%lastupdate (string) (7.9.4.1.4)
source (2102)	topinfo%source (string) (7.9.4.1.4)
comment (2102)	topinfo%comment (string) (7.9.4.1.4)

dataversion (2102)	topinfo%dataversion (string) (7.9.4.1.4)
workflow (2102)	topinfo%workflow (string) (7.9.4.1.4)
entry (2102)	topinfo%entry (entry_def) (7.9.4.1.188)
user (2232)	topinfo%entry%user (string) (7.9.4.1.4)
machine (2232)	topinfo%entry%machine (string) (7.9.4.1.4)
shot (2232)	topinfo%entry%shot (integer) (7.9.4.1.3)
run (2232)	topinfo%entry%run (integer) (7.9.4.1.3)
parent_entry (2102)	topinfo%parent_entry (entry_def) (7.9.4.1.188)
user (2232)	topinfo%parent_entry%user (string) (7.9.4.1.4)
machine (2232)	topinfo%parent_entry%machine (string) (7.9.4.1.4)
shot (2232)	topinfo%parent_entry%shot (integer) (7.9.4.1.3)
run (2232)	topinfo%parent_entry%run (integer) (7.9.4.1.3)
mdinfo (2102)	topinfo%mdinfo (mdinfo) (7.9.4.1.256)
shot_min (2300)	topinfo%mdinfo%shot_min (integer) (7.9.4.1.3)
shot_max (2300)	topinfo%mdinfo%shot_max (integer) (7.9.4.1.3)
md_entry (2300)	topinfo%mdinfo%md_entry (entry_def) (7.9.4.1.188)
user (2232)	topinfo%mdinfo%md_entry%user (string) (7.9.4.1.4)
machine (2232)	topinfo%mdinfo%md_entry%machine (string) (7.9.4.1.4)
shot (2232)	topinfo%mdinfo%md_entry%shot (integer) (7.9.4.1.3)
run (2232)	topinfo%mdinfo%md_entry%run (integer) (7.9.4.1.3)

7.9.4.2.41 toroidfield

datainfo (2103)	toroidfield%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	toroidfield%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	toroidfield%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	toroidfield%datainfo%source (string) (7.9.4.1.4)
comment (2181)	toroidfield%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	toroidfield%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	toroidfield%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	toroidfield%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	toroidfield%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	toroidfield%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	toroidfield%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	toroidfield%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	toroidfield%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	toroidfield%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	toroidfield%datainfo%putinfo%rights (string) (7.9.4.1.4)
desc_tfcoils (2103)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.4.1.400)
type (2444)	toroidfield%desc_tfcoils%type (integer) (7.9.4.1.3)
phi (2444)	toroidfield%desc_tfcoils%phi (float) (7.9.4.1.2)
circularcoil (2444)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.4.1.81)
centre (2125)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.4.1.335)
r (2379)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.4.1.2)
z (2379)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.4.1.2)
hlength (2125)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.4.1.2)
radialhwidth (2125)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.4.1.2)
planecoil (2444)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.4.1.296)
coordinates (2340)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.4.1.336)
r (2380)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.4.1.14)
z (2380)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.4.1.14)
hlength (2340)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.4.1.14)
radialhwidth (2340)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.4.1.14)
structure (2444)	toroidfield%desc_tfcoils%structure (tf_structure) (7.9.4.1.401)
jcable (2445)	toroidfield%desc_tfcoils%structure%jcable (float) (7.9.4.1.2)
tisotf (2445)	toroidfield%desc_tfcoils%structure%tisotf (float) (7.9.4.1.2)
efcasing (2445)	toroidfield%desc_tfcoils%structure%efcasing (float) (7.9.4.1.2)

escasing (2445)	toroidfield%desc_tfcoils%structure%escasing (float) (7.9.4.1.2)
sigjackettf (2445)	toroidfield%desc_tfcoils%structure%sigjackettf (float) (7.9.4.1.2)
sigvaulttf (2445)	toroidfield%desc_tfcoils%structure%sigvaulttf (float) (7.9.4.1.2)
ktf (2445)	toroidfield%desc_tfcoils%structure%ktf (float) (7.9.4.1.2)
ritf (2445)	toroidfield%desc_tfcoils%structure%ritf (float) (7.9.4.1.2)
riitf (2445)	toroidfield%desc_tfcoils%structure%riitf (float) (7.9.4.1.2)
retf (2445)	toroidfield%desc_tfcoils%structure%retf (float) (7.9.4.1.2)
nturns (2103)	toroidfield%nturns (integer) (7.9.4.1.3)
ncoils (2103)	toroidfield%ncoils (integer) (7.9.4.1.3)
current (2103)	toroidfield%current (exp0D) (7.9.4.1.196)
value (2240)	toroidfield%current%value (float) (7.9.4.1.2)
abserror (2240)	toroidfield%current%abserror (float) (7.9.4.1.2)
relerror (2240)	toroidfield%current%relerror (float) (7.9.4.1.2)
bvac_r (2103)	toroidfield%bvac_r (exp0D) (7.9.4.1.196)
value (2240)	toroidfield%bvac_r%value (float) (7.9.4.1.2)
abserror (2240)	toroidfield%bvac_r%abserror (float) (7.9.4.1.2)
relerror (2240)	toroidfield%bvac_r%relerror (float) (7.9.4.1.2)
r0 (2103)	toroidfield%r0 (float) (7.9.4.1.2)
time (2103)	toroidfield%time (float) (7.9.4.1.2)

7.9.4.2.42 tsdiag

datainfo (2104)	tsdiag%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	tsdiag%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	tsdiag%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	tsdiag%datainfo%source (string) (7.9.4.1.4)
comment (2181)	tsdiag%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	tsdiag%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	tsdiag%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	tsdiag%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	tsdiag%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	tsdiag%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	tsdiag%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	tsdiag%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	tsdiag%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	tsdiag%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	tsdiag%datainfo%putinfo%rights (string) (7.9.4.1.4)
setup (2104)	tsdiag%setup (tssetup) (7.9.4.1.411)
position (2455)	tsdiag%setup%position (rzphi1D) (7.9.4.1.342)
r (2386)	tsdiag%setup%position%r (vecflt_type) (7.9.4.1.14)
z (2386)	tsdiag%setup%position%z (vecflt_type) (7.9.4.1.14)
phi (2386)	tsdiag%setup%position%phi (vecflt_type) (7.9.4.1.14)
measure (2104)	tsdiag%measure (tsmeasure) (7.9.4.1.410)
te (2454)	tsdiag%measure%te (exp1D) (7.9.4.1.197)
value (2241)	tsdiag%measure%te%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	tsdiag%measure%te%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	tsdiag%measure%te%relerror (vecflt_type) (7.9.4.1.14)
ne (2454)	tsdiag%measure%ne (exp1D) (7.9.4.1.197)
value (2241)	tsdiag%measure%ne%value (vecflt_type) (7.9.4.1.14)
abserror (2241)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.4.1.14)
relerror (2241)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.4.1.14)
time (2104)	tsdiag%time (float) (7.9.4.1.2)

7.9.4.2.43 turbulence

datainfo (2105)	turbulence%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	turbulence%datainfo%dataprovider (string) (7.9.4.1.4)

putdate (2181)	turbulence%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	turbulence%datainfo%source (string) (7.9.4.1.4)
comment (2181)	turbulence%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	turbulence%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	turbulence%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	turbulence%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	turbulence%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	turbulence%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	turbulence%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	turbulence%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	turbulence%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	turbulence%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	turbulence%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	turbulence%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	turbulence%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	turbulence%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	turbulence%datainfo%putinfo%rights (string) (7.9.4.1.4)
composition (2105)	turbulence%composition (turbcomposition) (7.9.4.1.412)
amn (2456)	turbulence%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2456)	turbulence%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2456)	turbulence%composition%zion (vecflt_type) (7.9.4.1.14)
ie_mass (2456)	turbulence%composition%ie_mass (vecflt_type) (7.9.4.1.14)
coordsys (2105)	turbulence%coordsys (turbcoordsys) (7.9.4.1.413)
grid_type (2457)	turbulence%coordsys%grid_type (string) (7.9.4.1.4)
turbgrid (2457)	turbulence%coordsys%turbgrid (turbgrid) (7.9.4.1.415)
dim1 (2459)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.4.1.14)
dim2 (2459)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.4.1.14)
dim3 (2459)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.4.1.14)
dim_v1 (2459)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.4.1.14)
dim_v2 (2459)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.4.1.14)
jacobian (2457)	turbulence%coordsys%jacobian (matflt_type) (7.9.4.1.12)
g_11 (2457)	turbulence%coordsys%g_11 (matflt_type) (7.9.4.1.12)
g_12 (2457)	turbulence%coordsys%g_12 (matflt_type) (7.9.4.1.12)
g_13 (2457)	turbulence%coordsys%g_13 (matflt_type) (7.9.4.1.12)
g_22 (2457)	turbulence%coordsys%g_22 (matflt_type) (7.9.4.1.12)
g_23 (2457)	turbulence%coordsys%g_23 (matflt_type) (7.9.4.1.12)
g_33 (2457)	turbulence%coordsys%g_33 (matflt_type) (7.9.4.1.12)
position (2457)	turbulence%coordsys%position (rzphi3D) (7.9.4.1.345)
r (2389)	turbulence%coordsys%position%r (array3dflt_type) (7.9.4.1.6)
z (2389)	turbulence%coordsys%position%z (array3dflt_type) (7.9.4.1.6)
phi (2389)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.4.1.6)
var0d (2105)	turbulence%var0d (turbvar0d) (7.9.4.1.417)
dtime_type (2461)	turbulence%var0d%dtime_type (string) (7.9.4.1.4)
dtime (2461)	turbulence%var0d%dtime (vecflt_type) (7.9.4.1.14)
en_exb (2461)	turbulence%var0d%en_exb (vecflt_type) (7.9.4.1.14)
en_mag (2461)	turbulence%var0d%en_mag (vecflt_type) (7.9.4.1.14)
en_el_th (2461)	turbulence%var0d%en_el_th (vecflt_type) (7.9.4.1.14)
en_ion_th (2461)	turbulence%var0d%en_ion_th (matflt_type) (7.9.4.1.12)
en_el_par (2461)	turbulence%var0d%en_el_par (vecflt_type) (7.9.4.1.14)
en_ion_par (2461)	turbulence%var0d%en_ion_par (matflt_type) (7.9.4.1.12)
en_tot (2461)	turbulence%var0d%en_tot (vecflt_type) (7.9.4.1.14)
fl_el (2461)	turbulence%var0d%fl_el (vecflt_type) (7.9.4.1.14)
fl_heatel (2461)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.4.1.14)
fl_ion (2461)	turbulence%var0d%fl_ion (matflt_type) (7.9.4.1.12)
fl_heation (2461)	turbulence%var0d%fl_heation (matflt_type) (7.9.4.1.12)
fl_magel (2461)	turbulence%var0d%fl_magel (vecflt_type) (7.9.4.1.14)
fl_magheatel (2461)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.4.1.14)
fl_magion (2461)	turbulence%var0d%fl_magion (matflt_type) (7.9.4.1.12)
flmagheation (2461)	turbulence%var0d%flmagheation (matflt_type) (7.9.4.1.12)
var1d (2105)	turbulence%var1d (turbvar1d) (7.9.4.1.418)
rho_tor_norm (2462)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.4.1.14)

phi (2462)	turbulence%var1d%phi (vecflt_type) (7.9.4.1.14)
er (2462)	turbulence%var1d%er (vecflt_type) (7.9.4.1.14)
vor (2462)	turbulence%var1d%vor (vecflt_type) (7.9.4.1.14)
apl (2462)	turbulence%var1d%apl (vecflt_type) (7.9.4.1.14)
jpl (2462)	turbulence%var1d%jpl (vecflt_type) (7.9.4.1.14)
ne (2462)	turbulence%var1d%ne (vecflt_type) (7.9.4.1.14)
te (2462)	turbulence%var1d%te (vecflt_type) (7.9.4.1.14)
ni (2462)	turbulence%var1d%ni (matflt_type) (7.9.4.1.12)
ti (2462)	turbulence%var1d%ti (matflt_type) (7.9.4.1.12)
ui (2462)	turbulence%var1d%ui (matflt_type) (7.9.4.1.12)
var2d (2105)	turbulence%var2d (turbvar2d) (7.9.4.1.419)
rho_tor_norm (2463)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.4.1.14)
theta (2463)	turbulence%var2d%theta (vecflt_type) (7.9.4.1.14)
phi (2463)	turbulence%var2d%phi (matflt_type) (7.9.4.1.12)
apl (2463)	turbulence%var2d%apl (matflt_type) (7.9.4.1.12)
jpl (2463)	turbulence%var2d%jpl (matflt_type) (7.9.4.1.12)
vor (2463)	turbulence%var2d%vor (matflt_type) (7.9.4.1.12)
ne (2463)	turbulence%var2d%ne (matflt_type) (7.9.4.1.12)
te (2463)	turbulence%var2d%te (matflt_type) (7.9.4.1.12)
ni (2463)	turbulence%var2d%ni (array3dflt_type) (7.9.4.1.6)
ti (2463)	turbulence%var2d%ti (array3dflt_type) (7.9.4.1.6)
ui (2463)	turbulence%var2d%ui (array3dflt_type) (7.9.4.1.6)
var3d (2105)	turbulence%var3d (turbvar3d) (7.9.4.1.420)
phi (2464)	turbulence%var3d%phi (array3dflt_type) (7.9.4.1.6)
vor (2464)	turbulence%var3d%vor (array3dflt_type) (7.9.4.1.6)
jpl (2464)	turbulence%var3d%jpl (array3dflt_type) (7.9.4.1.6)
ne (2464)	turbulence%var3d%ne (array3dflt_type) (7.9.4.1.6)
var4d (2105)	turbulence%var4d (turbvar4d) (7.9.4.1.421)
fe (2465)	turbulence%var4d%fe (array4dflt_type) (7.9.4.1.8)
fi (2465)	turbulence%var4d%fi (array5dflt_type) (7.9.4.1.9)
var5d (2105)	turbulence%var5d (turbvar5d) (7.9.4.1.422)
fe (2466)	turbulence%var5d%fe (array5dflt_type) (7.9.4.1.9)
fi (2466)	turbulence%var5d%fi (array6dflt_type) (7.9.4.1.10)
spec1d (2105)	turbulence%spec1d (turbspec1d) (7.9.4.1.416)
kperp (2460)	turbulence%spec1d%kperp (vecflt_type) (7.9.4.1.14)
phi (2460)	turbulence%spec1d%phi (vecflt_type) (7.9.4.1.14)
vor (2460)	turbulence%spec1d%vor (vecflt_type) (7.9.4.1.14)
b (2460)	turbulence%spec1d%b (vecflt_type) (7.9.4.1.14)
jpl (2460)	turbulence%spec1d%jpl (vecflt_type) (7.9.4.1.14)
ne (2460)	turbulence%spec1d%ne (vecflt_type) (7.9.4.1.14)
te (2460)	turbulence%spec1d%te (vecflt_type) (7.9.4.1.14)
ti (2460)	turbulence%spec1d%ti (matflt_type) (7.9.4.1.12)
fe (2460)	turbulence%spec1d%fe (vecflt_type) (7.9.4.1.14)
qe (2460)	turbulence%spec1d%qe (vecflt_type) (7.9.4.1.14)
qi (2460)	turbulence%spec1d%qi (matflt_type) (7.9.4.1.12)
me (2460)	turbulence%spec1d%me (vecflt_type) (7.9.4.1.14)
mi (2460)	turbulence%spec1d%mi (matflt_type) (7.9.4.1.12)
env1d (2105)	turbulence%env1d (turbenv1d) (7.9.4.1.414)
theta (2458)	turbulence%env1d%theta (vecflt_type) (7.9.4.1.14)
phi (2458)	turbulence%env1d%phi (vecflt_type) (7.9.4.1.14)
vor (2458)	turbulence%env1d%vor (vecflt_type) (7.9.4.1.14)
jpl (2458)	turbulence%env1d%jpl (vecflt_type) (7.9.4.1.14)
ne (2458)	turbulence%env1d%ne (vecflt_type) (7.9.4.1.14)
he (2458)	turbulence%env1d%he (vecflt_type) (7.9.4.1.14)
te (2458)	turbulence%env1d%te (vecflt_type) (7.9.4.1.14)
ni (2458)	turbulence%env1d%ni (matflt_type) (7.9.4.1.12)
ti (2458)	turbulence%env1d%ti (matflt_type) (7.9.4.1.12)
ui (2458)	turbulence%env1d%ui (matflt_type) (7.9.4.1.12)
fe (2458)	turbulence%env1d%fe (vecflt_type) (7.9.4.1.14)
qe (2458)	turbulence%env1d%qe (vecflt_type) (7.9.4.1.14)
qi (2458)	turbulence%env1d%qi (matflt_type) (7.9.4.1.12)

me (2458)	turbulence%env1d%me (vecflt_type) (7.9.4.1.14)
mi (2458)	turbulence%env1d%mi (matflt_type) (7.9.4.1.12)
codeparam (2105)	turbulence%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	turbulence%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	turbulence%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	turbulence%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	turbulence%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	turbulence%codeparam%output_flag (integer) (7.9.4.1.3)
time (2105)	turbulence%time (float) (7.9.4.1.2)

7.9.4.2.44 vessel

datainfo (2106)	vessel%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	vessel%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	vessel%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	vessel%datainfo%source (string) (7.9.4.1.4)
comment (2181)	vessel%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	vessel%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	vessel%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	vessel%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	vessel%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	vessel%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	vessel%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	vessel%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	vessel%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	vessel%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	vessel%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	vessel%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	vessel%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	vessel%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	vessel%datainfo%putinfo%rights (string) (7.9.4.1.4)
position (2106)	vessel%position (rz1D) (7.9.4.1.336)
r (2380)	vessel%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	vessel%position%z (vecflt_type) (7.9.4.1.14)

7.9.4.2.45 wall

datainfo (2107)	wall%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	wall%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	wall%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	wall%datainfo%source (string) (7.9.4.1.4)
comment (2181)	wall%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	wall%datainfo%cocos (integer) (7.9.4.1.3)
id (2181)	wall%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	wall%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	wall%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	wall%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	wall%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	wall%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	wall%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	wall%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	wall%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	wall%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	wall%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	wall%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	wall%datainfo%putinfo%rights (string) (7.9.4.1.4)
wall2d_mhd (2107)	wall%wall2d_mhd (wall2d_mhd) (7.9.4.1.426)
wall_id (2470)	wall%wall2d_mhd%wall_id (identifier) (7.9.4.1.230)
id (2274)	wall%wall2d_mhd%wall_id%id (string) (7.9.4.1.4)
flag (2274)	wall%wall2d_mhd%wall_id%flag (integer) (7.9.4.1.3)
description (2274)	wall%wall2d_mhd%wall_id%description (string) (7.9.4.1.4)

res_wall (2470)	wall%wall2d_mhd%res_wall(:) (mhd_res_wall2d) (7.9.4.1.259)
walltype (2303)	wall%wall2d_mhd%res_wall(:)%walltype (identifier) (7.9.4.1.230)
id (2274)	wall%wall2d_mhd%res_wall(:)%walltype%id (string) (7.9.4.1.4)
flag (2274)	wall%wall2d_mhd%res_wall(:)%walltype%flag (integer) (7.9.4.1.3)
description (2274)	wall%wall2d_mhd%res_wall(:)%walltype%description (string) (7.9.4.1.4)
delta (2303)	wall%wall2d_mhd%res_wall(:)%delta (float) (7.9.4.1.2)
eta (2303)	wall%wall2d_mhd%res_wall(:)%eta (float) (7.9.4.1.2)
npoloidal (2303)	wall%wall2d_mhd%res_wall(:)%npoloidal (integer) (7.9.4.1.3)
position (2303)	wall%wall2d_mhd%res_wall(:)%position (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d_mhd%res_wall(:)%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	wall%wall2d_mhd%res_wall(:)%position%z (vecflt_type) (7.9.4.1.14)
holes (2303)	wall%wall2d_mhd%res_wall(:)%holes (holes) (7.9.4.1.229)
n_holes (2273)	wall%wall2d_mhd%res_wall(:)%holes%n_holes (integer) (7.9.4.1.3)
coordinates (2273)	wall%wall2d_mhd%res_wall(:)%holes%coordinates (coordinates) (7.9.4.1.107)
theta (2151)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%theta (vecflt_type) (7.9.4.1.14)
phi (2151)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%phi (vecflt_type) (7.9.4.1.14)
width (2273)	wall%wall2d_mhd%res_wall(:)%holes%width (width) (7.9.4.1.444)
dtheta (2488)	wall%wall2d_mhd%res_wall(:)%holes%width%dtheta (vecflt_type) (7.9.4.1.14)
phi (2488)	wall%wall2d_mhd%res_wall(:)%holes%width%phi (vecflt_type) (7.9.4.1.14)
eta (2273)	wall%wall2d_mhd%res_wall(:)%holes%eta (vecflt_type) (7.9.4.1.14)
ideal_wall (2470)	wall%wall2d_mhd%ideal_wall (mhd_ideal_wall2d) (7.9.4.1.257)
walltype (2301)	wall%wall2d_mhd%ideal_wall%walltype (identifier) (7.9.4.1.230)
id (2274)	wall%wall2d_mhd%ideal_wall%walltype%id (string) (7.9.4.1.4)
flag (2274)	wall%wall2d_mhd%ideal_wall%walltype%flag (integer) (7.9.4.1.3)
description (2274)	wall%wall2d_mhd%ideal_wall%walltype%description (string) (7.9.4.1.4)
position (2301)	wall%wall2d_mhd%ideal_wall%position (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d_mhd%ideal_wall%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	wall%wall2d_mhd%ideal_wall%position%z (vecflt_type) (7.9.4.1.14)
wall2d (2107)	wall%wall2d(:) (wall2d) (7.9.4.1.425)
wall_id (2469)	wall%wall2d(:)%wall_id (identifier) (7.9.4.1.230)
id (2274)	wall%wall2d(:)%wall_id%id (string) (7.9.4.1.4)
flag (2274)	wall%wall2d(:)%wall_id%flag (integer) (7.9.4.1.3)
description (2274)	wall%wall2d(:)%wall_id%description (string) (7.9.4.1.4)
limiter (2469)	wall%wall2d(:)%limiter (wall_limiter) (7.9.4.1.430)
limiter_unit (2474)	wall%wall2d(:)%limiter%limiter_unit(:) (limiter_unit) (7.9.4.1.247)
name (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%name (string) (7.9.4.1.4)
closed (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%closed (string) (7.9.4.1.4)
position (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%position (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d(:)%limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.4.1.14)
z (2380)	wall%wall2d(:)%limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.4.1.14)
eta (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%eta (float) (7.9.4.1.2)
delta (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%delta (float) (7.9.4.1.2)
permeability (2291)	wall%wall2d(:)%limiter%limiter_unit(:)%permeability (float) (7.9.4.1.2)
vessel (2469)	wall%wall2d(:)%vessel (wall_vessel) (7.9.4.1.431)
vessel_unit (2475)	wall%wall2d(:)%vessel%vessel_unit(:) (wall_vessel_unit) (7.9.4.1.433)
annular (2477)	wall%wall2d(:)%vessel%vessel_unit(:)%annular (wall_vessel_annular) (7.9.4.1.432)
name (2476)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%name (string) (7.9.4.1.4)
inside (2476)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%r (vecflt_type) (7.9.4.1.14)
z (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%z (vecflt_type) (7.9.4.1.14)
outside (2476)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%r (vecflt_type) (7.9.4.1.14)
z (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%z (vecflt_type) (7.9.4.1.14)
eta (2476)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%eta (float) (7.9.4.1.2)
permeability (2476)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%permeability (float) (7.9.4.1.2)
blocks (2477)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks (wall_blocks) (7.9.4.1.428)
blocks_unit (2472)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:) (wall_blocks_unit) (7.9.4.1.429)
name (2473)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%name (string) (7.9.4.1.4)
position (2473)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position (rz1D) (7.9.4.1.336)
r (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%r (vecflt_type) (7.9.4.1.14)

z (2380)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%z (vecflt_type) (7.9.4.1.14)
eta (2473)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%eta (float) (7.9.4.1.2)
permeability (2473)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%permeability (float) (7.9.4.1.2)
wall3d (2107)	wall%wall3d(:) (wall3d) (7.9.4.1.427)
wall_id (2471)	wall%wall3d(:)%wall_id (identifier) (7.9.4.1.230)
id (2274)	wall%wall3d(:)%wall_id%id (string) (7.9.4.1.4)
flag (2274)	wall%wall3d(:)%wall_id%flag (integer) (7.9.4.1.3)
description (2274)	wall%wall3d(:)%wall_id%description (string) (7.9.4.1.4)
grid (2471)	wall%wall3d(:)%grid (complexgrid) (7.9.4.1.87)
uid (2131)	wall%wall3d(:)%grid%uid (integer) (7.9.4.1.3)
id (2131)	wall%wall3d(:)%grid%id (string) (7.9.4.1.4)
spaces (2131)	wall%wall3d(:)%grid%spaces(:) (complexgrid_space) (7.9.4.1.96)
geotype (2140)	wall%wall3d(:)%grid%spaces(:)%geotype (vecint_type) (7.9.4.1.15)
geotypeid (2140)	wall%wall3d(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.4.1.16)
coordtype (2140)	wall%wall3d(:)%grid%spaces(:)%coordtype (matint_type) (7.9.4.1.13)
objects (2140)	wall%wall3d(:)%grid%spaces(:)%objects(:) (objects) (7.9.4.1.276)
boundary (2320)	wall%wall3d(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.4.1.13)
neighbour (2320)	wall%wall3d(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.4.1.7)
geo (2320)	wall%wall3d(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.4.1.8)
measure (2320)	wall%wall3d(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.4.1.12)
xpoints (2140)	wall%wall3d(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.4.1.15)
subgrids (2131)	wall%wall3d(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.4.1.97)
id (2141)	wall%wall3d(:)%grid%subgrids(:)%id (string) (7.9.4.1.4)
list (2141)	wall%wall3d(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.4.1.91)
cls (2135)	wall%wall3d(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.4.1.15)
indset (2135)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.4.1.89)
range (2133)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.4.1.15)
ind (2133)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.4.1.15)
ind (2135)	wall%wall3d(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.4.1.13)
metric (2131)	wall%wall3d(:)%grid%metric (complexgrid_metric) (7.9.4.1.90)
measure (2134)	wall%wall3d(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
g11 (2134)	wall%wall3d(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%g11(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g11(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.4.1.6)
g12 (2134)	wall%wall3d(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%g12(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g12(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.4.1.6)
g13 (2134)	wall%wall3d(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%g13(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g13(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.4.1.6)
g22 (2134)	wall%wall3d(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%g22(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g22(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.4.1.6)
g23 (2134)	wall%wall3d(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.4.1.92)

griduid (2136)	wall%wall3d(:)%grid%metric%g23(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g23(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.4.1.6)
g33 (2134)	wall%wall3d(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%g33(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%g33(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.4.1.6)
jacobian (2134)	wall%wall3d(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.4.1.6)
geo (2131)	wall%wall3d(:)%grid%geo(:) (complexgrid_geo_global) (7.9.4.1.88)
geotype (2132)	wall%wall3d(:)%grid%geo(:)%geotype (integer) (7.9.4.1.3)
geotypeid (2132)	wall%wall3d(:)%grid%geo(:)%geotypeid (string) (7.9.4.1.4)
coordtype (2132)	wall%wall3d(:)%grid%geo(:)%coordtype (vecint_type) (7.9.4.1.15)
geo_matrix (2132)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.4.1.6)
measure (2132)	wall%wall3d(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
bases (2131)	wall%wall3d(:)%grid%bases(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	wall%wall3d(:)%grid%bases(:)%griduid (integer) (7.9.4.1.3)
label (2142)	wall%wall3d(:)%grid%bases(:)%label (string) (7.9.4.1.4)
comp (2142)	wall%wall3d(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%wall3d(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%wall3d(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%wall3d(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%wall3d(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%wall3d(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	wall%wall3d(:)%grid%bases(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	wall%wall3d(:)%grid%bases(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	wall%wall3d(:)%grid%bases(:)%basis (integer) (7.9.4.1.3)
plasma (2107)	wall%plasma (plasma) (7.9.4.1.297)
flux (2341)	wall%plasma%flux(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%plasma%flux(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%plasma%flux(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%plasma%flux(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%plasma%flux(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%plasma%flux(:)%matrix (array3dflt_type) (7.9.4.1.6)
b (2341)	wall%plasma%b (complexgrid_vector_simplestruct) (7.9.4.1.99)
label (2143)	wall%plasma%b%label (string) (7.9.4.1.4)
comp (2143)	wall%plasma%b%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%plasma%b%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%plasma%b%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%plasma%b%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%plasma%b%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%plasma%b%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2143)	wall%plasma%b%align (vecint_type) (7.9.4.1.15)

alignid (2143)	wall%plasma%b%alignid (vecstring_type) (7.9.4.1.16)
energy (2341)	wall%plasma%energy(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	wall%plasma%energy(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	wall%plasma%energy(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	wall%plasma%energy(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	wall%plasma%energy(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	wall%plasma%energy(:)%matrix (array3dflt_type) (7.9.4.1.6)
species (2341)	wall%plasma%species(:) (species_desc) (7.9.4.1.387)
label (2431)	wall%plasma%species(:)%label (string) (7.9.4.1.4)
amn (2431)	wall%plasma%species(:)%amn (float) (7.9.4.1.2)
zn (2431)	wall%plasma%species(:)%zn (float) (7.9.4.1.2)
zmin (2431)	wall%plasma%species(:)%zmin (float) (7.9.4.1.2)
zmax (2431)	wall%plasma%species(:)%zmax (float) (7.9.4.1.2)
surface (2107)	wall%surface (surface) (7.9.4.1.396)
ref_wall_typ (2440)	wall%surface%ref_wall_typ(:) (ref_wall_typ) (7.9.4.1.330)
label (2374)	wall%surface%ref_wall_typ(:)%label (string) (7.9.4.1.4)
thickness (2374)	wall%surface%ref_wall_typ(:)%thickness (vecflt_type) (7.9.4.1.14)
stochiometry (2374)	wall%surface%ref_wall_typ(:)%stochiometry (matflt_type) (7.9.4.1.12)
dx (2374)	wall%surface%ref_wall_typ(:)%dx (matflt_type) (7.9.4.1.12)
wall_type (2440)	wall%surface%wall_type (complexgrid_scalar_int) (7.9.4.1.94)
griduid (2138)	wall%surface%wall_type%griduid (integer) (7.9.4.1.3)
subgrid (2138)	wall%surface%wall_type%subgrid (integer) (7.9.4.1.3)
scalar (2138)	wall%surface%wall_type%scalar (vecint_type) (7.9.4.1.15)
vector (2138)	wall%surface%wall_type%vector (matint_type) (7.9.4.1.13)
matrix (2138)	wall%surface%wall_type%matrix (array3dint_type) (7.9.4.1.7)
layers (2440)	wall%surface%layers (layers) (7.9.4.1.246)
density (2290)	wall%surface%layers%density (matflt_type) (7.9.4.1.12)
thickness (2290)	wall%surface%layers%thickness (matflt_type) (7.9.4.1.12)
roughness (2290)	wall%surface%layers%roughness (matflt_type) (7.9.4.1.12)
t (2290)	wall%surface%layers%t (array3dflt_type) (7.9.4.1.6)
element_frac (2290)	wall%surface%layers%element_frac (array3dflt_type) (7.9.4.1.6)
chem_comp (2290)	wall%surface%layers%chem_comp (array3dflt_type) (7.9.4.1.6)
h_inventory (2440)	wall%surface%h_inventory (h_inventory) (7.9.4.1.227)
surf_trap_de (2271)	wall%surface%h_inventory%surf_trap_de (array5dflt_type) (7.9.4.1.9)
bulk_trap_de (2271)	wall%surface%h_inventory%bulk_trap_de (array5dflt_type) (7.9.4.1.9)
bulk_D (2271)	wall%surface%h_inventory%bulk_D (array5dflt_type) (7.9.4.1.9)
surface_D (2271)	wall%surface%h_inventory%surface_D (array5dflt_type) (7.9.4.1.9)
bulk_C_s (2271)	wall%surface%h_inventory%bulk_C_s (array5dflt_type) (7.9.4.1.9)
surface_C_s (2271)	wall%surface%h_inventory%surface_C_s (array5dflt_type) (7.9.4.1.9)
bulk_C_t (2271)	wall%surface%h_inventory%bulk_C_t (array5dflt_type) (7.9.4.1.9)
surface_C_t (2271)	wall%surface%h_inventory%surface_C_t (array5dflt_type) (7.9.4.1.9)
surf_recrate (2271)	wall%surface%h_inventory%surf_recrate (array5dflt_type) (7.9.4.1.9)
elements (2440)	wall%surface%elements(:) (element_desc) (7.9.4.1.187)
label (2231)	wall%surface%elements(:)%label (string) (7.9.4.1.4)
zn (2231)	wall%surface%elements(:)%zn (integer) (7.9.4.1.3)
amn (2231)	wall%surface%elements(:)%amn (float) (7.9.4.1.2)
density (2231)	wall%surface%elements(:)%density (float) (7.9.4.1.2)
compounds (2440)	wall%surface%compounds(:) (compound_desc) (7.9.4.1.105)
label (2149)	wall%surface%compounds(:)%label (string) (7.9.4.1.4)
stochiometry (2149)	wall%surface%compounds(:)%stochiometry (vecflt_type) (7.9.4.1.14)
density (2149)	wall%surface%compounds(:)%density (float) (7.9.4.1.2)
time (2107)	wall%time (float) (7.9.4.1.2)

7.9.4.2.46 waves

datainfo (2108)	waves%datainfo (datainfo) (7.9.4.1.137)
dataprovider (2181)	waves%datainfo%dataprovider (string) (7.9.4.1.4)
putdate (2181)	waves%datainfo%putdate (string) (7.9.4.1.4)
source (2181)	waves%datainfo%source (string) (7.9.4.1.4)
comment (2181)	waves%datainfo%comment (string) (7.9.4.1.4)
cocos (2181)	waves%datainfo%cocos (integer) (7.9.4.1.3)

id (2181)	waves%datainfo%id (integer) (7.9.4.1.3)
isref (2181)	waves%datainfo%isref (integer) (7.9.4.1.3)
whatref (2181)	waves%datainfo%whatref (whatref) (7.9.4.1.443)
user (2487)	waves%datainfo%whatref%user (string) (7.9.4.1.4)
machine (2487)	waves%datainfo%whatref%machine (string) (7.9.4.1.4)
shot (2487)	waves%datainfo%whatref%shot (integer) (7.9.4.1.3)
run (2487)	waves%datainfo%whatref%run (integer) (7.9.4.1.3)
occurrence (2487)	waves%datainfo%whatref%occurrence (integer) (7.9.4.1.3)
putinfo (2181)	waves%datainfo%putinfo (putinfo) (7.9.4.1.306)
putmethod (2350)	waves%datainfo%putinfo%putmethod (string) (7.9.4.1.4)
putaccess (2350)	waves%datainfo%putinfo%putaccess (string) (7.9.4.1.4)
putlocation (2350)	waves%datainfo%putinfo%putlocation (string) (7.9.4.1.4)
rights (2350)	waves%datainfo%putinfo%rights (string) (7.9.4.1.4)
coherentwave (2108)	waves%coherentwave(:) (coherentwave) (7.9.4.1.84)
wave_id (2128)	waves%coherentwave(:)%wave_id (enum_instance) (7.9.4.1.189)
type (2233)	waves%coherentwave(:)%wave_id%type (identifier) (7.9.4.1.230)
id (2274)	waves%coherentwave(:)%wave_id%type%id (string) (7.9.4.1.4)
flag (2274)	waves%coherentwave(:)%wave_id%type%flag (integer) (7.9.4.1.3)
description (2274)	waves%coherentwave(:)%wave_id%type%description (string) (7.9.4.1.4)
name (2233)	waves%coherentwave(:)%wave_id%name (string) (7.9.4.1.4)
index (2233)	waves%coherentwave(:)%wave_id%index (integer) (7.9.4.1.3)
composition (2128)	waves%coherentwave(:)%composition (composition) (7.9.4.1.100)
amn (2144)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.4.1.14)
zn (2144)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.4.1.14)
zion (2144)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.4.1.14)
imp_flag (2144)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.4.1.15)
label (2144)	waves%coherentwave(:)%composition%label (vecstring_type) (7.9.4.1.16)
compositions (2128)	waves%coherentwave(:)%compositions (compositions_type) (7.9.4.1.104)
nuclei (2148)	waves%coherentwave(:)%compositions%nuclei(:) (nuclei) (7.9.4.1.275)
zn (2319)	waves%coherentwave(:)%compositions%nuclei(:)%zn (float) (7.9.4.1.2)
amn (2319)	waves%coherentwave(:)%compositions%nuclei(:)%amn (float) (7.9.4.1.2)
label (2319)	waves%coherentwave(:)%compositions%nuclei(:)%label (string) (7.9.4.1.4)
ions (2148)	waves%coherentwave(:)%compositions%ions(:) (ions) (7.9.4.1.235)
nucindex (2279)	waves%coherentwave(:)%compositions%ions(:)%nucindex (integer) (7.9.4.1.3)
zion (2279)	waves%coherentwave(:)%compositions%ions(:)%zion (float) (7.9.4.1.2)
imp_flag (2279)	waves%coherentwave(:)%compositions%ions(:)%imp_flag (integer) (7.9.4.1.3)
label (2279)	waves%coherentwave(:)%compositions%ions(:)%label (string) (7.9.4.1.4)
impurities (2148)	waves%coherentwave(:)%compositions%impurities(:) (impurities) (7.9.4.1.232)
nucindex (2276)	waves%coherentwave(:)%compositions%impurities(:)%nucindex (integer) (7.9.4.1.3)
i_ion (2276)	waves%coherentwave(:)%compositions%impurities(:)%i_ion (integer) (7.9.4.1.3)
nzimp (2276)	waves%coherentwave(:)%compositions%impurities(:)%nzimp (integer) (7.9.4.1.3)
zmin (2276)	waves%coherentwave(:)%compositions%impurities(:)%zmin (vecflt_type) (7.9.4.1.14)
zmax (2276)	waves%coherentwave(:)%compositions%impurities(:)%zmax (vecflt_type) (7.9.4.1.14)
label (2276)	waves%coherentwave(:)%compositions%impurities(:)%label (vecstring_type) (7.9.4.1.16)
neutralscomp (2148)	waves%coherentwave(:)%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.4.1.103)
neutcomp (2147)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.4.1.102)
nucindex (2146)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.4.1.3)
multiplicity (2146)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.4.1.3)
type (2147)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:) (identifier) (7.9.4.1.230)
id (2274)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%id (string) (7.9.4.1.4)
flag (2274)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.4.1.3)
description (2274)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%description (string) (7.9.4.1.4)
label (2147)	waves%coherentwave(:)%compositions%neutralscomp(:)%label (string) (7.9.4.1.4)
edgespecies (2148)	waves%coherentwave(:)%compositions%edgespecies(:) (edgespecies) (7.9.4.1.186)
nucindex (2230)	waves%coherentwave(:)%compositions%edgespecies(:)%nucindex (integer) (7.9.4.1.3)
zmin (2230)	waves%coherentwave(:)%compositions%edgespecies(:)%zmin (float) (7.9.4.1.2)
zmax (2230)	waves%coherentwave(:)%compositions%edgespecies(:)%zmax (float) (7.9.4.1.2)
label (2230)	waves%coherentwave(:)%compositions%edgespecies(:)%label (string) (7.9.4.1.4)

signature (2148)	waves%coherentwave(:)%compositions%signature (identifier) (7.9.4.1.230)
id (2274)	waves%coherentwave(:)%compositions%signature%id (string) (7.9.4.1.4)
flag (2274)	waves%coherentwave(:)%compositions%signature%flag (integer) (7.9.4.1.3)
description (2274)	waves%coherentwave(:)%compositions%signature%description (string) (7.9.4.1.4)
global_param (2128)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.4.1.435)
frequency (2479)	waves%coherentwave(:)%global_param%frequency (float) (7.9.4.1.2)
name (2479)	waves%coherentwave(:)%global_param%name (string) (7.9.4.1.4)
type (2479)	waves%coherentwave(:)%global_param%type (string) (7.9.4.1.4)
ntor (2479)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.4.1.15)
f_assumption (2479)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.4.1.15)
power_tot (2479)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.4.1.2)
p_frac_ntor (2479)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.4.1.14)
pow_i (2479)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.4.1.14)
pow_e (2479)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.4.1.2)
pow_ntor_i (2479)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.4.1.12)
pow_ntor_e (2479)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.4.1.14)
cur_tor (2479)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.4.1.2)
cur_tor_ntor (2479)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.4.1.14)
code_type (2479)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.4.1.3)
toroid_field (2479)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.4.1.72)
r0 (2116)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.4.1.2)
b0 (2116)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.4.1.2)
grid_1d (2128)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.4.1.436)
rho_tor_norm (2480)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.4.1.14)
rho_tor (2480)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.4.1.14)
psi (2480)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.4.1.14)
grid_2d (2128)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.4.1.437)
grid_type (2481)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.4.1.3)
rho_tor_norm (2481)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.4.1.12)
rho_tor (2481)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.4.1.12)
psi (2481)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.4.1.12)
theta (2481)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.4.1.12)
r (2481)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.4.1.12)
z (2481)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.4.1.12)
theta_info (2481)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.4.1.402)
angl_type (2446)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.4.1.3)
th2th_pol (2446)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.4.1.12)
profiles_1d (2128)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.4.1.438)
powd_tot (2482)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.4.1.14)
powd_e (2482)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.4.1.14)
powd_i (2482)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.4.1.12)
powd_ntor (2482)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.4.1.12)
powd_ntor_e (2482)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.4.1.12)
powd_ntor_i (2482)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.4.1.6)
curd_tor (2482)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.4.1.14)
curd_torntor (2482)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.4.1.12)
pow_tot (2482)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.4.1.14)
pow_e (2482)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.4.1.14)
pow_i (2482)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.4.1.12)
pow_ntor (2482)	waves%coherentwave(:)%profiles_1d%pow_ntor (array3dflt_type) (7.9.4.1.6)
pow_ntor_e (2482)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.4.1.12)
pow_ntor_i (2482)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.4.1.6)
curd_par (2482)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.4.1.14)
curd_parntor (2482)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.4.1.12)
cur_tor (2482)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.4.1.14)
cur_tor_ntor (2482)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.4.1.12)
profiles_2d (2128)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.4.1.439)
powd_tot (2483)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.4.1.12)
powd_e (2483)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.4.1.12)
powd_i (2483)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.4.1.6)
powd_ntor (2483)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.4.1.6)

powd_ntor_e (2483)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.4.1.6)
powd_ntor_i (2483)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.4.1.8)
powd_iharm (2483)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.4.1.9)
beamtracing (2128)	waves%coherentwave(:)%beamtracing(:) (beamtracing) (7.9.4.1.74)
npoints (2118)	waves%coherentwave(:)%beamtracing(:)%npoints (integer) (7.9.4.1.3)
power (2118)	waves%coherentwave(:)%beamtracing(:)%power (float) (7.9.4.1.2)
dnpar (2118)	waves%coherentwave(:)%beamtracing(:)%dnpar (vecflt_type) (7.9.4.1.14)
length (2118)	waves%coherentwave(:)%beamtracing(:)%length (vecflt_type) (7.9.4.1.14)
position (2118)	waves%coherentwave(:)%beamtracing(:)%position (waves_rtposition) (7.9.4.1.440)
r (2484)	waves%coherentwave(:)%beamtracing(:)%position%r (vecflt_type) (7.9.4.1.14)
z (2484)	waves%coherentwave(:)%beamtracing(:)%position%z (vecflt_type) (7.9.4.1.14)
phi (2484)	waves%coherentwave(:)%beamtracing(:)%position%phi (vecflt_type) (7.9.4.1.14)
psi (2484)	waves%coherentwave(:)%beamtracing(:)%position%psi (vecflt_type) (7.9.4.1.14)
theta (2484)	waves%coherentwave(:)%beamtracing(:)%position%theta (vecflt_type) (7.9.4.1.14)
wavevector (2118)	waves%coherentwave(:)%beamtracing(:)%wavevector (waves_rtwavevector) (7.9.4.1.441)
kr (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%kr (vecflt_type) (7.9.4.1.14)
kz (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%kz (vecflt_type) (7.9.4.1.14)
kphi (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%kphi (vecflt_type) (7.9.4.1.14)
npar (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%npar (vecflt_type) (7.9.4.1.14)
nperp (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%nperp (vecflt_type) (7.9.4.1.14)
ntor (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%ntor (vecflt_type) (7.9.4.1.14)
var_ntor (2485)	waves%coherentwave(:)%beamtracing(:)%wavevector%var_ntor (integer) (7.9.4.1.3)
polarization (2118)	waves%coherentwave(:)%beamtracing(:)%polarization (polarization) (7.9.4.1.301)
epol_p_re (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_re (vecflt_type) (7.9.4.1.14)
epol_p_im (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_im (vecflt_type) (7.9.4.1.14)
epol_m_re (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_re (vecflt_type) (7.9.4.1.14)
epol_m_im (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_im (vecflt_type) (7.9.4.1.14)
epol_par_re (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_re (vecflt_type) (7.9.4.1.14)
epol_par_im (2345)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_im (vecflt_type) (7.9.4.1.14)
powerflow (2118)	waves%coherentwave(:)%beamtracing(:)%powerflow (powerflow) (7.9.4.1.302)
phi_perp (2346)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_perp (vecflt_type) (7.9.4.1.14)
phi_par (2346)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_par (vecflt_type) (7.9.4.1.14)
power_e (2346)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_e (vecflt_type) (7.9.4.1.14)
power_i (2346)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_i (matflt_type) (7.9.4.1.12)
fullwave (2128)	waves%coherentwave(:)%fullwave (fullwave) (7.9.4.1.206)
grid (2250)	waves%coherentwave(:)%fullwave%grid (complexgrid) (7.9.4.1.87)
uid (2131)	waves%coherentwave(:)%fullwave%grid%uid (integer) (7.9.4.1.3)
id (2131)	waves%coherentwave(:)%fullwave%grid%id (string) (7.9.4.1.4)
spaces (2131)	waves%coherentwave(:)%fullwave%grid%spaces(:) (complexgrid_space) (7.9.4.1.96)
geotype (2140)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotype (vecint_type) (7.9.4.1.15)
geotypeid (2140)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotypeid (vecstring_type) (7.9.4.1.16)
coordtype (2140)	waves%coherentwave(:)%fullwave%grid%spaces(:)%coordtype (matint_type) (7.9.4.1.13)
objects (2140)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:) (objects) (7.9.4.1.276)
boundary (2320)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.4.1.13)
neighbour (2320)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.4.1.7)
geo (2320)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.4.1.8)
measure (2320)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.4.1.12)
xpoints (2140)	waves%coherentwave(:)%fullwave%grid%spaces(:)%xpoints (vecint_type) (7.9.4.1.15)
subgrids (2131)	waves%coherentwave(:)%fullwave%grid%subgrids(:) (complexgrid_subgrid) (7.9.4.1.97)
id (2141)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%id (string) (7.9.4.1.4)
list (2141)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.4.1.91)
cls (2135)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.4.1.15)
indset (2135)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.4.1.89)
range (2133)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.4.1.15)
ind (2133)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.4.1.15)
ind (2135)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.4.1.13)

metric (2131)	waves%coherentwave(:)%fullwave%grid%metric (complexgrid_metric) (7.9.4.1.90)
measure (2134)	waves%coherentwave(:)%fullwave%grid%metric%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
g11 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g11(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.4.1.6)
g12 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g12(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.4.1.6)
g13 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g13(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.4.1.6)
g22 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g22(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.4.1.6)
g23 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g23(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.4.1.6)
g33 (2134)	waves%coherentwave(:)%fullwave%grid%metric%g33(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.4.1.6)
jacobian (2134)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.4.1.6)
geo (2131)	waves%coherentwave(:)%fullwave%grid%geo(:) (complexgrid_geo_global) (7.9.4.1.88)
geotype (2132)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotype (integer) (7.9.4.1.3)
geotypeid (2132)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotypeid (string) (7.9.4.1.4)
coordtype (2132)	waves%coherentwave(:)%fullwave%grid%geo(:)%coordtype (vecint_type) (7.9.4.1.15)
geo_matrix (2132)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.4.1.3)

scalar (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.4.1.6)
measure (2132)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.4.1.6)
bases (2131)	waves%coherentwave(:)%fullwave%grid%bases(:) (complexgrid_vector) (7.9.4.1.98)
griduid (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%griduid (integer) (7.9.4.1.3)
label (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%label (string) (7.9.4.1.4)
comp (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.4.1.92)
griduid (2136)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%griduid (integer) (7.9.4.1.3)
subgrid (2136)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%subgrid (integer) (7.9.4.1.3)
scalar (2136)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.4.1.14)
vector (2136)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.4.1.12)
matrix (2136)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.4.1.6)
align (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%align (vecint_type) (7.9.4.1.15)
alignid (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%alignid (vecstring_type) (7.9.4.1.16)
basis (2142)	waves%coherentwave(:)%fullwave%grid%bases(:)%basis (integer) (7.9.4.1.3)
e_components (2250)	waves%coherentwave(:)%fullwave%e_components (e_components) (7.9.4.1.174)
e_plus (2218)	waves%coherentwave(:)%fullwave%e_components%e_plus (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%e_plus%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%e_plus%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix%im (array3dflt_type) (7.9.4.1.6)
e_minus (2218)	waves%coherentwave(:)%fullwave%e_components%e_minus (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%e_minus%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%e_minus%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix (array3dcplx_type) (7.9.4.1.71)

re (2115)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix%im (array3dflt_type) (7.9.4.1.6)
e_para (2218)	waves%coherentwave(:)%fullwave%e_components%e_para (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%e_para%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%e_para%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%e_para%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%e_para%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%e_para%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix%im (array3dflt_type) (7.9.4.1.6)
e_norm (2218)	waves%coherentwave(:)%fullwave%e_components%e_norm (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%e_norm%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%e_norm%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix%im (array3dflt_type) (7.9.4.1.6)
e_binorm (2218)	waves%coherentwave(:)%fullwave%e_components%e_binorm (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%e_binorm%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%e_binorm%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix%im (array3dflt_type) (7.9.4.1.6)
b_norm (2218)	waves%coherentwave(:)%fullwave%e_components%b_norm (complexgrid_scalar_cplx) (7.9.4.1.93)

griduid (2137)	waves%coherentwave(:)%fullwave%e_components%b_norm%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%b_norm%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix%im (array3dflt_type) (7.9.4.1.6)
b_binorm (2218)	waves%coherentwave(:)%fullwave%e_components%b_binorm (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%b_binorm%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%b_binorm%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix%im (array3dflt_type) (7.9.4.1.6)
b_para (2218)	waves%coherentwave(:)%fullwave%e_components%b_para (complexgrid_scalar_cplx) (7.9.4.1.93)
griduid (2137)	waves%coherentwave(:)%fullwave%e_components%b_para%griduid (integer) (7.9.4.1.3)
subgrid (2137)	waves%coherentwave(:)%fullwave%e_components%b_para%subgrid (integer) (7.9.4.1.3)
scalar (2137)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar (veccplx_type) (7.9.4.1.423)
re (2467)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar%re (vecflt_type) (7.9.4.1.14)
im (2467)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar%im (vecflt_type) (7.9.4.1.14)
vector (2137)	waves%coherentwave(:)%fullwave%e_components%b_para%vector (matcplx_type) (7.9.4.1.255)
re (2299)	waves%coherentwave(:)%fullwave%e_components%b_para%vector%re (matflt_type) (7.9.4.1.12)
im (2299)	waves%coherentwave(:)%fullwave%e_components%b_para%vector%im (matflt_type) (7.9.4.1.12)
matrix (2137)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix (array3dcplx_type) (7.9.4.1.71)
re (2115)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix%re (array3dflt_type) (7.9.4.1.6)
im (2115)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix%im (array3dflt_type) (7.9.4.1.6)
pol_decomp (2250)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.4.1.299)
mpol (2343)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.4.1.15)
e_plus (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.4.1.6)
e_plus_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.4.1.6)
e_minus (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.4.1.6)
e_minus_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.4.1.6)
e_norm (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.4.1.6)

e_norm_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.4.1.6)
e_binorm (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.4.1.6)
e_binorm_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.4.1.6)
e_para (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.4.1.6)
e_para_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.4.1.6)
b_norm (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.4.1.6)
b_norm_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.4.1.6)
b_binorm (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.4.1.6)
b_binorm_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array3dflt_type) (7.9.4.1.6)
b_para (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.4.1.6)
b_para_ph (2343)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.4.1.6)
local (2250)	waves%coherentwave(:)%fullwave%local (local) (7.9.4.1.251)
e_plus (2295)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.4.1.6)
e_plus_ph (2295)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.4.1.6)
e_minus (2295)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.4.1.6)
e_minus_ph (2295)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.4.1.6)
e_norm (2295)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.4.1.7)
enorm_ph (2295)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.4.1.6)
e_binorm (2295)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.4.1.6)
e_binorm_ph (2295)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.4.1.6)
e_para (2295)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.4.1.6)
e_para_ph (2295)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.4.1.6)
b_norm (2295)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.4.1.6)
b_norm_ph (2295)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.4.1.6)
b_binorm (2295)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.4.1.6)
b_binorm_ph (2295)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.4.1.6)
b_para (2295)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.4.1.6)
b_para_ph (2295)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.4.1.6)
codeparam (2128)	waves%coherentwave(:)%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	waves%coherentwave(:)%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.4.1.3)
codeparam (2108)	waves%codeparam (codeparam) (7.9.4.1.82)
codename (2126)	waves%codeparam%codename (string) (7.9.4.1.4)
codeversion (2126)	waves%codeparam%codeversion (string) (7.9.4.1.4)
parameters (2126)	waves%codeparam%parameters (string) (7.9.4.1.4)
output_diag (2126)	waves%codeparam%output_diag (string) (7.9.4.1.4)
output_flag (2126)	waves%codeparam%output_flag (integer) (7.9.4.1.3)
time (2108)	waves%time (float) (7.9.4.1.2)

cpoinstances [562]

7.9.5 4.10a.3

7.9.5.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.5.1.1 Primitive Types

Clear definitions required.

[562] https://www.efda-itm.eu/ITM/html/cpoinstances__4.10a.html

7.9.5.1.2 float

7.9.5.1.3 integer

7.9.5.1.4 string

7.9.5.1.5 Array Types

Clear definitions required.

7.9.5.1.6 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.5.1.7 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.5.1.8 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.5.1.9 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2.

7.9.5.1.10 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.5.1.11 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.5.1.12 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.5.1.13 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.5.1.14 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.5.1.15 vecint_type

Example: [1,2,3]

7.9.5.1.16 vecstring_type

Example: ["aaa","bb","cccc"]

7.9.5.1.17 Structure Types

7.9.5.1.18 CPO Structures

7.9.5.1.19 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
version	string (7.9.5.1.4)	Version of the data.
source	string (7.9.5.1.4)	Source of the data.
zn	integer (7.9.5.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.5.1.2)	Mass of atom [amu]
zion	vecint_type (7.9.5.1.15)	Ion charge [units of elementary charge]. If negative value, means it is a bundle of charge state which cannot be described as single value. Vector of integers (nchargestates)
state_label	vecstring_type (7.9.5.1.16)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
bundled	integer (7.9.5.1.3)	Flag indicating bundling status. Integer flag: 0=no bundling.
proc_label	vecstring_type (7.9.5.1.16)	Label for process (e.g. EI, RC; could also include error estimates); Vector(nprocs)
tables(:)	tables (7.9.5.1.407)	Rate tables for processes. Vector(nprocs)
tables_coord(:)	tables_coord (7.9.5.1.408)	Array of possible coordinate systems for tables. Vector(ncoordbases)
version_ind(:)	version_ind (7.9.5.1.433)	Array of releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release

7.9.5.1.20 antennas

RF antenna list. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
antenna_ec(:)	antenna_ec (7.9.5.1.67)	Vector of Electron Cyclotron antennas. Time-dependent
antenna_ic(:)	antenna_ic (7.9.5.1.68)	Vector of Ion Cyclotron antennas. Time-dependent
antenna_lh(:)	antenna_lh (7.9.5.1.69)	Vector of Lower Hybrid antennas. Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.21 compositionc

Species description (ions, impurities, neutrals).

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).

7.9.5.1.22 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coredelta_values (7.9.5.1.110)	Description of the delta term for the various origins. Array of structure (ndelta). Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.23 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into ”bundles”. Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)

member	type	description
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.5.1.15)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
atomic_data	vecstring_type (7.9.5.1.16)	Reference for the atomic data used for each impurity. Array of strings (nimp)
impurity(:)	impurity_type (7.9.5.1.234)	Array(nimp). Time-dependent
diagnostic	coreimpurediag_type (7.9.5.1.122)	NO DOCS
diagnosticsum	coreimpurediag_sum (7.9.5.1.120)	NO DOCS
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar.

7.9.5.1.24 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
neutcompo	composition_neutrals (7.9.5.1.102)	Description of neutrals species
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
profiles(:)	neutral_complex_type (7.9.5.1.274)	Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent
ioncoeff(:)	coefficients_neutrals (7.9.5.1.84)	Recycling and sputtering coefficients for each ion in composition. Array(nion). Time-dependent
impcoeff(:)	impcoeff (7.9.5.1.232)	Recycling and sputtering coefficients for each impurity ion in desc_impur. Array(nimp). Time-dependent.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.25 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last radial grid point, which is quasi at the Last Closed Flux Surface); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.5.1.14)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.5.1.413)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
psi	psi (7.9.5.1.306)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.5.1.111)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.5.1.112)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;

member	type	description
ne	corefield (7.9.5.1.111)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.5.1.112)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.5.1.112)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.5.1.304)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.5.1.226)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.26 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.5.1.73)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	coresource_values (7.9.5.1.129)	Description of the source terms of various origins. Array of structure (nsource). Time-dependent.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.27 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coretransp_values (7.9.5.1.133)	Description of transport term coming from various origins. Array of structure (ntransp). Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.28 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	cxsetup (7.9.5.1.136)	diagnostic setup information
measure	cxmeasure (7.9.5.1.135)	Measured values
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.29 distribution

Distribution function for electron and ion species. Normally output from a Fokker-Planck calculation; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
distri_vec(:)	distri_vec (7.9.5.1.168)	Vector over all distribution functions; Time-dependent. Structure array(ndistri_vec)
codeparam	codeparam (7.9.5.1.83)	Code parameters

member	type	description
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.30 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.5.1.105)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
source(:)	distsource_source (7.9.5.1.173)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; scalar

7.9.5.1.31 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	ecesetup (7.9.5.1.177)	diagnostic setup information
measure	ecemeasure (7.9.5.1.176)	Measured values
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.32 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
grid	complexgrid (7.9.5.1.88)	Grid description
species(:)	species_desc (7.9.5.1.394)	Description of ion species. Array of structures(nspecies)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
fluid	edge_fluid (7.9.5.1.178)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.5.1.184)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.33 efcc

Error field correction coils. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
coil(:)	coil (7.9.5.1.86)	Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.5.1.83)	Code parameters

7.9.5.1.34 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
eqconstraint	eqconstraint (7.9.5.1.191)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.5.1.192)	Geometry of the plasma boundary

member	type	description
flush	flush (7.9.5.1.202)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.5.1.225)	0d output parameters
profiles_1d	profiles_1d (7.9.5.1.305)	output profiles as a function of the poloidal flux
profiles_2d(:)	equilibrium_profiles_2d (7.9.5.1.196)	Output profiles in the poloidal plane. Time-dependent
coord_sys	coord_sys (7.9.5.1.107)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.5.1.83)	Code parameters

7.9.5.1.35 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
fus_product(:)	fusiondiag_fus_product (7.9.5.1.220)	Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.36 halphadiag

H/D alpha line integrated diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	halpha_setup (7.9.5.1.229)	setup for the lines of sight of the line integrated measurement
intensity	exp1D (7.9.5.1.198)	Measured light intensity (a.u.). Time-dependent. Vector (nlos)
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.37 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
expression	string (7.9.5.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.5.1.379)	Geometric description of the lines of sight
measure	exp1D (7.9.5.1.198)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.38 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
desc_iron	desc_iron (7.9.5.1.142)	Description of the iron segments
magnetise	magnetise (7.9.5.1.255)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.39 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
potential	lang_measure (7.9.5.1.240)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.5.1.240)	Biasing potential [V]. All children are vectors(bias)

member	type	description
jsat	lang_measure (7.9.5.1.240)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.5.1.239)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.5.1.239)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.5.1.239)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.40 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
name	vecstring_type (7.9.5.1.16)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.5.1.16)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.5.1.14)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.5.1.15)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.5.1.348)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.5.1.396)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.5.1.244)	Beam characteristics
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.41 limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
limiter_unit(:)	limiter_unit (7.9.5.1.248)	Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

7.9.5.1.42 lithiumdiag

Lithium Beam Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	lithsetup (7.9.5.1.251)	diagnostic setup information
measure	lithmeasure (7.9.5.1.250)	Measured values
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.43 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
ip	exp0D (7.9.5.1.197)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.5.1.197)	Diamagnetic flux [Wb]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.5.1.203)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.5.1.81)	Poloidal field probes
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.44 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
n	vecint_type (7.9.5.1.15)	Toroidal mode number; Time-dependent; Vector (nn)
frequency	vecflt_type (7.9.5.1.14)	Frequency of the mode [Hz]; Time-dependent; Vector (nn)
growthrate	vecflt_type (7.9.5.1.14)	Linear growthrate of the mode [Hz]; Time-dependent; Vector (nn)
plasma	mhd_plasma (7.9.5.1.259)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.5.1.261)	External modes
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.5.1.83)	Code parameters

7.9.5.1.45 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
polarimetry	polarimetry (7.9.5.1.301)	This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.
spectral	spectral (7.9.5.1.395)	This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.46 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
nbi_unit(:)	nbi_unit (7.9.5.1.272)	Vector of Neutral Beam Injector units. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.47 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
desc_impur	desc_impur (7.9.5.1.141)	Description of the impurities (list of ion species and possibly different charge states)
compositions	compositions_type (7.9.5.1.105)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
ni_neo	transcoefion (7.9.5.1.417)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.5.1.415)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo(:)	transcoefimp (7.9.5.1.416)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.5.1.417)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.5.1.415)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo(:)	transcoefimp (7.9.5.1.416)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.5.1.415)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.5.1.14)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.5.1.14)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.5.1.14)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.5.1.12)	Neoclassical poloidal rotation of for each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.5.1.6)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).

member	type	description
jext	vecflt_type (7.9.5.1.14)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.5.1.83)	Code parameters

7.9.5.1.48 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
com	com (7.9.5.1.87)	COM (Constants Of Motion) parameters identifying an orbit
trace	trace (7.9.5.1.414)	Position of particle in 5D space (3D in real and 2D in velocity).
global_param	orbit_global_param (7.9.5.1.281)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.49 pellets

Pellet injectors and diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
toroid_field	b0r0 (7.9.5.1.73)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho in this CPO.
species	species (7.9.5.1.393)	Pellet composition
shape	shape (7.9.5.1.380)	Pellet shape
pelletpath	pelletpath (7.9.5.1.287)	Description of the flight path of the pellet (assumed a straight line)
velocity	float (7.9.5.1.2)	Pellet injection velocity (m/s). Time-dependent. Scalar
ablationrate	ablationrate (7.9.5.1.66)	Ablation rate data [particle/s]. Formally the ablation rate profile only makes sense after the pellet has fully penetrated inside the plasma. The assignement of a suitable time stamp to the profile should be made either to time of maximum penetration or to the mean of the time window of pellet lifetime. In the modelling however, the reference time is the time when the pellet crosses the separatrix. Time-dependent. Vector (npos)
deposprofile	deposprofile (7.9.5.1.139)	Deposition profile (m^-3). This deposition profile only makes sense after the ablated pellet cloud interacts via some transport processes with the plasma. This is why we add a time delay stamp to the profile in reference to the ablation rate profile. Time-dependent. Vector (npos)
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.50 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
pfcoils	pfcoils (7.9.5.1.290)	Active poloidal field coils
pfpassive	pfpassive (7.9.5.1.294)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.5.1.289)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.5.1.295)	PF power supplies
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.51 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
expression	string (7.9.5.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.5.1.379)	Geometric description of the lines of sight
measure	exp1D (7.9.5.1.198)	Measured value. Time-dependent; Vector (nchords)

member	type	description
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.52 reference

Set of generic reference signals (for input e.g. to a controller); Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
non_timed	ref_nt (7.9.5.1.311)	Time-independent references (parameters)
timed	ref_t (7.9.5.1.322)	Time-dependent references
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.53 reflectomet

Reflectometry CPO, contains antennas and received signals; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
refl_receive(:)	refl_receive (7.9.5.1.332)	Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.
antennas(:)	reflectometry_antennas (7.9.5.1.333)	Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array. Time-dependent.
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.54 rfadiag

Retarding field analyser Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	rfasetup (7.9.5.1.339)	diagnostic setup information
measure	rfameasure (7.9.5.1.338)	Measured values
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.55 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
crash_trig	integer (7.9.5.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.5.1.354)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.5.1.353)	NO DOCS
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.56 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item

member	type	description
centre	scenario_centre (7.9.5.1.355)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.5.1.356)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.5.1.357)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.5.1.358)	characteristic confinement times
currents	scenario_currents (7.9.5.1.359)	data related to current sources and current diffusion
edge	scenario_edge (7.9.5.1.360)	edge value (@ LCMS)
energy	scenario_energy (7.9.5.1.361)	plasma energy content
eqgeometry	eqgeometry (7.9.5.1.192)	Geometry of the plasma boundary
global_param	scenario_global (7.9.5.1.362)	Global scalar values
heat_power	scenario_heat_power (7.9.5.1.363)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.5.1.365)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.5.1.366)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.5.1.367)	line averaged value
neutron	scenario_neutron (7.9.5.1.368)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.5.1.369)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.5.1.370)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.5.1.373)	References
reactor	scenario_reactor (7.9.5.1.371)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.5.1.374)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.5.1.375)	volume averaged value
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.57 summary

Set of reduced data summarising the main simulation parameters for the data base catalogue. CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
ip	reduced (7.9.5.1.310)	Plasma current [A]
bvac_r	reduced (7.9.5.1.310)	Vacuum field times radius in the toroidal field magnet [T.m];
geom_axis_r	reduced (7.9.5.1.310)	Major radius of the geometric axis [m]
a_minor	reduced (7.9.5.1.310)	Minor radius of the plasma boundary [m]
elongation	reduced (7.9.5.1.310)	Elongation of the plasma boundary [m]
tria_lower	reduced (7.9.5.1.310)	Lower triangularity of the plasma boundary [m]
tria_upper	reduced (7.9.5.1.310)	Upper triangularity of the plasma boundary [m]
tev	reduced (7.9.5.1.310)	volume averaged electron temperature [eV]
tiv	reduced (7.9.5.1.310)	volume averaged ion temperature [eV]
nev	reduced (7.9.5.1.310)	volume averaged electron density [m^-3]
zeffv	reduced (7.9.5.1.310)	volume averaged effective charge
beta_pol	reduced (7.9.5.1.310)	poloidal beta
beta_tor	reduced (7.9.5.1.310)	toroidal beta
beta_normal	reduced (7.9.5.1.310)	normalised beta
li	reduced (7.9.5.1.310)	internal inductance
volume	reduced (7.9.5.1.310)	total plasma volume [m^3]
area	reduced (7.9.5.1.310)	area poloidal cross section [m^2]
main_ion1_z	reduced (7.9.5.1.310)	Atomic number of the main ion #1 [a.m.u.]
main_ion1_a	reduced (7.9.5.1.310)	Atomic mass of the main ion #1 [a.m.u.]
main_ion2_z	reduced (7.9.5.1.310)	Atomic number of the main ion #2 [a.m.u.]
main_ion2_a	reduced (7.9.5.1.310)	Atomic mass of the main ion #2 [a.m.u.]
impur1_z	reduced (7.9.5.1.310)	Atomic number of the impurity #1 [a.m.u.]

member	type	description
impur1_a	reduced (7.9.5.1.310)	Atomic mass of the impurity #1 [a.m.u.]
time	float (7.9.5.1.2)	Time at which the 0D variables of the summary are taken [s]. Scalar

7.9.5.1.58 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.5.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.5.1.4)	Pulse/Entry description
firstputdate	string (7.9.5.1.4)	Date of the original data submission
lastupdate	string (7.9.5.1.4)	Date of the last data addition in the tree
source	string (7.9.5.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.5.1.4)	Any additional comment
dataversion	string (7.9.5.1.4)	Version of the data structure
workflow	string (7.9.5.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.5.1.189)	Definition of this database entry
parent_entry	entry_def (7.9.5.1.189)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.5.1.257)	Information related to machine description for this entry

7.9.5.1.59 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.5.1.409)	Description of the toroidal field coils
nturns	integer (7.9.5.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.5.1.3)	Number of packets of coils
current	exp0D (7.9.5.1.197)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.5.1.197)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.5.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.5.1.2)	Time [s]; Time-dependent. Scalar.

7.9.5.1.60 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
setup	tssetup (7.9.5.1.420)	diagnostic setup information
measure	tsmeasure (7.9.5.1.419)	Measured values
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.61 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
composition	turbcomposition (7.9.5.1.421)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.5.1.422)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.5.1.426)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.5.1.427)	Dependent variable radial profile.
var2d	turbvar2d (7.9.5.1.428)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.5.1.429)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.5.1.430)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
var5d	turbvar5d (7.9.5.1.431)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.5.1.425)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.5.1.423)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar.

7.9.5.1.62 vessel

Mechanical structure of the vacuum vessel. CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
position	rz1D (7.9.5.1.342)	Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints)

7.9.5.1.63 wall

General Wall representation. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
wall2d_mhd	wall2d_mhd (7.9.5.1.435)	Simplified wall that encloses necessary information for RWM codes.
wall0d	wall_wall0d (7.9.5.1.443)	Simple 0D description of plasma-wall interaction
wall2d(:)	wall2d (7.9.5.1.434)	2D wall type. Structure array. Replicate this element for each type of possible physics configurations necessary (single contour limiter, disjoints gapped plasma facing components)
wall3d(:)	wall3d (7.9.5.1.436)	A 3D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas thight vs wall with ports and holes)
plasma	plasma (7.9.5.1.298)	Plasma flux from/to plasma facing wall surfaces
surface	surface (7.9.5.1.403)	State of plasma facing wall surfaces
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.64 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.5.1.85)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.5.1.83)	Code parameters
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.65 Utility Structures

7.9.5.1.66 ablationrate

Ablation rate data [particle/s]. Formally the ablation rate profile only makes sense after the pellet has fully penetrated inside the plasma. The assignement of a suitable time stamp to the profile should be made either to time of maximum penetration or to the mean of the time window of pellet lifetime. In the modelling however, the reference time is the time when the pellet crosses the separatrix. Time-dependent. Vector (npos)

member	type	description
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rate	vecflt_type (7.9.5.1.14)	Calculated ablation rate; (particle/s)
position	rzphi1D (7.9.5.1.348)	Coordinates for abblation rate

Type of: pellets:ablationrate (2565)

7.9.5.1.67 antenna_ec

Vector of Electron Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.5.1.4)	Antenna name
frequency	float (7.9.5.1.2)	Frequency [Hz]
power	exp0D (7.9.5.1.197)	Power [W]; Time-dependent
mode	integer (7.9.5.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.5.1.347)	Launching position in the global reference system; Time-dependent
launchangles	launchangles (7.9.5.1.241)	Launching angles of the beam
beam	rfbeam (7.9.5.1.340)	Beam characteristics at the launching position
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: antennas:antenna_ec (2536)

7.9.5.1.68 antenna_ic

Vector of Ion Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.5.1.4)	Antenna name; String
frequency	exp0D (7.9.5.1.197)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.5.1.197)	Power [W]; Time-dependent; Exp0d
setup	antennaic_setup (7.9.5.1.70)	Detailed description of IC antennas
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: antennas:antenna_ic (2536)

7.9.5.1.69 antenna_lh

Vector of Lower Hybrid antennas. Time-dependent

member	type	description
name	string (7.9.5.1.4)	Antenna name, String
frequency	float (7.9.5.1.2)	Frequency [Hz]
power	exp0D (7.9.5.1.197)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.5.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.5.1.347)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.5.1.71)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.5.1.299)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.5.1.340)	Beam characteristics
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: antennas:antenna_lh (2536)

7.9.5.1.70 antennaic_setup

Detailed description of ICRH antennas

member	type	description
straps(:)	straps (7.9.5.1.402)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

Type of: antenna_ic:setup (2583)

7.9.5.1.71 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.5.1.263)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (2584)

7.9.5.1.72 array3dcplx_type

Temporary structure for real and imaginary part of complex numbers (3D)

member	type	description
re	array3dflt_type (7.9.5.1.6)	Real part
im	array3dflt_type (7.9.5.1.6)	Imaginary part

Type of: complexgrid_scalar_cplx:matrix (2609) I mhd_plasma:disp_par (2774) I mhd_plasma:disp_perp (2774) I mhd_plasma:p_pert (2774) I mhd_plasma:rho_mass_pert (2774) I mhd_plasma:temp_pert (2774) I mhd_vector:coord1 (2777) I mhd_vector:coord2 (2777) I mhd_vector:coord3 (2777)

7.9.5.1.73 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.5.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.5.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: coresource:toroid_field (2542) I global_param:toroid_field (2740) I pellets:toroid_field (2565) I waves_global_param:to (2961)

7.9.5.1.74 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.5.1.348)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.5.1.14)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.5.1.14)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.5.1.14)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: setup_inject:beamlets (2893)

7.9.5.1.75 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.5.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.5.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.5.1.14)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.5.1.14)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent
position	waves_rtposition (7.9.5.1.451)	Ray/beam position
wavevector	waves_rtwavevector (7.9.5.1.452)	Ray/beam wave vector.
polarization	polarization (7.9.5.1.302)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.5.1.303)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (2600)

7.9.5.1.76 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.5.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.5.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.5.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: psi:boundary (2821)

7.9.5.1.77 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array1D(3)
type	integer (7.9.5.1.3)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Int
rho_tor	float (7.9.5.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Float.

Type of: corefieldneutral:boundary (2628) I corefieldneutrale:boundary (2629) I corefieldneutralv:boundary (2630)

7.9.5.1.78 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.5.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.5.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.5.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (2626)

7.9.5.1.79 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	matflt_type (7.9.5.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 2D (3,nzimp)
source	string (7.9.5.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String

member	type	description
type	vecint_type (7.9.5.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nzimp)
rho	vecflt_type (7.9.5.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nzimp)
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: impurity_type:boundary (2749)

7.9.5.1.80 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.5.1.12)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.5.1.16)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.5.1.15)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.5.1.14)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (2627)

7.9.5.1.81 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.5.1.376)	diagnostic setup information
measure	exp1D (7.9.5.1.198)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (2559)

7.9.5.1.82 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.5.1.341)	Circular coil centre
hlength	float (7.9.5.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.5.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (2924)

7.9.5.1.83 codeparam

Code parameters

member	type	description
codename	string (7.9.5.1.4)	Name of the code
codeversion	string (7.9.5.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.5.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.5.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.

member	type	description
output_flag	integer (7.9.5.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: antenna_ec:codeparam (2582) I antenna_ic:codeparam (2583) I antenna_lh:codeparam (2584) I antennas:codeparam (2536) I boundary:codeparam (2591) I boundaryimp:codeparam (2594) I coherentwave:codeparam (2600) I coredelta:codeparam (2538) I coredelta_values:codeparam (2625) I corefield:codeparam (2626) I corefieldion:codeparam (2627) I coreimpur:codeparam (2539) I coreneutrals:codeparam (2540) I coreprof:codeparam (2541) I coresource:codeparam (2542) I coresource_values:codeparam (2644) I coretransp:codeparam (2543) I coretransp_values:codeparam (2648) I distri_vec:codeparam (2683) I distribution:codeparam (2545) I distsource:codeparam (2546) I distsource_source:codeparam (2688) I edge:codeparam (2548) I efcc:codeparam (2549) I equilibrium:codeparam (2550) I flush:codeparam (2717) I fusiondiag:codeparam (2551) I fusiondiag_fus_product:codeparam (2735) I langmuirdiag:codeparam (2555) I launchs:codeparam (2556) I mhd:codeparam (2560) I nbi:codeparam (2562) I nbi_unit:codeparam (2787) I neoclassic:codeparam (2563) I orbit:codeparam (2564) I pellets:codeparam (2565) I psi:codeparam (2821) I refl_receive:codeparam (2847) I sawteeth:codeparam (2571) I scenario:codeparam (2572) I spectral:codeparam (2910) I turbulence:codeparam (2577) I waves:codeparam (2580)

7.9.5.1.84 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The particular causing ion or impurity charge state is determined by the path.

member	type	description
recycling	recycling_neutrals (7.9.5.1.309)	Recycling coefficients
sputtering	sputtering_neutrals (7.9.5.1.398)	Sputtering coefficients

Type of: coreneutrals:ioncoeff (2540) I impcoeff:chargestate (2747)

7.9.5.1.85 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
wave_id	enum_instance (7.9.5.1.190)	Identifier for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC; the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.
composition	composition (7.9.5.1.101)	Plasma composition (description of ion species).
compositions	compositions_type (7.9.5.1.105)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
global_param	waves_global_param (7.9.5.1.446)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.5.1.447)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.5.1.448)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.5.1.449)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.5.1.450)	2D profiles in poloidal cross-section
beamtracing(:)	beamtracing (7.9.5.1.75)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.5.1.207)	Solution by full wave code
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: waves:coherentwave (2580)

7.9.5.1.86 coil

Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.

member	type	description
desc_coils	desc_coils (7.9.5.1.140)	Description of the coils

member	type	description
coilcurrent	exp1D (7.9.5.1.198)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the geometry description [A]; Time-dependent
coilvoltage	exp1D (7.9.5.1.198)	Voltage on the full coil [V]; Time-dependent

Type of: efcc:coil (2549)

7.9.5.1.87 com

COM (Constants Of Motion) parameters identifying an orbit

member	type	description
amn	float (7.9.5.1.2)	Atomic mass of the particle; Scalar
zion	float (7.9.5.1.2)	Atomic charge of the particle; Scalar
energy	vecflt_type (7.9.5.1.14)	Energy of the particle [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.5.1.14)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.5.1.14)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.5.1.15)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:com (2564)

7.9.5.1.88 complexgrid

Generic definition of a complex grid

member	type	description
uid	integer (7.9.5.1.3)	Unique index of this grid. Used for handling multiple grids
id	string (7.9.5.1.4)	Name / identifier string for this grid
spaces(:)	complexgrid_space (7.9.5.1.97)	Definitions of grid spaces. Array of structures (number of spaces)
subgrids(:)	complexgrid_subgrid (7.9.5.1.98)	Definitions of subgrids. Array of structures (number of subgrids)
metric	complexgrid_metric (7.9.5.1.91)	Metric coefficients
geo(:)	complexgrid_geo_global (7.9.5.1.89)	Geometry data for implicit objects
bases(:)	complexgrid_vector (7.9.5.1.99)	Vector bases. Used for aligned vector representation. Array of structures (number of bases)

Type of: edge:grid (2548) I f_expansion:grid (2715) I fullwave:grid (2722) I source_rate:grid (2903) I wall3d:grid (2951)

7.9.5.1.89 complexgrid_geo_global

Geometry information for implicitly defined grid objects (which cannot be stored in the space definitions); Array of structures (number of alternate geometries).

member	type	description
geotype	integer (7.9.5.1.3)	Type of geometry (id flag). A flag defining how the geometry data associated with grid objects is to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.5.1.4)	Type of geometry (id string).
coordtype	vecint_type (7.9.5.1.15)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
geo_matrix(:)	complexgrid_scalar (7.9.5.1.93)	Geometry data matrix associated with implicit objects. Array of structures (number of subgrids this information is stored on); The exact definition of the stored values depends on the geometry type of the geometry complexgrid_geo_global.geotype;
measure(:)	complexgrid_scalar (7.9.5.1.93)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects) in this geometry. [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:geo (2603)

7.9.5.1.90 complexgrid_indexlist

An index list describing a list of indices or a range of indices.; If the explicit index list ind is defined and has nonzero size, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.5.1.15)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). If additionally a third value range(3) is given, it is used as a stride. If it is omitted, a stride of 1 is assumed. Vector(3)
ind	vecint_type (7.9.5.1.15)	An explicit list of indices. If this member is defined and has nonzero size, the list is assumed to be explicit. Vector(length of explicit index list)

Type of: complexgrid_objectlist:indset (2607)

7.9.5.1.91 complexgrid_metric

Metric information for grid objects

member	type	description
measure(:)	complexgrid_scalar (7.9.5.1.93)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)
g11(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g11. Array of structures (number of subgrids this information is stored on)
g12(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g12. Array of structures (number of subgrids this information is stored on)
g13(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g13. Array of structures (number of subgrids this information is stored on)
g22(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g22. Array of structures (number of subgrids this information is stored on)
g23(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g23. Array of structures (number of subgrids this information is stored on)
g33(:)	complexgrid_scalar (7.9.5.1.93)	Metric coefficients g33. Array of structures (number of subgrids this information is stored on)
jacobian(:)	complexgrid_scalar (7.9.5.1.93)	Jacobian. Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:metric (2603)

7.9.5.1.92 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list is explicit if the matrix ind is given and has nonzero size. In this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are defined by a list of index lists stored in indset.

member	type	description
cls	vecint_type (7.9.5.1.15)	Class tuple of the grid objects in this object list. Vector (number of grid spaces)
indset(:)	complexgrid_indexlist (7.9.5.1.90)	Implicit list of the object indices.; Array of structures (number of grid spaces = length of index tuple). Every index of the index tuple is described by an index set, which defines either a list of index values or a range of index values.
ind	matint_type (7.9.5.1.13)	Explicit list of index tuples. Matrix (number of objects, number of spaces in grid).; First dimension: object index, second dimension: index tuple/space index.; If this field is defined and has nonzero size, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (2613)

7.9.5.1.93 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this scalar quantity is associated with.

member	type	description
subgrid	integer (7.9.5.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.5.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.5.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.5.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_geo_global:geo_matrix (2604) I complexgrid_geo_global:measure (2604) I complexgrid_metric:g11 (2606) I complexgrid_metric:g12 (2606) I complexgrid_metric:g13 (2606) I complexgrid_metric:g22 (2606) I complexgrid_metric:g23 (2606) I complexgrid_metric:g33 (2606) I complexgrid_metric:jacobian (2606) I complexgrid_metric:measure (2606) I complexgrid_vector:comp (2614) I complexgrid_vector_simplestruct:comp (2615) I edge_fluid_scalar:bndvalue (2694) I edge_fluid_scalar:source (2694) I edge_fluid_scalar:value (2694) I edge_fluid_scalar_simple (2695) I edge_fluid_scalar_simplestruct:source (2695) I edge_fluid_scalar_simplestruct:value (2695) I edge_kinetic_distribution (2700) I edge_kinetic_distribution:source (2700) I edge_kinetic_distribution:value (2700) I f_expansion:values (2715) I plasma:energy (2813) I plasma:flux (2813) I source_rate:value (2903)

7.9.5.1.94 complexgrid_scalar_cplx

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.5.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	veccplx_type (7.9.5.1.432)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Complex Vector(nobjects_subgrid). First dimension: object index.
vector	matcplx_type (7.9.5.1.256)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Complex matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dcplx_type (7.9.5.1.72)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d complex array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: e_components:b_binorm (2690) I e_components:b_norm (2690) I e_components:b_para (2690) I e_components:e_binor (2690) I e_components:e_minus (2690) I e_components:e_norm (2690) I e_components:e_para (2690) I e_components:e_plus (2690)

7.9.5.1.95 complexgrid_scalar_int

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.5.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecint_type (7.9.5.1.15)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matint_type (7.9.5.1.13)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dint_type (7.9.5.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: surface:wall_type (2918)

7.9.5.1.96 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.5.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.5.1.14)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.5.1.12)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.5.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.5.1.97 complexgrid_space

Description of a grid space

member	type	description
geotype	vecint_type (7.9.5.1.15)	Type of space geometry (id flags). Flags defining how the geometry (objects.geo) fields associated with; space objects are to be interpreted. Array (number of geometries defined for this space),; first dimension: geometry index. A flag value of GRID_UNDEFINED=0 indicates the standard interpretation for; the given coordinates.
geotypeid	vecstring_type (7.9.5.1.16)	Type of space geometries (id string). See geotype.
coordtype	matint_type (7.9.5.1.13)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
objects(:)	objects (7.9.5.1.277)	Definition of the space objects.; Array of structures (dimension of highest-dimensional objects).; First dimension: dimension of the objects (1=nodes, 2=edges, 3=faces, 4=cells/volumes, ...)
xpoints	vecint_type (7.9.5.1.15)	List of indices of all nodes which are x-points. Vector (number of x-points)

Type of: complexgrid:spaces (2603)

7.9.5.1.98 complexgrid_subgrid

Subgrid definition. A subgrid is a list of grid objects, given as a list of explict or implicit object lists.

member	type	description
id	string (7.9.5.1.4)	ID string (name) of the subgrid.
list(:)	complexgrid_objectlist (7.9.5.1.92)	List of object lists. Array of structures (number of object lists).

Type of: complexgrid:subgrids (2603)

7.9.5.1.99 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this vector quantity is associated with.
label	string (7.9.5.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.5.1.93)	Components of the vector. Array of structures (number of vector components). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.5.1.15)	Alignment flag for vector components. Integer vector (number of vector components).
alignid	vecstring_type (7.9.5.1.16)	Alignment id for vector components. String vector (number of vector components).
basis	integer (7.9.5.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.

Type of: complexgrid:bases (2603) I edge_fluid:b (2693) I edge_fluid_scalar:bndflux (2694) I edge_fluid_scalar:flux (2694) I edge_fluid_scalar_simplestruct:bndflux (2695) I edge_fluid_scalar_simplestruct:flux (2695) I edge_kinetic_distribution

(2700)

7.9.5.1.100 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.5.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.5.1.93)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.5.1.15)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.5.1.16)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (2696) I edge_fluid_scalar_transpcoeff:v (2696) I plasma:b (2813)

7.9.5.1.101 composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.5.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.5.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.5.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.5.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	vecstring_type (7.9.5.1.16)	Label for the ions - note the charge state is not included; String Vector (nion)

Type of: coherentwave:composition (2600) I coredelta:composition (2538) I coreneutrals:composition (2540) I coreprof:composition (2541) I coresource:composition (2542) I coretransp:composition (2543) I distribution:composition (2545) I distsource:composition (2546) I neoclassic:composition (2563) I sawteeth:composition (2571)

7.9.5.1.102 composition_neutrals

Description of neutrals species

member	type	description
atomlist(:)	coreneutrals_atomlist (7.9.5.1.125)	List of the atoms that enter the composition of the neutral species. Vector(natm)
neutral(:)	composition_neutralscomp (7.9.5.1.104)	List of neutrals. Vector(nneut)

Type of: coreneutrals:neutcompo (2540)

7.9.5.1.103 composition_neutrals_neutcomp

Array of components to the atom or molecule. Vector (ncomp)

member	type	description
nucindex	integer (7.9.5.1.3)	Index into list of nuclei; int
multiplicity	integer (7.9.5.1.3)	Multiplicity of the atom; int

Type of: composition_neutralscomp:neutcomp (2619)

7.9.5.1.104 composition_neutralscomp

Array of neutrals.

member	type	description
neutcomp(:)	composition_neutrals_neutcomp (7.9.5.1.103)	Array of components to the atom or molecule. Vector (ncomp)

member	type	description
type(:)	identifier (7.9.5.1.231)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Vector (ntype) of identifiers
label	string (7.9.5.1.4)	String identifying the atom or molecule (e.g. D2, DT, CD4, ...)

Type of: composition_neutrals:neutral (2617) I compositions_type:neutralscomp (2620)

7.9.5.1.105 compositions_type

Attempt to a generic declaration of Plasma composition for a simulation

member	type	description
nuclei(:)	nuclei (7.9.5.1.276)	Array of nuclei considered.
ions(:)	ions (7.9.5.1.236)	Array of main plasma ions.
impurities(:)	impurities (7.9.5.1.233)	Array of impurities.
neutralscomp(:)	composition_neutralscomp (7.9.5.1.104)	Array of neutrals.
edgespecies(:)	edgespecies (7.9.5.1.187)	Array of edge species.
signature	identifier (7.9.5.1.231)	Identifier for species choices. The goal of this is to uniquely capture the species blocks so that if the signatures are the same then the species blocks will also be the same.

Type of: coherentwave:compositions (2600) I compositionc:compositions (2537) I coredelta:compositions (2538) I coreimpur:compositions (2539) I coreneutrals:compositions (2540) I coreprof:compositions (2541) I coresource:compositions (2542) I coretransp:compositions (2543) I distribution:compositions (2545) I distsource:compositions (2546) I edge:compositions (2548) I neoclassic:compositions (2563)

7.9.5.1.106 compound_desc

Description of chemical compounds used in wall element layer compositions

member	type	description
label	string (7.9.5.1.4)	Compound name/label
stochiometry	vecflt_type (7.9.5.1.14)	Composition of the compound. Float vector, dimensions: 1. element number (numbering as in surface.elements array)
density	float (7.9.5.1.2)	Compound density (molecules/m^3)

Type of: surface:compounds (2918)

7.9.5.1.107 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.5.1.4)	Type of coordinate system
grid	reggrid (7.9.5.1.337)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.5.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.5.1.12)	metric coefficients g_11; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.5.1.12)	metric coefficients g_12; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.5.1.12)	metric coefficients g_13; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.5.1.12)	metric coefficients g_22; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.5.1.12)	metric coefficients g_23; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.5.1.12)	metric coefficients g_33; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.5.1.345)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (2550) I mhd_plasma:coord_sys (2774) I mhd_vacuum:coord_sys (2776)

7.9.5.1.108 coordinates

Poloidal and Toroidal coordinates of the center of each hole;

member	type	description
theta	vecflt_type (7.9.5.1.14)	Theta coordinate of holes center; Vector (n_holes)
phi	vecflt_type (7.9.5.1.14)	Toroidal coordinate of holes center; Vector (n_holes)

Type of: holes:coordinates (2745)

7.9.5.1.109 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description
coord	vecflt_type (7.9.5.1.14)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.5.1.16)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.5.1.15)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.5.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.5.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.5.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.5.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.5.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (2923)

7.9.5.1.110 coredelta_values

Description of the delta term for a given origin

member	type	description
deltaid	identifier (7.9.5.1.231)	Identifier for the origin of the delta terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
delta_psi	vecflt_type (7.9.5.1.14)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.5.1.14)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.5.1.12)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.5.1.6)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.5.1.14)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.5.1.12)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.5.1.6)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.5.1.12)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coredelta:values (2538)

7.9.5.1.111 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.5.1.14)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.5.1.14)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Vector (nrho)

member	type	description
ddt	vecflt_type (7.9.5.1.14)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Vector (nrho)
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.5.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.5.1.78)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.5.1.390)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.5.1.130)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.5.1.204)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	vecflt_type (7.9.5.1.14)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Vector (nrho)
time_deriv	vecflt_type (7.9.5.1.14)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coreprof:ne (2541) I coreprof:te (2541)

7.9.5.1.112 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.5.1.12)	Signal value; Time-dependent; Matrix (nrho,nion)
ddrho	matflt_type (7.9.5.1.12)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
d2drho2	matflt_type (7.9.5.1.12)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Matrix (nrho,nion)
ddt	matflt_type (7.9.5.1.12)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.5.1.15)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.5.1.80)	Boundary condition for the transport equation
source_term	sourceion (7.9.5.1.392)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.5.1.132)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.5.1.206)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	matflt_type (7.9.5.1.12)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Matrix(nrho,nion)
time_deriv	matflt_type (7.9.5.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coreprof:ni (2541) I coreprof:ti (2541) I coreprof:vtor (2541)

7.9.5.1.113 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.5.1.14)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.5.1.77)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:n0 (2641)

7.9.5.1.114 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.5.1.14)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.5.1.77)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:t0 (2641)

7.9.5.1.115 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Vector(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.5.1.77)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (2631) I corefieldneutralv0:radial (2631) I corefieldneutralv0:toroidal (2631)

7.9.5.1.116 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.5.1.115)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.5.1.115)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.5.1.115)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: coreneutrals_neutraltype:v0 (2641)

7.9.5.1.117 coreimpurdiag_sum_radiation

member	type	description
line_rad	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS
brem_radrec	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS
sum	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS

Type of: coreimpurediag_sum:radiation (2635)

7.9.5.1.118 coreimpurediag_energy

member	type	description
ionization	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS
recombin	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS
sum	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS

Type of: coreimpurediag_type:energy (2637)

7.9.5.1.119 coreimpurediag_radiation

member	type	description
line_rad	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS
brem_radrec	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS
sum	coreimpurediagprof_type (7.9.5.1.123)	NO DOCS

Type of: coreimpurediag_type:radiation (2637)

7.9.5.1.120 coreimpurediag_sum

member	type	description
radiation	coreimpurdiag_sum_radiation (7.9.5.1.117)	NO DOCS
energy	coreimpurediag_sum_energy (7.9.5.1.121)	NO DOCS

Type of: coreimpur:diagnosticsum (2539)

7.9.5.1.121 coreimpurediag_sum_energy

member	type	description
ionization	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS
recombin	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS
sum	coreimpurediagsum_type (7.9.5.1.124)	NO DOCS

Type of: coreimpurediag_sum:energy (2635)

7.9.5.1.122 coreimpurediag_type

member	type	description
radiation	coreimpurediag_radiation (7.9.5.1.119)	NO DOCS
energy	coreimpurediag_energy (7.9.5.1.118)	NO DOCS

Type of: coreimpur:diagnostic (2539) I impurity_type:diagnostic (2749)

7.9.5.1.123 coreimpurediagprof_type

member	type	description
profile	matflt_type (7.9.5.1.12)	Profile of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)
integral	matflt_type (7.9.5.1.12)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)

Type of: coreimpurediag_energy:ionization (2633) I coreimpurediag_energy:recombin (2633) I coreimpurediag_energy:sum (2633) I coreimpurediag_radiation:brem_radrec (2634) I coreimpurediag_radiation:line_rad (2634) I coreimpurediag_radiation:sum (2634)

7.9.5.1.124 coreimpurediagsum_type

member	type	description
profile	vecflt_type (7.9.5.1.14)	Profile of the radiation or energy sources. Time-dependent. Array1D (nrho)
integral	vecflt_type (7.9.5.1.14)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array1D (nrho)

Type of: coreimpurdiag_sum_radiation:brem_radrec (2632) I coreimpurdiag_sum_radiation:line_rad (2632) I coreimpurdiag_sum_radiation:sum (2632) I coreimpurediag_sum_energy:ionization (2636) I coreimpurediag_sum_energy:recom (2636) I coreimpurediag_sum_energy:sum (2636)

7.9.5.1.125 coreneutrals_atomlist

List of the atoms that enter the composition of the neutral species. Vector(natm)

member	type	description
amn	float (7.9.5.1.2)	Atomic mass number; Float
zn	float (7.9.5.1.2)	Nuclear charge; Float
ionimptype	identifier (7.9.5.1.231)	Identifier whether ion in coreprof or impurity in coreimpur.
ionimpindex	integer (7.9.5.1.3)	Index in composition or desc_impur of the corresponding ion or impurity.

Type of: composition_neutrals:atomlist (2617)

7.9.5.1.126 coreneutrals_neutraltype

Array (ntype) over neutral types.

member	type	description
n0	corefieldneutral (7.9.5.1.113)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.5.1.114)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.5.1.116)	Neutral velocity [m.s^-1]. Time-dependent;

Type of: neutral_complex_type:neutraltype (2789)

7.9.5.1.127 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (2819) I profiles1d:dpedt (2819) I profiles1d:dpi_totdt (2819) I profiles1d:dvprimedt (2819) I profiles1d:e_b (2819) I profiles1d:eparallel (2819) I profiles1d:jni (2819) I profiles1d:joh (2819) I profiles1d:jphi (2819) I profiles1d:jtot (2819) I profiles1d:pe (2819) I profiles1d:pi_tot (2819) I profiles1d:pr_parallel (2819) I profiles1d:pr_perp (2819) I profiles1d:pr_th (2819) I profiles1d:q (2819) I profiles1d:qei (2819) I profiles1d:shear (2819) I profiles1d:sigmapar (2819) I profiles1d:vloop (2819) I profiles1d:zeff (2819) I psi:sigma_par (2821)

7.9.5.1.128 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.5.1.12)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (2819) I profiles1d:ns (2819) I profiles1d:pi (2819) I profiles1d:wtor (2819)

7.9.5.1.129 coresource_values

Description of the source terms for a given origin

member	type	description
member	type	description
sourceid	identifier (7.9.5.1.231)	Identifier for the origin of the source terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
j	vecflt_type (7.9.5.1.14)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.5.1.14)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.5.1.385)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_vec (7.9.5.1.389)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz(:)	source_imp (7.9.5.1.384)	Particle source for impurity density transport equation [m^-3.s^-1]. Time-dependent.
qi	source_ion (7.9.5.1.385)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_vec (7.9.5.1.389)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz(:)	source_imp (7.9.5.1.384)	Heat source for impurity heat transport equations [W.m^-3]. Time-dependent.
ui	source_ion (7.9.5.1.385)	Toroidal torque on individual ion species; for toroidal momentum transport equation [kg.m^-1.s^-2]. Time-dependent.
ujxb	source_vec (7.9.5.1.389)	Toroidal JxB torque on bulk plasma; for toroidal momentum transport equation [kg.m^-1.s^-2]. Here J is the return current from fast ion radial currents Jfast=-J. Time-dependent.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coresource:values (2542)

7.9.5.1.130 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.5.1.14)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.5.1.14)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (2626)

7.9.5.1.131 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	matflt_type (7.9.5.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array2D(nrho,nzimp)
vconv	matflt_type (7.9.5.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Array2D (nrho,nzimp)
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:transp_coef (2749)

7.9.5.1.132 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.5.1.12)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.5.1.12)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (2627)

7.9.5.1.133 coretransp_values

Description of transport term coming from various origins. Array of structure (ntransp)

member	type	description
transportid	identifier (7.9.5.1.231)	Identifier for the origin of the transport terms (see conventions in the ITM website)
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
sigma	vecflt_type (7.9.5.1.14)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.5.1.275)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.5.1.273)	Transport coefficients for electron density equation. Time-dependent.
nz_transp(:)	transcoefimp (7.9.5.1.416)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.5.1.417)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.5.1.415)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp(:)	transcoefimp (7.9.5.1.416)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.5.1.418)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coretransp:values (2543)

7.9.5.1.134 cplx_type

Temporary structure for real and imaginary part of complex numbers (scalar)

member	type	description
re	float (7.9.5.1.2)	Real part
im	float (7.9.5.1.2)	Imaginary part

7.9.5.1.135 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.5.1.198)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.5.1.198)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.5.1.198)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (2544)

7.9.5.1.136 cxsetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.5.1.349)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (2544)

7.9.5.1.137 data_release

Stores information about each entry available at this version.

member	type	description
shot	integer (7.9.5.1.3)	Shot number = Mass*100+Nuclear_charge.
run	integer (7.9.5.1.3)	Which run number is the active run number for this version.
description	vecstring_type (7.9.5.1.16)	Possible description of why this version of the data is the current version.

Type of: version_ind:data_release (2948)

7.9.5.1.138 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.5.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.5.1.4)	Date at which the data has been put in the DB
source	string (7.9.5.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.5.1.4)	Any additional comment
cocos	integer (7.9.5.1.3)	COordinates COnventionS followed by this CPO
id	integer (7.9.5.1.3)	CPO id for checking its provenance in the workflow
isref	integer (7.9.5.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.5.1.454)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.5.1.307)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (2535) I antennas:datainfo (2536) I compositionc:datainfo (2537) I coredelta:datainfo (2538) I coreimpur:datainfo (2539) I coreneutrals:datainfo (2540) I coreprof:datainfo (2541) I coresource:datainfo (2542) I coretransp:datainfo (2543) I cxdiag:datainfo (2544) I distribution:datainfo (2545) I distsource:datainfo (2546) I ecediag:datainfo (2547) I edge:datainfo (2548) I efcc:datainfo (2549) I equilibrium:datainfo (2550) I flush:datainfo (2717) I fusiondiag:datainfo (2551) I halphadiag:datainfo (2552) I ironmodel:datainfo (2554) I langmuirdiag:datainfo (2555) I launchs:datainfo (2556) I limiter:datainfo (2557) I lineintegraldiag:datainfo (2764) I lithiumdiag:datainfo (2558) I magdiag:datainfo (2559) I mhd:datainfo (2560) I msediag:datainfo (2561) I nbi:datainfo (2562) I neoclassic:datainfo (2563) I orbit:datainfo (2564) I pellets:datainfo (2565) I pfsystems:datainfo (2566) I reference:datainfo (2568) I reflectomet:datainfo (2569) I rfadiag:datainfo (2570) I sawteeth:datainfo (2571) I scenario:datainfo (2572) I summary:datainfo (2573) I toroidfield:datainfo (2575) I tsdiag:datainfo (2576) I turbulence:datainfo (2577) I vessel:datainfo (2578) I wall:datainfo (2579) I waves:datainfo (2580)

7.9.5.1.139 deposprofile

Deposition profile (m^-3). This deposition profile only makes sense after the ablated pellet cloud interacts via some transport processes with the plasma. This is why we add a time delay stamp to the profile in reference to the ablation rate profile. Time-dependent. Vector (npos)

member	type	description
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
density	vecflt_type (7.9.5.1.14)	Density increase (deposition profile); (m^-3)
position	rzphi1D (7.9.5.1.348)	Coordinates for abblation rate
delay	float (7.9.5.1.2)	Time delay between the deposition profile and the ablation profile; Scalar; Time-dependent (s)

Type of: pellets:deposprofile (2565)

7.9.5.1.140 desc_coils

Description of the coils

member	type	description
name	string (7.9.5.1.4)	Name of coil.
res	float (7.9.5.1.2)	Coil resistance [Ohm]
nturns	integer (7.9.5.1.3)	number of turns inside the coil
closed	string (7.9.5.1.4)	Identify whether the coil is closed (y) or open (n). For closed coils there is no need to replicate the first r,z,phi point as last point
edges(:)	edges (7.9.5.1.186)	Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

Type of: coil:desc_coils (2601)

7.9.5.1.141 desc_impur

Description of the impurities (list of ion species and possibly different charge states)

member	type	description
amn	vecflt_type (7.9.5.1.14)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.5.1.15)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.5.1.15)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.5.1.15)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.5.1.13)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.5.1.13)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)
label	vecstring_type (7.9.5.1.16)	Label for the impurities - note that the charge state is not included; String Vector (nimp)

Type of: coredelta:desc_impur (2538) I coreimpur:desc_impur (2539) I coreneutrals:desc_impur (2540) I coreprof:desc_impur (2541) I coresource:desc_impur (2542) I coretransp:desc_impur (2543) I neoclassic:desc_impur (2563)

7.9.5.1.142 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.5.1.16)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.5.1.288)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.5.1.224)	Geometry of the iron segments

Type of: ironmodel:desc_iron (2554)

7.9.5.1.143 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.5.1.16)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.5.1.14)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.5.1.14)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
nelement	vecint_type (7.9.5.1.15)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.5.1.291)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (2805)

7.9.5.1.144 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.5.1.16)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.5.1.16)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.5.1.14)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.5.1.201)	Laplace proper filter
imin	vecflt_type (7.9.5.1.14)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.5.1.14)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.5.1.14)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.5.1.14)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.5.1.14)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.5.1.14)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (2810)

7.9.5.1.145 diag_func

Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

member	type	description
description	string (7.9.5.1.4)	Short description of the detector with reference to the number of cells (ncells).
transf_mat	matflt_type (7.9.5.1.12)	Transfer matrix of the detector. Each l.o.s. might have a dedicated detector response function and energy resolution (and number of cells). Time-independent. Matrix (ncells,nenergy)

Type of: fusiondiag_detect_ct_energy:diag_func (2732)

7.9.5.1.146 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.5.1.150)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions(:)	topo_regions (7.9.5.1.412)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expan_topo (2662)

7.9.5.1.147 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.

member	type	description
is_delta_f	integer (7.9.5.1.3)	If is_full_f=1, then the distribution represents the deviation from a Maxwellian; is_full_f=0, then the distribution represents all particles, i.e. the full-f solution.
markers	weighted_markers (7.9.5.1.453)	Distribution represented by a set of markers (test particles).
f_expan_topo(:)	dist_ff (7.9.5.1.146)	TO BE REMOVED. KEPT TEMPORARILY AS AN ALTERNATIVE TO f_expansion. [Distribution function, f, expanded into a vector of successive approximations (topology-based formulation, without the grid-cpo). The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)]
f_expansion(:)	f_expansion (7.9.5.1.200)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (2683)

7.9.5.1.148 dist_glob

Global parameters (in most cases volume integrated and surface averaged quanatities).

member	type	description
n_particles	float (7.9.5.1.2)	Number of particles in the distribution (note: this is the number of real particles and not markers); Time-dependent
enrg	float (7.9.5.1.2)	Energy content of the distribution [J]; Time-dependent
enrg_para	float (7.9.5.1.2)	Parallel energy content of the distribution [J]; Time-dependent

member	type	description
pow_coll_i	vecflt_type (7.9.5.1.14)	Collisional power to ions [W]; Time-dependent; Matrix(nion)
pow_coll_e	float (7.9.5.1.2)	Collisional power to the electrons [W]; Time-dependent
therm_src	dist_src_snk_tot (7.9.5.1.165)	Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_glob_dist_losses (7.9.5.1.149)	Losses of the distribution species (orbit losses and neutralisation losses).
cur_dr_tor	float (7.9.5.1.2)	Toroidal current of non-thermal particles (excluding electron back current for fast ions) [A]; Time-dependent.
trq_i	vecflt_type (7.9.5.1.14)	Collisional torque to background ions [N.m]; Time-dependent; Vector (nion)
trq_e	float (7.9.5.1.2)	Collisional torque to electrons [N.m]; Time-dependent
trq_j_rxb	float (7.9.5.1.2)	Torque due to radial currents of non-thermal particles [N.m]; Time-dependent.
nucl_reac_th	dist_nucl_reac_th (7.9.5.1.155)	Nuclear reactions between the calculated species and other species assumed to have thermal distributions.
nucl_reac_sf	dist_nucl_reac_sf (7.9.5.1.154)	Nuclear reactions of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:global_param (2683)

7.9.5.1.149 dist_glob_dist_losses

Losses of the distribution species (orbit losses and neutralisation losses).

member	type	description
orb_loss	dist_src_snk_tot (7.9.5.1.165)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_tot (7.9.5.1.165)	Losses due to neutralisation of distribution ions (charge exchange etc.)

Type of: dist_glob:losses (2663)

7.9.5.1.150 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.5.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)
ngriddim	integer (7.9.5.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.5.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.5.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.5.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf(:)	omnigen_surf (7.9.5.1.280)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (2661)

7.9.5.1.151 dist_input_src

Input sources of particles and power for the distribution species (to aid diagnosing the code output).

member	type	description
particle_src	dist_particle_src (7.9.5.1.156)	Particle source
wave_src	dist_wave_src (7.9.5.1.167)	Auxiliary wave absorbed by the distribution species

Type of: distri_vec:input_src (2683)

7.9.5.1.152 dist_markers

Distribution given as a set of markers (test particles).

member	type	description
nvar	float (7.9.5.1.2)	Number of variables associated with a marker (test particle)
var_id	vecint_type (7.9.5.1.15)	Identification of phase space variables. var_id(K) describe the variable represented in varK, for K=1,2...7. The possible variables are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
var1	vecflt_type (7.9.5.1.14)	Phase space variables one characterising the markers; Time-dependent; Vector (ntpart)
var2	vecflt_type (7.9.5.1.14)	Phase space variables two characterising the markers; Time-dependent; Vector (ntpart)
var3	vecflt_type (7.9.5.1.14)	Phase space variables three characterising the markers; Time-dependent; Vector (ntpart)
var4	vecflt_type (7.9.5.1.14)	Phase space variables four characterising the markers; Time-dependent; Vector (ntpart)
var5	vecflt_type (7.9.5.1.14)	Phase space variables five characterising the markers; Time-dependent; Vector (ntpart)
var6	vecflt_type (7.9.5.1.14)	Phase space variables six characterising the markers; Time-dependent; Vector (ntpart)
var7	vecflt_type (7.9.5.1.14)	Phase space variables seven characterising the markers; Time-dependent; Vector (ntpart)
weight	vecflt_type (7.9.5.1.14)	Weight of the markers; Time-dependent; Vector (ntpart)

7.9.5.1.153 dist_nucl_reac

Information on nuclear reactions involving the calculated species.

member	type	description
point_reac	vecint_type (7.9.5.1.15)	Pointer to a species in composition who can undergo a nuclear reaction with the calculated species; Vector (nreac)
id_reac	vecint_type (7.9.5.1.15)	Identification of the reaction between the calculated species and a background species (including which branch if applicable); Time-dependent; Vector (nreac). Table defining the index of reactions to be provided.

Type of: distri_vec:nucl_reac (2683)

7.9.5.1.154 dist_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	float (7.9.5.1.2)	Reaction rate [1/s]; Time-dependent
power	float (7.9.5.1.2)	Fusion reaction power[W]; Time-dependent

Type of: dist_glob:nucl_reac_sf (2663)

7.9.5.1.155 dist_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	vecflt_type (7.9.5.1.14)	Reaction rate [1/s]; Time-dependent; Vector (nreac)
power	vecflt_type (7.9.5.1.14)	Fusion reaction power[W]; Time-dependent; Vector (nreac)

Type of: dist_glob:nucl_reac_th (2663)

7.9.5.1.156 dist_particle_src

Particle source

member	type	description
total	dist_src_snk_tot (7.9.5.1.165)	Total source of particles and power (NBI, fusion products, pellets etc.)
volume_intgr	dist_src_snk_vol (7.9.5.1.166)	Volume integrated source of particles and power (NBI, fusion products, pellets etc.)
flux_surf_av	dist_src_snk_surf (7.9.5.1.164)	Flux surface averaged source of particles and power (NBI, fusion products, pellets etc.)

Type of: dist_input_src:particle_src (2666)

7.9.5.1.157 dist_prof_surf_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_surf (7.9.5.1.164)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_surf (7.9.5.1.164)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:lossesd (2678)

7.9.5.1.158 dist_prof_surf_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.5.1.14)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (npsi)
power	vecflt_type (7.9.5.1.14)	Fusion reaction power [W.m^-3]; Time-dependent; Matrix (npsi)

Type of: dist_profiles:nucl_rd_sf (2678)

7.9.5.1.159 dist_prof_surf_nucl_reac_th

Nuclear reactions between the cacluated species and oher species assumed to have thermal distributions.

member	type	description
rated	matflt_type (7.9.5.1.12)	Reaction rate [s^-1.m^-3]; Time-dependent; Matrix (nreac, max_npsi)
powerd	matflt_type (7.9.5.1.12)	Nuclear reaction power density [W.m^-3]; Time-dependent; Matrix (nreac, max_npsi)

Type of: dist_profiles:nucl_rd_th (2678)

7.9.5.1.160 dist_prof_vol_dist_losses

Losses of the distribution species.

member	type	description
orb_loss	dist_src_snk_vol (7.9.5.1.166)	Losses due to orbits intersecting a material surface.
neutr_loss	dist_src_snk_vol (7.9.5.1.166)	Losses due to neutralised ions, e.g. due to charge exchange events.

Type of: dist_profiles:losses (2678)

7.9.5.1.161 dist_prof_vol_nucl_reac_sf

Nuclear reactions of the calculated species with itself (thermal + non-thermal).

member	type	description
rate	vecflt_type (7.9.5.1.14)	Reaction rate [1/s]; Time-dependent; Vector (npsi)
power	vecflt_type (7.9.5.1.14)	Fusion reaction power[W]; Time-dependent; Vector (npsi)

Type of: dist_profiles:nucl_reac_sf (2678)

7.9.5.1.162 dist_prof_vol_nucl_reac_th

Nuclear reactions between the calculated species and other species assumed to have thermal distributions.

member	type	description
rate	matflt_type (7.9.5.1.12)	Reaction rate [1/s]; Time-dependent; Matrix (nreac, npsi)
power	matflt_type (7.9.5.1.12)	Fusion reaction power[W]; Time-dependent; Matrix (nreac, npsi)

Type of: dist_profiles:nucl_reac_th (2678)

7.9.5.1.163 dist_profiles

Profiles (volume integrated and flux surface averaged)

member	type	description
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.5.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
dens	vecflt_type (7.9.5.1.14)	Flux surface averaged particle density of the distribution [J/m^3]; Time-dependent; Vector (npsi)
enrgd_tot	vecflt_type (7.9.5.1.14)	Flux surface averaged energy density of the distribution [J/m^3]; Time-dependent; Vector (npsi)
enrgd_para	vecflt_type (7.9.5.1.14)	Flux surface averaged parallel energy density of the distribution [J/m^3] Time-dependent; Vector (npsi).
powd_coll_i	matflt_type (7.9.5.1.12)	Flux surface averaged collisional power to ions [W.m^-3]; Time-dependent; Matrix (nion, npsi)
powd_coll_e	vecflt_type (7.9.5.1.14)	Flux surface averaged collisional power to the electrons [W.m^-3]; Time-dependent; Vector(npsi)
therm_srcd	dist_src_snk_surf (7.9.5.1.164)	Flux surface averaged source of particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).
lossesd	dist_prof_surf_dist_losses (7.9.5.1.157)	Particle loss densities due to charge exchange events with neutrals or orbits intersecting material surfaces.
curd_fp	vecflt_type (7.9.5.1.14)	Flux surface averaged toroidal current density of non-thermal (fast) particles of the distribution species (excluding electron back current for fast ions) [A.m^-2]; Time-dependent; Vector (npsi).
curd_dr	vecflt_type (7.9.5.1.14)	Total toroidal driven current density (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi)
trqd_i	matflt_type (7.9.5.1.12)	Flux surface averaged collisional toroidal torque to background ions [N.m^-2]; Time-dependent; Matrix (nion, npsi)
trqd_e	vecflt_type (7.9.5.1.14)	Flux surface averaged collisional toroidal torque density to electrons [N.m^-2]; Time-dependent; Vector (npsi)
trqd_jrxb	vecflt_type (7.9.5.1.14)	Toroidal torque density due to radial currents of non-thermal particles of the distribution species [N.m^-2]; Time-dependent; Vector (npsi)
nucl_rd_th	dist_prof_surf_nucl_reac_th (7.9.5.1.159)	Nuclear reaction rate densities for reactions between the cacluated species and other species assumed to have thermal distributions.
nucl_rd_sf	dist_prof_surf_nucl_reac_sf (7.9.5.1.158)	Nuclear reaction rate densities for reactions of the calculated species with itself (thermal + non-thermal).
enrg_tot	vecflt_type (7.9.5.1.14)	Energy content of of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
enrg_para	vecflt_type (7.9.5.1.14)	Parallel energy content of a distribution species [J] inside a flux surface; Time-dependent; Vector (npsi)
pow_coll_i	matflt_type (7.9.5.1.12)	Collisional power to ions inside a flux surface [W]; Time-dependent; Matrix(nion, npsi)
pow_coll_e	vecflt_type (7.9.5.1.14)	Collisional power to the electrons inside a flux surface [W]; Time-dependent; Vector(npsi)
therm_src	dist_src_snk_vol (7.9.5.1.166)	Source particles and power inside a flux surface due to particles of the distribution species being thermalised (merging into the thermal plasma).
losses	dist_prof_vol_dist_losses (7.9.5.1.160)	Particle loss inside flux surface due to charge exchange events.

member	type	description
cur_fp	vecflt_type (7.9.5.1.14)	Toroidal current of non-thermal (fast) particles driven inside a flux surface (does not include electron back current for fast ions) [A]; Time-dependent; Vector (npsi)
cur_dr	vecflt_type (7.9.5.1.14)	Total toroidal current driven inside a flux surface (including electron back current in the presence of fast ions) [A]; Time-dependent; Vector (npsi).
trq_i	matflt_type (7.9.5.1.12)	Collisional toroidal torque to background ions inside a flux surface [N.m]; Time-dependent; Matrix (nion, npsi)
trq_e	vecflt_type (7.9.5.1.14)	Collisional toroidal torque to electrons inside a flux surface [N.m]; Time-dependent; Vector (npsi)
trq_j_rxb	vecflt_type (7.9.5.1.14)	Toroidal torque due to radial currents of non-thermal particles of the distribution species [N.m]; Time-dependent; Vector (npsi)
nucl_reac_th	dist_prof_vol_nucl_reac_th (7.9.5.1.162)	Nuclear reactions inside a flux surface involving the distribution species and other species assumed to be thermal.
nucl_reac_sf	dist_prof_vol_nucl_reac_sf (7.9.5.1.161)	Nuclear reactions inside a flux surface of the calculated species with itself (thermal + non-thermal).

Type of: distri_vec:profiles_1d (2683)

7.9.5.1.164 dist_src_snk_surf

Losses due to orbits intersecting a material surface.

member	type	description
particlesd	vecflt_type (7.9.5.1.14)	Source/sink particles [s^-1 m^-3]; Time-dependedent; Vector (npsi)
powerd	vecflt_type (7.9.5.1.14)	Power density associated with the source/sink of particles [W.m^-3]; Time-dependent; Vector (npsi)
torqued	vecflt_type (7.9.5.1.14)	Torque density due to the source/sink of particles [N.m^-2]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:flux_surf_av (2671) I dist_prof_surf_dist_losses:neutr_loss (2672) I dist_prof_surf_dist_losses:orb_loss (2672) I dist_profiles:therm_srcd (2678)

7.9.5.1.165 dist_src_snk_tot

Source particles and power due to particles of the distribution species being thermalised (merging into the thermal plasma).

member	type	description
particles	float (7.9.5.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.5.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.5.1.2)	Torque due to the source/sink of particles [N.m]; Time-dependent

Type of: dist_glob:therm_src (2663) I dist_glob_dist_losses:neutr_loss (2664) I dist_glob_dist_losses:orb_loss (2664) I dist_particle_src:total (2671)

7.9.5.1.166 dist_src_snk_vol

Losses due to orbits intersecting a material surface.

member	type	description
particles	vecflt_type (7.9.5.1.14)	Source/sink particles [1/s]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.5.1.14)	Power associated with the source/sink of particles [W]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.5.1.14)	Torque due to the source/sink of particles [N.m]; Time-dependent; Vector (npsi)

Type of: dist_particle_src:volume_intgr (2671) I dist_prof_vol_dist_losses:neutr_loss (2675) I dist_prof_vol_dist_losses:orb_loss (2675) I dist_profiles:therm_src (2678)

7.9.5.1.167 dist_wave_src

Auxiliary wave absorbed by the distribution species

member	type	description
type	string (7.9.5.1.4)	Wave type (LH, EC, IC, ...), can be a combination of these if several wave types are absorbed by this species.
wave_power	float (7.9.5.1.2)	Auxiliary wave power absorbed by the distribution species [W]; Time-dependent.

member	type	description
wave_powerd	vecflt_type (7.9.5.1.14)	Auxiliary flux surface averaged wave power density absorbed by the distribution species [W/m^3]; Time-dependent; Vector (npsi)

Type of: dist_input_src:wave_src (2666)

7.9.5.1.168 distri_vec

Vector over all distribution functions; Time-dependent. Structure array(ndistri_vec)

member	type	description
wave_id(:)	enum_instance (7.9.5.1.190)	List all waves affecting the distribution, as specified in waves(*)%coherentwave(*)%wave_id. Vector(n_antennas)
source_id(:)	enum_instance (7.9.5.1.190)	List all neutral beam injectors and reactions contributing to the source, as specified in distsource(*)%source(*)%source_id. Vector(n_injectors_and_reactions)
calc_spec	integer (7.9.5.1.3)	Pointer to the species for which the distribution function(s) is/are calculated and whose characteristics are given in composition (for ions). Value 0 means electrons.
gyro_type	integer (7.9.5.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle position; 2 = given at the gyro centre of the particle position.
global_param	dist_glob (7.9.5.1.148)	Global parameters (in most cases volume integrated and surface averaged quanatities).
profiles_1d	dist_profiles (7.9.5.1.163)	Profiles (volume integrated and flux surface averaged)
dist_func	dist_func (7.9.5.1.147)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution.
input_src	dist_input_src (7.9.5.1.151)	Input sources of particles and power for the distribution species (to aid diagnosing the code output).
nucl_reac	dist_nucl_reac (7.9.5.1.153)	Information on nuclear reactions involving the calculated species.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: distribution:distri_vec (2545)

7.9.5.1.169 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.5.1.197)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.5.1.197)	Particle source rate [1/s]; Time-dependent.

Type of: distsource_source:global_param (2688)

7.9.5.1.170 distsource_line_src_prof

1D profiles representation of a line source

member	type	description
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.5.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp = |grad psi| / (R 2 pi). Time-dependent; Vector (npsi)
R	vecflt_type (7.9.5.1.14)	Major radius at the line source. Time-dependent; Vector (npsi)
Z	vecflt_type (7.9.5.1.14)	Vertical position of the line source. Time-dependent; Vector (npsi)
theta	vecflt_type (7.9.5.1.14)	Polidal angle [rad]. Time-dependent; Vector (npsi)
theta_id	vecflt_type (7.9.5.1.14)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.5.1.12)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)
pitch	vecflt_type (7.9.5.1.14)	Pitch (i.e. v_parallel/v) of source particles. Time-dependent; Vector (npsi)
energy	vecflt_type (7.9.5.1.14)	Kinetic energy of source particles [eV]. Time-dependent; Vector (npsi)
ang_momentum	vecflt_type (7.9.5.1.14)	Kinetic angular momentum of a single source particles, R m v_phi [Nms]. Time-dependent; Vector (npsi)

member	type	description
src_rate	vecflt_type (7.9.5.1.14)	Source density of particles [1/m^3/s]. Time-dependent; Vector (npsi)

Type of: distsource_source:line_srcprof (2688)

7.9.5.1.171 distsource_profiles_1d

1D radial profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.5.1.14)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.5.1.198)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.5.1.198)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (2688)

7.9.5.1.172 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.5.1.15)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.5.1.12)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.5.1.12)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.5.1.12)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.5.1.12)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.5.1.12)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g22	matflt_type (7.9.5.1.12)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.5.1.199)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.5.1.199)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (2688)

7.9.5.1.173 distsource_source

Source

member	type	description
source_id(:)	enum_instance (7.9.5.1.190)	List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for type: NBI or reaction names (see specifications on the ITM webpages); the field name should either be taken from nbi(*)%nbi_unit(*)%name, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)
src_spec	integer (7.9.5.1.3)	Pointer to the source species whose characteristics are given in composition.
gyro_type	integer (7.9.5.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle birth point; 2 =given at the gyro centre of the birth point.

member	type	description
global_param	distsource_global_param (7.9.5.1.169)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.5.1.171)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.5.1.172)	2D source profiles in terms of two phase space coordinates
line_srcprof(:)	distsource_line_src_prof (7.9.5.1.170)	1D profiles representation of a line source
source_rate	source_rate (7.9.5.1.388)	Source density of particles in phase space (real space, velocity space, spin state).
source_grid	source_on_grid (7.9.5.1.387)	TO BE REMOVED, being replaced by source_rate. Kept only to make smooth transition between data-type versions. [Source density of particles in phase space (real space, velocity space, spin state); simplified formulation, without the grid-cpo.]
markers	weighted_markers (7.9.5.1.453)	Source given as a set of markers (test particles) born per second.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: distsource:source (2546)

7.9.5.1.174 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.5.1.14)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.5.1.14)	Beam divergence for a unit in the vertical direction[rad]. Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.5.1.14)	Beam divergence for a unit in the horizontal direction[rad]. Vector(ndiv_comp)

Type of: setup_inject:divergence (2893)

7.9.5.1.175 e_components

E-field representation in terms of the parallel and circularly polarised components

member	type	description
e_plus	complexgrid_scalar_cplx (7.9.5.1.94)	Left hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_minus	complexgrid_scalar_cplx (7.9.5.1.94)	Right hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_para	complexgrid_scalar_cplx (7.9.5.1.94)	Parallel (to the static magnetic field) component of electric field [V/m]. Time-dependent; Complexgrid_scalar
e_norm	complexgrid_scalar_cplx (7.9.5.1.94)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
e_binorm	complexgrid_scalar_cplx (7.9.5.1.94)	Magnitude of perpendicular (to the static magnetic field) wave electric field tangent to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
b_norm	complexgrid_scalar_cplx (7.9.5.1.94)	Magnitude of perpendicular (to the static magnetic field) wave magnetic field normal to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_binorm	complexgrid_scalar_cplx (7.9.5.1.94)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_para	complexgrid_scalar_cplx (7.9.5.1.94)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Complexgrid_scalar

Type of: fullwave:e_components (2722)

7.9.5.1.176 ecemeasure

Measured values

member	type	description
harmonic	integer (7.9.5.1.3)	Harmonic detected by the ECE channels. Time-dependent.
position	rzphi1Dexp (7.9.5.1.349)	Position of the measurement. Time-dependent. Vector (nchannels)
te	exp1D (7.9.5.1.198)	Electron temperature [eV]. Time-dependent. Vector (nchannels)

Type of: ecediag:measure (2547)

7.9.5.1.177 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.5.1.14)	Frequency of the ECE channels. Vector (nchannels)
los	setup_line (7.9.5.1.379)	Geometry of the line of sight.

Type of: ecediag:setup (2547)

7.9.5.1.178 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.5.1.180)	Electron density [1/m^3]; Time-dependent;
ni(:)	edge_fluid_scalar (7.9.5.1.179)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.5.1.183)	Electron velocity [m/s]; Time-dependent;
vi(:)	edge_fluid_vector (7.9.5.1.182)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.5.1.180)	Electron temperature [eV]; Time-dependent;
ti(:)	edge_fluid_scalar (7.9.5.1.179)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.5.1.183)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso(:)	edge_fluid_vector (7.9.5.1.182)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.5.1.180)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.5.1.183)	Electric current [A]; Time-dependent;
b(:)	complexgrid_vector (7.9.5.1.99)	Magnetic field vector [T]; Time-dependent;

Type of: edge:fluid (2548)

7.9.5.1.179 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value(:)	complexgrid_scalar (7.9.5.1.93)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.5.1.93)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.5.1.99)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.5.1.99)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.5.1.181)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.5.1.93)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (2693) I edge_fluid:ti (2693) I edge_fluid_vector:comps (2697) I edge_fluid_vector_simplestruct:comps (2698)

7.9.5.1.180 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value(:)	complexgrid_scalar (7.9.5.1.93)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.5.1.93)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.5.1.99)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.5.1.99)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.5.1.181)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.5.1.93)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (2693) I edge_fluid:po (2693) I edge_fluid:te (2693)

7.9.5.1.181 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.5.1.100)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.5.1.100)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (2694) I edge_fluid_scalar_simplestruct:transpcoeff (2695)

7.9.5.1.182 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.5.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
align	vecint_type (7.9.5.1.15)	Alignment of vector components, numerical flag. Int vector (number of vector components);
alignid	vecstring_type (7.9.5.1.16)	Alignment of vector components, string description. String vector (number of vector components);
comps(:)	edge_fluid_scalar (7.9.5.1.179)	Components of the vector. Array of structures (number of vector components); Time-dependent;

Type of: edge_fluid:ti_aniso (2693) I edge_fluid:vi (2693)

7.9.5.1.183 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
griduid	integer (7.9.5.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.5.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
comps(:)	edge_fluid_scalar (7.9.5.1.179)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.5.1.15)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.5.1.16)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (2693) I edge_fluid:te_aniso (2693) I edge_fluid:ve (2693)

7.9.5.1.184 edge_kinetic

Kinetic quantities

member	type	description
f(:)	edge_kinetic_distribution (7.9.5.1.185)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (2548)

7.9.5.1.185 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value(:)	complexgrid_scalar (7.9.5.1.93)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue(:)	complexgrid_scalar (7.9.5.1.93)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes(:)	complexgrid_vector (7.9.5.1.99)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source(:)	complexgrid_scalar (7.9.5.1.93)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (2699)

7.9.5.1.186 edges

Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

member	type	description
edge_rzphi	rzphi1D (7.9.5.1.348)	Sequence of points describing a coil edge. Vector (npoints)

Type of: desc_coils:edges (2655)

7.9.5.1.187 edgespecies

Array of edge species.

member	type	description
nucindex	integer (7.9.5.1.3)	Index into list of nuclei; int
zmin	float (7.9.5.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.5.1.2)	Maximum Z of species charge state bundle
label	string (7.9.5.1.4)	String identifying the species (e.g. D0, D+, C0, C+, C+2, ...)

Type of: compositions_type:edgespecies (2620)

7.9.5.1.188 element_desc

Description of atomic elements used in wall element layer compositions

member	type	description
label	string (7.9.5.1.4)	Element name/label
zn	integer (7.9.5.1.3)	Nuclear charge
amn	float (7.9.5.1.2)	Nuclear mass
density	float (7.9.5.1.2)	Material density (atoms/m^3)

Type of: surface:elements (2918)

7.9.5.1.189 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.5.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.5.1.4)	Name of the device
shot	integer (7.9.5.1.3)	Shot number
run	integer (7.9.5.1.3)	Run number

Type of: mdinfo:md_entry (2772)

7.9.5.1.190 enum_instance

Specifies a specific enumerated instance of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

member	type	description
type	identifier (7.9.5.1.231)	Identify the type of the object or process.
name	string (7.9.5.1.4)	The name of the object or process. Here the object should be an instans of the type specified in the field type.
index	integer (7.9.5.1.3)	Index the separating objects or processes with the same name.

Type of: coherentwave:wave_id (2600) I distri_vec:source_id (2683) I distri_vec:wave_id (2683) I distsource_source:source_id (2688)

7.9.5.1.191 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.5.1.194)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.5.1.193)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.5.1.193)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.5.1.194)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.5.1.194)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.5.1.193)	Plasma current [A];
isoflux	isoflux (7.9.5.1.237)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.5.1.194)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.5.1.254)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.5.1.194)	MSE angles [rad]
ne	eqmes1D (7.9.5.1.194)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.5.1.194)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.5.1.194)	Total pressure [Pa]
q	q (7.9.5.1.308)	Safety factor
xpts	xpts (7.9.5.1.456)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (2550)

7.9.5.1.192 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.5.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.5.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary(:)	rz1Dexp (7.9.5.1.344)	RZ description of the plasma boundary; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, boundary must be allocated to size 1. Time-dependent;

member	type	description
geom_axis	rz0D (7.9.5.1.341)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.5.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.5.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
elong_upper	float (7.9.5.1.2)	Elongation upper of the plasma boundary; Time-dependent; Scalar
elong_lower	float (7.9.5.1.2)	Elongation lower of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.5.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.5.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts(:)	rz1Dexp (7.9.5.1.344)	Position of the Xpoints, first is the active xpoint if diverted [m]; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, xpts must be allocated to size 1. Time-dependent;
left_low_st	rz0D (7.9.5.1.341)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.5.1.341)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.5.1.341)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.5.1.341)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.5.1.341)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar
ang_lcms_upo	float (7.9.5.1.2)	Angle at the LMCS X point upper outer; Time-dependent; Scalar
ang_lcms_upi	float (7.9.5.1.2)	Angle at the LMCS X point upper inner; Time-dependent; Scalar
ang_lcms_lwo	float (7.9.5.1.2)	Angle at the LMCS X point lower outer; Time-dependent; Scalar
ang_lcms_lwi	float (7.9.5.1.2)	Angle at the LMCS X point lower inner; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (2550) I scenario:eqgeometry (2572)

7.9.5.1.193 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.5.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.5.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.5.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.5.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.5.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.5.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.5.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.5.1.2)	chi^2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (2706) I eqconstraint:diamagflux (2706) I eqconstraint:i_plasma (2706)

7.9.5.1.194 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.5.1.14)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.5.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.5.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.5.1.15)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.5.1.14)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.5.1.14)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.5.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.5.1.14)	chi^2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (2706) I eqconstraint:faraday (2706) I eqconstraint:flux (2706) I eqconstraint:jsurf (2706) I eqconstraint:mse (2706) I eqconstraint:ne (2706) I eqconstraint:pfcurrent (2706) I eqconstraint:pressure

(2706) I magnet_iron:mr (2769) I magnet_iron:mz (2769)

7.9.5.1.195 equilibrium_profiles2d_grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.5.1.14)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.5.1.14)	Second dimension values; Time-dependent; Vector (ndim2)
connect	matint_type (7.9.5.1.13)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: equilibrium_profiles_2d:grid (2711)

7.9.5.1.196 equilibrium_profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	vecstring_type (7.9.5.1.16)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	equilibrium_profiles2d_grid (7.9.5.1.195)	definition of the 2D grid
r	matflt_type (7.9.5.1.12)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.5.1.12)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.5.1.12)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.5.1.12)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
phi	matflt_type (7.9.5.1.12)	Toroidal flux [Wb]. Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.5.1.12)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.5.1.12)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.5.1.12)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.5.1.12)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.5.1.12)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.5.1.12)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.5.1.12)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.5.1.12)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.5.1.12)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.5.1.12)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (2550)

7.9.5.1.197 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.5.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.5.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.5.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (2582) I antenna_ic:frequency (2583) I antenna_ic:power (2583) I antenna_lh:power (2584) I distsource_global_param:src_pow (2684) I distsource_global_param:src_rate (2684) I fusiondiag_ct_chords:energy (2730) I fusiondiag_spec1d:energy (2736) I fusiondiag_spec2d:energy (2737) I magdiag:diamagflux (2559) I magdiag:ip (2559) I nbi_unit:inj_eng_unit (2787) I nbi_unit:pow_unit (2787) I straps:phase (2917) I toroidfield:bvac_r (2575) I toroidfield:current (2575)

7.9.5.1.198 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.5.1.14)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.5.1.14)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bpol_probes:measure (2596) I coil:coilcurrent (2601) I coil:coilvoltage (2601) I cxmeasure:ti (2650) I cxmeasure:vpol (2650) I cxmeasure:vtor (2650) I distsource_profiles_1d:pow_den (2686) I distsource_profiles_1d:src_rate (2686) I ecemeasure:te (2691) I flux_loops:measure (2718) I fusiondiag_ct_chords:measure (2730) I fusiondiag_ct_energy:energ (2731) I fusiondiag_ct_energy:measure (2731) I fusiondiag_detect_ct_energy:energy (2732) I fusiondiag_detect_ct_energy:meas (2732) I fusiondiag_emissivity1d:r (2733) I fusiondiag_emissivity1d:z (2733) I fusiondiag_spec1d:measure (2736) I halpha_setup:solidangle (2744) I halphadiag:intensity (2552) I lang_derived:measure (2754) I lang_measure:area (2755) I lang_measure:measure (2755) I lineintegraldiag:measure (2764) I lithmeasure:ne (2765) I magnetise:mr (2770) I magnetise:mz (2770) I modules:amplitude (2778) I modules:phase (2778) I msediag_radia_chord:totradiance (2782) I msediag_radiance:wavelength (2783) I nbi_unit:beamcurrfrac (2787) I nbi_unit:beampowrfrac (2787) I pfcoils:coilcurrent (2805) I pfcoils:coilvoltage (2805) I pfsupplies:current (2810) I pfsupplies:voltage (2810) I polarimetry:measure (2816) I rfameasure:ti (2853) I rzphi1Dexp:phi (2864) I rzphi1Dexp:r (2864) I rzphi1Dexp:z (2864) I tsmeasure:ne (2934) I tsmeasure:te (2934)

7.9.5.1.199 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.5.1.12)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.5.1.12)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.5.1.12)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (2687) I distsource_profiles_2d:src_rate (2687) I fusiondiag_emissivity2d:r (2734) I fusiondiag_emissivity2d:z (2734) I fusiondiag_spec2d:measure (2737)

7.9.5.1.200 f_expansion

Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

member	type	description
grid	complexgrid (7.9.5.1.88)	Grid for storing the distribution function. Time-dependent; Complexgrid
values	complexgrid_scalar (7.9.5.1.93)	Values of the distribution function [m^-3 (m/s)^-3]. Time-dependent; Complexgrid_scalar.

Type of: dist_func:f_expansion (2662)

7.9.5.1.201 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.5.1.12)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.5.1.12)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (2659)

7.9.5.1.202 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
position	rz1D (7.9.5.1.342)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.5.1.12)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: equilibrium:flush (2550)

7.9.5.1.203 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.5.1.377)	diagnostic setup information
measure	exp1D (7.9.5.1.198)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (2559)

7.9.5.1.204 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.5.1.14)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.5.1.14)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (2626)

7.9.5.1.205 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.5.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Array2D (nrho,nzimp)
flux_interp	matflt_type (7.9.5.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array2D (nrho,nzimp)

Type of: impurity_type:flux (2749)

7.9.5.1.206 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.5.1.12)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.5.1.12)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (2627)

7.9.5.1.207 fullwave

Solution by full wave code

member	type	description
grid	complexgrid (7.9.5.1.88)	Grid for storing the components of the wave field; Time-dependent
e_components	e_components (7.9.5.1.175)	E-field representation in terms of the parallel and circularly polarised components
pol_decomp	pol_decomp (7.9.5.1.300)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]
local	local (7.9.5.1.252)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

Type of: coherentwave:fullwave (2600)

7.9.5.1.208 fusiondiag_colli_3d

Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.5.1.4)	Name tag for the chord. String.
voxels(:)	fusiondiag_voxels (7.9.5.1.223)	Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

Type of: fusiondiag_collimator:colli_3d (2726)

7.9.5.1.209 fusiondiag_colli_circ

Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.5.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.5.1.379)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_circ (7.9.5.1.212)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_circ (2726)

7.9.5.1.210 fusiondiag_colli_poly

Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.5.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.5.1.379)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_poly (7.9.5.1.213)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_poly (2726)

7.9.5.1.211 fusiondiag_collimator

Collimator array.

member	type	description
colli_circ(:)	fusiondiag_colli_circ (7.9.5.1.209)	Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.
colli_poly(:)	fusiondiag_colli_poly (7.9.5.1.210)	Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.
colli_3d(:)	fusiondiag_colli_3d (7.9.5.1.208)	Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

Type of: fusiondiag_fus_product:collimator (2735)

7.9.5.1.212 fusiondiag_colliunit_circ

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
radius	vecflt_type (7.9.5.1.14)	Radius of cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim)
centre	rzphi1D (7.9.5.1.348)	Position of cross section centre; Typically dim=2 for just entry and exit of collimator; Vector (dim)

Type of: fusiondiag_colli_circ:colliunit (2724)

7.9.5.1.213 fusiondiag_colliunit_poly

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
dimension	float (7.9.5.1.2)	Number of edges of cross section.
nodes	rzphi2D (7.9.5.1.350)	Coordinates of nodes defining each cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim,nnodes)

Type of: fusiondiag_colli_poly:colliunit (2725)

7.9.5.1.214 fusiondiag_counts

Integrated emissivity [s^-1].

member	type	description
units	string (7.9.5.1.4)	Energy units (ev, tof - time of flight)
ct_chords(:)	fusiondiag_ct_chords (7.9.5.1.215)	Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].
ct_energy(:)	fusiondiag_ct_energy (7.9.5.1.216)	Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].
detect_ct(:)	fusiondiag_detect_ct_energy (7.9.5.1.217)	Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

Type of: fusiondiag_fus_product:counts (2735)

7.9.5.1.215 fusiondiag_ct_chords

Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].

member	type	description
name	vecstring_type (7.9.5.1.16)	Name tag for each chord. Vector (nchords)
energy	exp0D (7.9.5.1.197)	Energy like variable span. Use mininum energy when no energy spectra is resolved.
measure	exp1D (7.9.5.1.198)	Measured counts. Vector (nchords)

Type of: fusiondiag_counts:ct_chords (2729)

7.9.5.1.216 fusiondiag_ct_energy

Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].

member	type	description
energy	exp1D (7.9.5.1.198)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.5.1.198)	Measured counts spectra. Vector (nenergy)

Type of: fusiondiag_counts:ct_energy (2729)

7.9.5.1.217 fusiondiag_detect_ct_energy

Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

member	type	description
energy	exp1D (7.9.5.1.198)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.5.1.198)	Measured counts spectra. Vector (nenergy)
diag_func	diag_func (7.9.5.1.145)	Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

Type of: fusiondiag_counts:detect_ct (2729)

7.9.5.1.218 fusiondiag_emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.5.1.4)	Energy units (ev, tof - time of flight)
r	exp1D (7.9.5.1.198)	horizontal grid. Vector (dim)
z	exp1D (7.9.5.1.198)	vertical grid. Vector (dim)
spec1d(:)	fusiondiag_spec1d (7.9.5.1.221)	Emissivity in given energy like variable range [counts.m^-3.s-1].

Type of: fusiondiag_fus_product:emissivity1d (2735)

7.9.5.1.219 fusiondiag_emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.5.1.4)	Energy units (ev, tof - time of flight)
r	exp2D (7.9.5.1.199)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.5.1.199)	vertical grid. Vector (dim1,dim2)
spec2d(:)	fusiondiag_spec2d (7.9.5.1.222)	Emissivity in given energy like variable range [counts.m^-3.s-1].

Type of: fusiondiag_fus_product:emissivity2d (2735)

7.9.5.1.220 fusiondiag_fus_product

Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.

member	type	description
product	string (7.9.5.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.5.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
collimator	fusiondiag_collimator (7.9.5.1.211)	Collimator array.
counts	fusiondiag_counts (7.9.5.1.214)	Integrated emissivity [s^-1].
emissivity1d	fusiondiag_emissivity1d (7.9.5.1.218)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	fusiondiag_emissivity2d (7.9.5.1.219)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: fusiondiag:fus_product (2551)

7.9.5.1.221 fusiondiag_spec1d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.5.1.197)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp1D (7.9.5.1.198)	reconstruction. Vector (dim)

Type of: fusiondiag_emissivity1d:spec1d (2733)

7.9.5.1.222 fusiondiag_spec2d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.5.1.197)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp2D (7.9.5.1.199)	reconstruction. Vector (dim1,dim2)

Type of: fusiondiag_emissivity2d:spec2d (2734)

7.9.5.1.223 fusiondiag_voxels

Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

member	type	description
centre	rzphi0D (7.9.5.1.347)	Centre of voxel; used also as origin of direction to detector
direction	rzphi0D (7.9.5.1.347)	Second point defining the direction to detector.
volume	float (7.9.5.1.2)	Voxel Volume
solid_angle	float (7.9.5.1.2)	effective solid angle (divided by 4pi) of the voxel towards detector.

Type of: fusiondiag_colli_3d:voxels (2723)

7.9.5.1.224 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.5.1.15)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.5.1.345)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (2657)

7.9.5.1.225 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.5.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.5.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.5.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.5.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.5.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.5.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.5.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.5.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.5.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.5.1.253)	Magnetic axis values
q_95	float (7.9.5.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar

member	type	description
q_min	float (7.9.5.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.5.1.73)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.5.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.5.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (2550)

7.9.5.1.226 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.5.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.5.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.5.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.5.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.5.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.5.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.5.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.5.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.5.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (2541)

7.9.5.1.227 grid_info

Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.

member	type	description
grid_type	integer (7.9.5.1.3)	Type of grid in continuous dimensions: 1=unstructured grid, 2=structured non-rectangular grid, 3=rectangular. For rectangular grids, and/or dimensions with discrete source, the grid coordinates dim1,dim2,... is stored in vectors dim1(1:ndim1,1,1,1), dim1(1,1:ndim2,1,1),...
ngriddim	integer (7.9.5.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, and dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(3)=6.
grid_coord	vecint_type (7.9.5.1.15)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describe the coordinate represented in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
discrete_dims	vecint_type (7.9.5.1.15)	Specifies discrete or continuous grid in each dimension separately. For discrete_dims(K)=1, K=1,2...6: the source is discretely distributed at the grid points of the dimK-grid (e.g. to treat the discrete energies injected with NBI); for discrete_dims(K)=0: continuous source, i.e. the source is distributed over the continuous variable dimK (e.g. the source density is a continuous function of the major radius). Vector (6)

Type of: source_on_grid:grid_info (2902)

7.9.5.1.228 h_inventory

Data on wall element hydrogen inventories

member	type	description
surf_trap_de	array5dflt_type (7.9.5.1.9)	Density of hydrogen traps on internal surfaces [1/m^2]; Time-dependent; 5d float array; Dimensions: 1. compound type (indexing as in chemical_comp), 2. trap type, 3. cell index of 1d layer height discretization; 4. layer index; 5. wall element index
bulk_trap_de	array5dflt_type (7.9.5.1.9)	Density of hydrogen traps in bulk material [1/m^3]; Time-dependent; 5d float array; Dimensions: see surface_trap_density
bulk_D	array5dflt_type (7.9.5.1.9)	Diffusivity of hydrogen species in bulks of different compounds; Time-dependent; 5d float array. Dimensions: 1. index of compound (indexing as in chemical_comp), 2. index of hydrogen isotope, 3. cell index of 1d layer height discretization, 4. layer index, 5. wall element index
surface_D	array5dflt_type (7.9.5.1.9)	Diffusivity of hydrogen species of surface of different compounds; Time-dependent; Dimensions: see bulk_D
bulk_C_s	array5dflt_type (7.9.5.1.9)	Bulk mobile (solute) concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surface_C_s	array5dflt_type (7.9.5.1.9)	Surface mobile (solute) concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
bulk_C_t	array5dflt_type (7.9.5.1.9)	Bulk trapped concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surface_C_t	array5dflt_type (7.9.5.1.9)	Surface trapped concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
surf_recrate	array5dflt_type (7.9.5.1.9)	Recombination rate on surface (only for pure elements, not compounds) [molecules*m^2/s]; Time-dependent; Dimensions: see bulk_D

Type of: surface:h_inventory (2918)

7.9.5.1.229 halpha_setup

setup for the lines of sight of the line integrated measurement

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of the channel. Array of strings (nlos).
pivot_point	rzphi1D (7.9.5.1.348)	Pivot point of l.o.s. it can be either the collimator position or entry point on the vessel. Vector (nlos)
horchordang	vecflt_type (7.9.5.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Vector (nlos)
verchordang	vecflt_type (7.9.5.1.14)	Angle of l.o.s. with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Vector (npos)
second_point	rzphi1D (7.9.5.1.348)	Second point defining the l.o.s. together with the pivot_point. Vector (nlos)
solidangle	exp1D (7.9.5.1.198)	Solid angle of the detector; [sr] Vector (nlos)

Type of: halphadiag:setup (2552)

7.9.5.1.230 holes

Structure to describe the placing and properties of the holes

member	type	description
n_holes	integer (7.9.5.1.3)	Number of holes on each wall;
coordinates	coordinates (7.9.5.1.108)	Poloidal and Toroidal coordinates of the center of each hole;
width	width (7.9.5.1.455)	Angular width of each in the poloidal and toroidal direction;
eta	vecflt_type (7.9.5.1.14)	Resistivity of each hole [ohm.m]; Vector (n_holes)

Type of: mhd_res_wall2d:holes (2775)

7.9.5.1.231 identifier

Standard type for identifiers. The three fields: id, flag and description are all representations of the same information. Associated with each application of this identifier-type, there should be a translation table defining the three fields for all objects to be identified.

member	type	description
id	string (7.9.5.1.4)	Short string identifier
flag	integer (7.9.5.1.3)	Integer identifier
description	string (7.9.5.1.4)	Verbose description of identifier

Type of: composition_neutralscomp:type (2619) I compositions_type:signature (2620) I coredelta_values:deltaid (2625) I coreneutrals_atomlist:ionimptype (2640) I coresource_values:sourceid (2644) I coretransp_values:transportid (2648) I enum_instance:type (2705) I mhd_ideal_wall2d:walltype (2773) I mhd_res_wall2d:walltype (2775) I msediag_polarization:type (2781) I msediag_stokes:type (2786) I reflectometry_antennas:type (2848) I reflectometry_radfield:type (2849) I simp_apert:type (2898) I wall2d:wall_id (2949) I wall2d_mhd:wall_id (2950) I wall3d:wall_id (2951) I weighted_markers:variable_ids (2968)

7.9.5.1.232 impcoeff

Array over charge states for this particular impurity.

member	type	description
chargestate(:)	coefficients_neutrals (7.9.5.1.84)	NO DOCS

Type of: coreneutrals:impcoeff (2540)

7.9.5.1.233 impurities

Array of impurities.

member	type	description
nucindex	integer (7.9.5.1.3)	Index into list of nuclei; int
i_ion	integer (7.9.5.1.3)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	integer (7.9.5.1.3)	Number of charge states (or bundles) considered for this impurity species.
zmin	vecflt_type (7.9.5.1.14)	Minimum Z of impurity ionisation state bundle. Vector (nzimp)
zmax	vecflt_type (7.9.5.1.14)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Vector (nzimp)
label	vecstring_type (7.9.5.1.16)	String array (nzimp) identifying impurities (e.g. C+, C+2 , C+3, C+4, C+5, C+6, ...)

Type of: compositions_type:impurities (2620)

7.9.5.1.234 impurity_type

Array(nimp). Time-dependent

member	type	description
z	matflt_type (7.9.5.1.12)	Impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
zsq	matflt_type (7.9.5.1.12)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
nz	matflt_type (7.9.5.1.12)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
source_term	sourceimp (7.9.5.1.391)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.5.1.79)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.5.1.131)	Transport coefficients for each charge state
flux	fluximp (7.9.5.1.205)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	matflt_type (7.9.5.1.12)	Integral of the time derivative term of the transport equation. Time-dependent. Array2D (nrho,nzimp)
diagnostic	coreimpurediag_type (7.9.5.1.122)	NO DOCS

Type of: coreimpur:impurity (2539)

7.9.5.1.235 inj_spec

Injected species

member	type	description
amn	float (7.9.5.1.2)	Atomic mass number
zn	float (7.9.5.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (2787)

7.9.5.1.236 ions

Array of main plasma ions.

member	type	description
nucindex	integer (7.9.5.1.3)	Index into list of nuclei; int
zion	float (7.9.5.1.2)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	integer (7.9.5.1.3)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	string (7.9.5.1.4)	String identifying ion (e.g. H+, D+, T+, He+2, C+, ...)

Type of: compositions_type:ions (2620)

7.9.5.1.237 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.5.1.342)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.5.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.5.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.5.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.5.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.5.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (2706)

7.9.5.1.238 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.5.1.14)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (2821)

7.9.5.1.239 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.5.1.16)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.5.1.349)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.5.1.198)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (2555) I langmuirdiag:ne (2555) I langmuirdiag:te (2555)

7.9.5.1.240 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.5.1.16)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.5.1.198)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.5.1.349)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.5.1.198)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (2555) I langmuirdiag:jsat (2555) I langmuirdiag:potential (2555)

7.9.5.1.241 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.5.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline [rad], Tan(alpha)=-k_z/k_R; Time-dependent
beta	float (7.9.5.1.2)	Toroidal launching angle between the poloidal plane and the nominal beam centerline [rad], Sin(beta)=k_phi; Time-dependent

Type of: antenna_ec:launchangles (2582)

7.9.5.1.242 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.5.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.5.1.12)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.5.1.14)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (2911)

7.9.5.1.243 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.5.1.15)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.5.1.15)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.5.1.12)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.5.1.12)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.5.1.6)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (2911)

7.9.5.1.244 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.5.1.246)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.5.1.245)	Phase ellipse characteristics of the spot

Type of: launchs:beam (2556)

7.9.5.1.245 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.5.1.12)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.5.1.14)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (2759)

7.9.5.1.246 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.5.1.12)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.5.1.14)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (2759)

7.9.5.1.247 layers

Data on wall element layers

member	type	description
density	matflt_type (7.9.5.1.12)	Density of the surface layers [kg/m^3]; Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
thickness	matflt_type (7.9.5.1.12)	Thickness of surface layer [m]; Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
roughness	matflt_type (7.9.5.1.12)	Surface roughness [m] (surface between this layer and the one above it towards the plasma); Time-dependent; Float matrix (max. number of layers, number of elements); First dimension: index of surface layer, second element: index of wall element
t	array3dflt_type (7.9.5.1.6)	Temperature in layer [K]; Time-dependent; 3d float array, dimensions: 1. cell index of 1d layer height discretization, 2. layer index, 3. wall element index
element_frac	array3dflt_type (7.9.5.1.6)	Elemental composition; Time-dependent; Float 3d array (max. number of tracked elements, max. number of layers, number of wall elements); Dimensions: 1. index of tracked element (c.f. surface.elements list), 2. layer index, 3. wall element index
chem_comp	array3dflt_type (7.9.5.1.6)	Chemical composition, referring to the list surface.compounds; Time-dependent; 3d float array, dimensions: 1. index of tracked compound, 2. index of layer, 3. index of wall element

Type of: surface:layers (2918)

7.9.5.1.248 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.5.1.4)	Name or description of the limiter_unit
closed	string (7.9.5.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.5.1.342)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.5.1.2)	Wall resistivity [ohm.m]; Scalar
delta	float (7.9.5.1.2)	Wall thickness [m] (Optional if a closed facing component is given but useful for simpler closed contour limiter); Time-dependent; Scalar
permeability	float (7.9.5.1.2)	Vessel relative permeability; Scalar

Type of: limiter:limiter_unit (2557) I wall_limiter:limiter_unit (2954)

7.9.5.1.249 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.5.1.138)	Generic information on a data item
expression	string (7.9.5.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.5.1.379)	Geometric description of the lines of sight
measure	exp1D (7.9.5.1.198)	Measured value. Time-dependent; Vector (nchords)
time	float (7.9.5.1.2)	Time [s]; Time-dependent; Scalar

7.9.5.1.250 lithmeasure

Measured values

member	type	description
ne	exp1D (7.9.5.1.198)	Electron density [m^-3]. Vector (nchannels)

Type of: lithiumdiag:measure (2558)

7.9.5.1.251 lithsetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.5.1.348)	Position of the measurement. Vector (nchannels)

Type of: lithiumdiag:setup (2558)

7.9.5.1.252 local

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

member	type	description
e_plus	array3dflt_type (7.9.5.1.6)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.5.1.6)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.5.1.6)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.5.1.6)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.5.1.7)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.5.1.6)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.5.1.6)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.5.1.6)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.5.1.6)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.5.1.6)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.5.1.6)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.5.1.6)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.5.1.6)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.5.1.6)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.5.1.6)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.5.1.6)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (2722)

7.9.5.1.253 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.5.1.341)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.5.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.5.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (2740)

7.9.5.1.254 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.5.1.194)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.5.1.194)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (2706)

7.9.5.1.255 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.5.1.198)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.5.1.198)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (2554)

7.9.5.1.256 matcplx_type

Temporary structure for real and imaginary part of complex numbers (matrix)

member	type	description
re	matflt_type (7.9.5.1.12)	Real part
im	matflt_type (7.9.5.1.12)	Imaginary part

Type of: complexgrid_scalar_cplx:vector (2609) I reflectometry_radifield_efield:e1 (2851) I reflectometry_radifield_efield:e2 (2851)

7.9.5.1.257 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.5.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.5.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.5.1.189)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.5.1.258 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	identifier (7.9.5.1.231)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
position	rz1D (7.9.5.1.342)	RZ description of the wall;

Type of: wall2d_mhd:ideal_wall (2950)

7.9.5.1.259 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.5.1.14)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)

member	type	description
m	array3dflt_type (7.9.5.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
disp_perp	array3dcplx_type (7.9.5.1.72)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
disp_par	array3dcplx_type (7.9.5.1.72)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 3D (npsi,nn,nm)
tau_alfven	vecflt_type (7.9.5.1.14)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_resistive	vecflt_type (7.9.5.1.14)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.5.1.107)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.5.1.262)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.5.1.262)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.5.1.262)	Perturbed velocity (in Fourier space) [m/s]
p_pert	array3dcplx_type (7.9.5.1.72)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 3D (npsi,nn,nm)
rho_mass_pert	array3dcplx_type (7.9.5.1.72)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 3D (npsi,nn,nm)
temp_pert	array3dcplx_type (7.9.5.1.72)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd:plasma (2560)

7.9.5.1.260 mhd_res_wall2d

Resistive wall

member	type	description
walltype	identifier (7.9.5.1.231)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
delta	float (7.9.5.1.2)	Wall thickness [m]; Scalar
eta	float (7.9.5.1.2)	Wall resistivity [ohm.m]; Scalar
npoloidal	integer (7.9.5.1.3)	Number of poloidal coordinates for each wall (dimension of R and Z);
position	rz1D (7.9.5.1.342)	RZ description of the wall; wall coordinates are defined at a middle line (line passing through the middle of the real wall as defined by thickness parameter delta)
holes	holes (7.9.5.1.230)	Structure to describe the placing and properties of the holes

Type of: wall2d_mhd:res_wall (2950)

7.9.5.1.261 mhd_vacuum

External modes

member	type	description
m	array3dflt_type (7.9.5.1.6)	Poloidal mode number; Time-dependent; Array3D (npsi,nn,nm)
coord_sys	coord_sys (7.9.5.1.107)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.5.1.262)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.5.1.262)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd:vacuum (2560)

7.9.5.1.262 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	array3dcplx_type (7.9.5.1.72)	Fourier components of first coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord2	array3dcplx_type (7.9.5.1.72)	Fourier components of second coordinate; Time-dependent; Array 3D (npsi,nn,nm)
coord3	array3dcplx_type (7.9.5.1.72)	Fourier components of third coordinate; Time-dependent; Array 3D (npsi,nn,nm)

Type of: mhd_plasma:a_pert (2774) I mhd_plasma:b_pert (2774) I mhd_plasma:v_pert (2774) I mhd_vacuum:a_pert (2776) I mhd_vacuum:b_pert (2776)

7.9.5.1.263 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.5.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.5.1.3)	Number of modules per antenna in the toroidal direction.
ima_theta	vecint_type (7.9.5.1.15)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.5.1.15)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.5.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.5.1.198)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.5.1.198)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.5.1.445)	Waveguides description

Type of: antennalh_setup:modules (2586)

7.9.5.1.264 msediag_emiss_chord

MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

member	type	description
volume	float (7.9.5.1.2)	Emitting volume (m^-3). Scalar
setup	rzphi1D (7.9.5.1.348)	Description of the line of sight (for the moment a line - not a cone of sight). Vector (npos).
polarization(:)	msediag_polarization (7.9.5.1.266)	Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.
quantiaxis	vecflt_type (7.9.5.1.14)	Quantization axis for the line of sight (eR,ePhi,eZ). It is a unitary vector associated to the line of sight and to the emissivity, e.g. the Lorentzian electric field direction); Vector (3). Time-dependent

Type of: msediag_emissivity:emiss_chord (2780)

7.9.5.1.265 msediag_emissivity

Emissivity characteristics.

member	type	description
wavelength	vecflt_type (7.9.5.1.14)	Wavelength [m]. Vector (nwavelength)
emiss_chord(:)	msediag_emiss_chord (7.9.5.1.264)	MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

Type of: spectral:emissivity (2910)

7.9.5.1.266 msediag_polarization

Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.5.1.231)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
spec_emiss	matflt_type (7.9.5.1.12)	Spectral emissivity of a particular polarization (Wm^-3sr-^1). Matrix (npos,nwavelength). Time-dependent

Type of: msediag_emiss_chord:polarization (2779)

7.9.5.1.267 msediag_radia_chord

MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

member	type	description
setup	msediag_setup (7.9.5.1.269)	Geometry for the observation line of sight
stokes(:)	msediag_stokes (7.9.5.1.271)	Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.
totradiance	exp1D (7.9.5.1.198)	Total Radiance integrated along the lines of sight (Wm^-2sr-^1). Vector (nwavelength)

Type of: msediag_radiance:radia_chord (2783)

7.9.5.1.268 msediag_radiance

Emissivity characteristics.

member	type	description
wavelength	exp1D (7.9.5.1.198)	Wavelength [m]. Vector (nwavelength)
radia_chord(:)	msediag_radia_chord (7.9.5.1.267)	MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

Type of: spectral:radiance (2910)

7.9.5.1.269 msediag_setup

Geometry for the observation line of sight

member	type	description
pivot_point	rzphi0D (7.9.5.1.347)	Pivot point of mse line of sight. Scalar
horchordang	float (7.9.5.1.2)	Angle [rad] of horizontal projection of mse line of sight with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.5.1.2)	Angle of mse line of sight with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.5.1.347)	Second point defining the mse line of sight together with the pivot_point. Scalar

Type of: msediag_radia_chord:setup (2782)

7.9.5.1.270 msediag_setup_polarimetry

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.5.1.352)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.5.1.12)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: polarimetry:setup (2816)

7.9.5.1.271 msediag_stokes

Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.5.1.231)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
vector	matflt_type (7.9.5.1.12)	Stokes vector (I,U,S,V) as a function of the wavelength. Vector (4,nwavelength).

Type of: msediag_radia_chord:stokes (2782)

7.9.5.1.272 nbi_unit

Vector of Neutral Beam Injector units. Structure array(nunits). Time-dependent

member	type	description
name	string (7.9.5.1.4)	Name of the neutral beam injector
inj_spec	inj_spec (7.9.5.1.235)	Injected species
pow_unit	exp0D (7.9.5.1.197)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.5.1.197)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.5.1.198)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.5.1.198)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
setup_inject	setup_inject (7.9.5.1.378)	Detailed information on an injection unit.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: nbi:nbi_unit (2562)

7.9.5.1.273 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.5.1.12)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.5.1.12)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.5.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.5.1.278)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ne_transp (2648)

7.9.5.1.274 neutral_complex_type

Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent

member	type	description
neutraltype(:)	coreneutrals_neutraltype (7.9.5.1.126)	Array (ntype) over neutral types. Time-dependent.
prad0	vecflt_type (7.9.5.1.14)	Power radiated by neutrals [W.m^-3]. Vector (nrho). Time-dependent.

Type of: coreneutrals:profiles (2540)

7.9.5.1.275 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.5.1.6)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)

member	type	description
vconv_eff	array3dflt_type (7.9.5.1.6)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.5.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.5.1.279)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ni_transp (2648)

7.9.5.1.276 nuclei

Array of nuclei considered.

member	type	description
zn	float (7.9.5.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.5.1.2)	Mass of atom [amu]
label	string (7.9.5.1.4)	String identifying element (e.g. H, D, T, He, C, ...)

Type of: compositions_type:nuclei (2620)

7.9.5.1.277 objects

Definition of space objects (nodes, edges, faces, cells, ...).; A space object of dimension n is defined; by enumerating the (n-1)-dimensional space objects defining its boundaries

member	type	description
boundary	matint_type (7.9.5.1.13)	Lists of (n-1)-dimensional space objects defining the boundary of an n-dimensional space object.; Matrix(number of objects of dimension n, maximum number of boundary objects).; First dimension: object index, second dimension: boundary object index
neighbour	array3dint_type (7.9.5.1.7)	Connectivity information. Array (number of objects, maximum number of boundaries per object, maximum number of neighbours per boundary).; Stores the indices of the n-dimensional objects adjacent to the given n-dimensional object.;An object can possibly have multiple neighbours on every boundary.; First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array4dflt_type (7.9.5.1.8)	Geometry data matrix associated with every object. Float array (number of objects, number of geometry coeff. 1, number of geometry coeff. 2, number of geometries).; The exact definition depends on the geometry type of the space (complexgrid_space.geotype).; First dimension: object index, second+third dimension: geometry coefficient matrix row+column, third dimension: geometry index (for definition of multiple geometries).
measure	matflt_type (7.9.5.1.12)	Measure of space objects, i.e. physical size (length for 1d, area for 2d, volume for 3d objects,...). [m^dim].; First dimension: object index, second dimension: geometry index

Type of: complexgrid_space:objects (2612)

7.9.5.1.278 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.5.1.14)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.5.1.14)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.5.1.14)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.5.1.14)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (2788) I transcoefel:off_diagonal (2930)

7.9.5.1.279 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.5.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.5.1.6)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.5.1.12)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (2790) I transcoefion:off_diagonal (2932) I transcoefvtor:off_diagonal (2933)

7.9.5.1.280 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.5.1.342)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.5.1.14)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (2665)

7.9.5.1.281 orbit_global_param

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.5.1.15)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.5.1.14)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.5.1.14)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.5.1.14)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	orbit_special_pos (7.9.5.1.284)	Special positions along an orbit (like turning points).

Type of: orbit:global_param (2564)

7.9.5.1.282 orbit_midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.5.1.283)	Position at outer mid-plane
inner	orbit_pos (7.9.5.1.283)	Position at inner mid-plane

Type of: orbit_special_pos:midplane (2799)

7.9.5.1.283 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.5.1.14)	Altitude [m]; Time-dependent; Vector (norbits).
phi	vecflt_type (7.9.5.1.14)	Toroidal angle [rad]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.5.1.14)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.5.1.14)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: orbit_midplane:inner (2797) I orbit_midplane:outer (2797) I orbit_turning_pts:lower (2800) I orbit_turning_pts:upper (2800)

7.9.5.1.284 orbit_special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	orbit_midplane (7.9.5.1.282)	Intersections with the midplane
turning_pts	orbit_turning_pts (7.9.5.1.285)	Location of turning points

Type of: orbit_global_param:special_pos (2796)

7.9.5.1.285 orbit_turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.5.1.283)	Position at upper turning point
lower	orbit_pos (7.9.5.1.283)	Position at lower turning point

Type of: orbit_special_pos:turning_pts (2799)

7.9.5.1.286 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.5.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.5.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.5.1.4)	Code parameters schema.

Type of

7.9.5.1.287 pelletpath

Description of the flight path of the pellet (assumed a straight line)

member	type	description
pivot_point	rzphi0D (7.9.5.1.347)	Pivot point of pellet path line. Scalar
horchordang	float (7.9.5.1.2)	Angle [rad] of horizontal projection of pellet path line with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.5.1.2)	Angle of pellet path with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.5.1.347)	Second point defining the pellet path line together with the pivot_point. Scalar

Type of: pellets:pelletpath (2565)

7.9.5.1.288 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.5.1.12)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.5.1.12)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (2657)

7.9.5.1.289 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.5.1.16)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.5.1.16)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.5.1.15)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.5.1.7)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (2566)

7.9.5.1.290 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.5.1.143)	Description of the coils
coilcurrent	exp1D (7.9.5.1.198)	Circuit feed current in the coil , defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.5.1.198)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)

Type of: pfsystems:pfcoils (2566)

7.9.5.1.291 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.5.1.16)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.5.1.12)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.5.1.12)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.5.1.292)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (2658)

7.9.5.1.292 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.5.1.13)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)

member	type	description
npoints	matint_type (7.9.5.1.13)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.5.1.346)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.5.1.6)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (2806)

7.9.5.1.293 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.5.1.15)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.5.1.15)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.5.1.345)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.5.1.12)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (2809)

7.9.5.1.294 pfpassive

Passive axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of coil. Array of strings (nelements)
area	vecflt_type (7.9.5.1.14)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.5.1.14)	Passive element resistance [Ohm]; Vector (nelements)
eta	vecflt_type (7.9.5.1.14)	Passive element resistivity [Ohm.m]; Vector (nelements)
pfpageometry	pfpageometry (7.9.5.1.293)	Geometry of the passive elements

Type of: pfsystems:pfpassive (2566)

7.9.5.1.295 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.5.1.144)	Description of the power supplies
voltage	exp1D (7.9.5.1.198)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.5.1.198)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (2566)

7.9.5.1.296 phaseellipse

Phase ellipse characteristics

member	type	description
invcurvrad	vecflt_type (7.9.5.1.14)	Inverse curvature radii for the phase ellipse [m-1], positive/negative for divergent/convergent beams, Vector (2). Time-dependent
angle	float (7.9.5.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (2855)

7.9.5.1.297 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.5.1.342)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.5.1.14)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].
radialhwidth	vecflt_type (7.9.5.1.14)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (2924)

7.9.5.1.298 plasma

Plasma flux from/to plasma facing wall surfaces

member	type	description
flux(:)	complexgrid_scalar (7.9.5.1.93)	Flux density of incoming particle flux [particles/(m^2 s)]; Time-dependent; Array of structures(number of plasma species); First dimension: index of plasma species (as given in species array)
b	complexgrid_vector_simplestruct (7.9.5.1.100)	Magnetic field vector at the surface [T]; Time-dependent;
energy(:)	complexgrid_scalar (7.9.5.1.93)	Average energy of incoming particles [eV]; Time-dependent; Array of structures (number of plasma species)
species(:)	species_desc (7.9.5.1.394)	Definition of plasma species (ions+neutrals); Array of structures (number of species)

Type of: wall:plasma (2579)

7.9.5.1.299 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.5.1.3)	Number of points in the distance grid. Integer
distance	vecflt_type (7.9.5.1.14)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.5.1.14)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (2584)

7.9.5.1.300 pol_decomp

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
mpol	vecint_type (7.9.5.1.15)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)

member	type	description
b_norm	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.5.1.6)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array3dflt_type (7.9.5.1.6)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.5.1.6)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.5.1.6)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (2722)

7.9.5.1.301 polarimetry

This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.

member	type	description
setup	msediag_setup_polarimetry (7.9.5.1.270)	diagnostic setup information
measure	exp1D (7.9.5.1.198)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)

Type of: msediag:polarimetry (2561)

7.9.5.1.302 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.5.1.14)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_p_im	vecflt_type (7.9.5.1.14)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.5.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.5.1.14)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.5.1.14)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.5.1.14)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (2590)

7.9.5.1.303 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.5.1.14)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent
phi_par	vecflt_type (7.9.5.1.14)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.5.1.14)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.5.1.12)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (2590)

7.9.5.1.304 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.5.1.127)	Electron pressure [Pa]; Time-dependent;
dpedt	coreprofile (7.9.5.1.127)	Time derivative of the electron pressure [Pa/s]; Time-dependent;
pi	coreprofion (7.9.5.1.128)	Ion pressure [Pa]; Time-dependent;
pi_tot	coreprofile (7.9.5.1.127)	Total ion pressure (sum of the species) [Pa]; Time-dependent;
dpi_totdt	coreprofile (7.9.5.1.127)	Time derivative of the total ion pressure [Pa/s]; Time-dependent;
pr_th	coreprofile (7.9.5.1.127)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.5.1.127)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.5.1.127)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.5.1.127)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.5.1.127)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jphi	coreprofile (7.9.5.1.127)	total toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent;
joh	coreprofile (7.9.5.1.127)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.5.1.127)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.5.1.127)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	sourceel (7.9.5.1.390)	ohmic heating [W/m^3]; Time-dependent;
qei	coreprofile (7.9.5.1.127)	Collisional heat transfer from electrons to ions (equipartition term) [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.5.1.127)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.5.1.127)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.5.1.127)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.5.1.127)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.5.1.128)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.5.1.128)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.5.1.128)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.5.1.127)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.5.1.127)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dvprimedt	coreprofile (7.9.5.1.127)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (2541)

7.9.5.1.305 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.5.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.5.1.14)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.5.1.14)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.5.1.14)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.5.1.14)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.5.1.14)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.5.1.14)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.5.1.14)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.5.1.14)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.5.1.14)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.5.1.14)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.5.1.14)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.5.1.14)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)

member	type	description
beta_pol	vecflt_type (7.9.5.1.14)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.5.1.14)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.5.1.14)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.5.1.14)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.5.1.14)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.5.1.14)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.5.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
dvdrho	vecflt_type (7.9.5.1.14)	Radial derivative of the volume enclosed in the flux surface with respect to rho_tor, i.e. dV/drho_tor [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.5.1.14)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.5.1.14)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.5.1.14)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.5.1.14)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.5.1.14)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.5.1.14)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.5.1.14)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.5.1.14)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.5.1.14)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.5.1.14)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.5.1.14)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.5.1.14)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.5.1.14)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.5.1.14)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.5.1.14)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.5.1.14)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.5.1.14)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.5.1.14)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.5.1.14)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.5.1.14)	Poloidal flow function phi_flow = rho*v_pol*B_pol[kg/(V.s^2)]; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.5.1.14)	Definition to be provided; Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.5.1.14)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)
rho_mass	vecflt_type (7.9.5.1.14)	Mass density [kg/m^3]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (2550)

7.9.5.1.306 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Signal value [Wb]; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.5.1.14)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.5.1.14)	Second order radial derivative (d2value/drho_tor2) [Wb.m^-2]; Time-dependent; Vector (nrho)
ddt_rhotorn	vecflt_type (7.9.5.1.14)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
ddt_phi	vecflt_type (7.9.5.1.14)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.5.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.5.1.76)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.5.1.238)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.5.1.127)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: coreprof:psi (2541)

7.9.5.1.307 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.5.1.4)	Storage method for this data
putaccess	string (7.9.5.1.4)	Instructions to access the data using this method
putlocation	string (7.9.5.1.4)	Name of this data under this method
rights	string (7.9.5.1.4)	Access rights to this data

Type of: datainfo:putinfo (2653)

7.9.5.1.308 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.5.1.14)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.5.1.342)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.5.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.5.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.5.1.14)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.5.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.5.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.5.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (2706)

7.9.5.1.309 recycling_neutrals

Recycling coefficients

member	type	description
particles	vecflt_type (7.9.5.1.14)	Particle recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut,). Time-dependent.
energy	vecflt_type (7.9.5.1.14)	Energy recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:recycling (2599)

7.9.5.1.310 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.5.1.2)	Data value; Real
source	string (7.9.5.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.5.1.2)	Time (exact time slice used from the time array of the source signal); Real

Type of: summary:a_minor (2573) I summary:area (2573) I summary:beta_normal (2573) I summary:beta_pol (2573) I summary:beta_tor (2573) I summary:bvac_r (2573) I summary:elongation (2573) I summary:geom_axis_r (2573) I summary:impur1_a (2573) I summary:impur1_z (2573) I summary:ip (2573) I summary:li (2573) I summary:main_ion1_a (2573) I summary:main_ion1_z (2573) I summary:main_ion2_a (2573) I summary:main_ion2_z (2573) I summary:nev (2573) I summary:tev (2573) I summary:tiv (2573) I summary:tria_lower (2573) I summary:tria_upper (2573) I summary:volume (2573) I summary:zeffv (2573)

7.9.5.1.311 ref_nt

set of non-timed references

member	type	description
zerod_real	ref_nt_0dr (7.9.5.1.314)	0d reference of real type
zerod_int	ref_nt_0di (7.9.5.1.312)	0d reference of integer type
zerod_string	ref_nt_0ds (7.9.5.1.316)	0d reference of string type
oned_real	ref_nt_1dr (7.9.5.1.320)	1d reference of real type
oned_int	ref_nt_1di (7.9.5.1.318)	1d reference of integer type

Type of: reference:non_timed (2568)

7.9.5.1.312 ref_nt_0di

set of non-timed references of integer type

member	type	description
ref1	ref_nt_0di_ref (7.9.5.1.313)	Reference signal #1
ref2	ref_nt_0di_ref (7.9.5.1.313)	Reference signal #2
ref3	ref_nt_0di_ref (7.9.5.1.313)	Reference signal #3
ref4	ref_nt_0di_ref (7.9.5.1.313)	Reference signal #4

Type of: ref_nt:zerod_int (2826)

7.9.5.1.313 ref_nt_0di_ref

a non-timed reference of integer type

member	type	description
value	integer (7.9.5.1.3)	Value of the reference. Integer scalar.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_nt_0di:ref1 (2827) I ref_nt_0di:ref2 (2827) I ref_nt_0di:ref3 (2827) I ref_nt_0di:ref4 (2827)

7.9.5.1.314 ref_nt_0dr

set of non-timed references of real type

member	type	description
ref1	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #1
ref2	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #2
ref3	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #3
ref4	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #4
ref5	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #5
ref6	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #6
ref7	ref_nt_0dr_ref (7.9.5.1.315)	Reference signal #7

Type of: ref_nt:zerod_real (2826)

7.9.5.1.315 ref_nt_0dr_ref

a non-timed reference of real type

member	type	description
value	float (7.9.5.1.2)	Value of the reference. Real scalar.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_nt_0dr:ref1 (2829) I ref_nt_0dr:ref2 (2829) I ref_nt_0dr:ref3 (2829) I ref_nt_0dr:ref4 (2829) I ref_nt_0dr:ref5 (2829) I ref_nt_0dr:ref6 (2829) I ref_nt_0dr:ref7 (2829)

7.9.5.1.316 ref_nt_0ds

set of non-timed references of string type

member	type	description
ref1	ref_nt_0ds_ref (7.9.5.1.317)	Reference signal #1
ref2	ref_nt_0ds_ref (7.9.5.1.317)	Reference signal #2

Type of: ref_nt:zerod_string (2826)

7.9.5.1.317 ref_nt_0ds_ref

a non-timed reference of string type

member	type	description
value	string (7.9.5.1.4)	Value of the reference. String
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_nt_0ds:ref1 (2831) I ref_nt_0ds:ref2 (2831)

7.9.5.1.318 ref_nt_1di

set of non-timed references of vecint type

member	type	description
ref1	ref_nt_1di_ref (7.9.5.1.319)	Reference signal #1
ref2	ref_nt_1di_ref (7.9.5.1.319)	Reference signal #2
ref3	ref_nt_1di_ref (7.9.5.1.319)	Reference signal #3
ref4	ref_nt_1di_ref (7.9.5.1.319)	Reference signal #4

Type of: ref_nt:oned_int (2826)

7.9.5.1.319 ref_nt_1di_ref

a non-timed reference of vecint type

member	type	description
value	vecint_type (7.9.5.1.15)	Value of the reference. Vector of integers.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_nt_1di:ref1 (2833) I ref_nt_1di:ref2 (2833) I ref_nt_1di:ref3 (2833) I ref_nt_1di:ref4 (2833)

7.9.5.1.320 ref_nt_1dr

set of non-timed references of vecflt type

member	type	description
ref1	ref_nt_1dr_ref (7.9.5.1.321)	Reference signal #1
ref2	ref_nt_1dr_ref (7.9.5.1.321)	Reference signal #2
ref3	ref_nt_1dr_ref (7.9.5.1.321)	Reference signal #3
ref4	ref_nt_1dr_ref (7.9.5.1.321)	Reference signal #4
ref5	ref_nt_1dr_ref (7.9.5.1.321)	Reference signal #5

Type of: ref_nt:oned_real (2826)

7.9.5.1.321 ref_nt_1dr_ref

a non-timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the reference. Vector.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_nt_1dr:ref1 (2835) I ref_nt_1dr:ref2 (2835) I ref_nt_1dr:ref3 (2835) I ref_nt_1dr:ref4 (2835) I ref_nt_1dr:ref5

(2835)

7.9.5.1.322 ref_t

set of timed references

member	type	description
zerod_real	ref_t_0dr (7.9.5.1.325)	0d reference of real type
zerod_int	ref_t_0di (7.9.5.1.323)	0d reference of integer type
oned_real	ref_t_1dr (7.9.5.1.329)	1d reference of real type
oned_int	ref_t_1di (7.9.5.1.327)	1d reference of integer type

Type of: reference:timed (2568)

7.9.5.1.323 ref_t_0di

set of timed references of integer type

member	type	description
ref1	ref_t_0di_ref (7.9.5.1.324)	Reference signal #1
ref2	ref_t_0di_ref (7.9.5.1.324)	Reference signal #2
ref3	ref_t_0di_ref (7.9.5.1.324)	Reference signal #3
ref4	ref_t_0di_ref (7.9.5.1.324)	Reference signal #4

Type of: ref_t:zerod_int (2837)

7.9.5.1.324 ref_t_0di_ref

a timed reference of integer type

member	type	description
value	integer (7.9.5.1.3)	Value of the reference. Integer scalar. Time-dependent.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_t_0di:ref1 (2838) I ref_t_0di:ref2 (2838) I ref_t_0di:ref3 (2838) I ref_t_0di:ref4 (2838)

7.9.5.1.325 ref_t_0dr

set of timed references of real type

member	type	description
ref1	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #1
ref2	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #2
ref3	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #3
ref4	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #4
ref5	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #5
ref6	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #6
ref7	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #7
ref8	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #8
ref9	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #9
ref10	ref_t_0dr_ref (7.9.5.1.326)	Reference signal #10

Type of: ref_t:zerod_real (2837)

7.9.5.1.326 ref_t_0dr_ref

a timed reference of real type

member	type	description
value	float (7.9.5.1.2)	Value of the reference. Real scalar. Time-dependent.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_t_0dr:ref1 (2840) I ref_t_0dr:ref10 (2840) I ref_t_0dr:ref2 (2840) I ref_t_0dr:ref3 (2840) I ref_t_0dr:ref4 (2840) I ref_t_0dr:ref5 (2840) I ref_t_0dr:ref6 (2840) I ref_t_0dr:ref7 (2840) I ref_t_0dr:ref8 (2840) I ref_t_0dr:ref9 (2840)

7.9.5.1.327 ref_t_1di

set of timed references of vecint type

member	type	description
ref1	ref_t_1di_ref (7.9.5.1.328)	Reference signal #1
ref2	ref_t_1di_ref (7.9.5.1.328)	Reference signal #2
ref3	ref_t_1di_ref (7.9.5.1.328)	Reference signal #3
ref4	ref_t_1di_ref (7.9.5.1.328)	Reference signal #4

Type of: ref_t:oned_int (2837)

7.9.5.1.328 ref_t_1di_ref

a timed reference of vecint type

member	type	description
value	vecint_type (7.9.5.1.15)	Value of the reference. Vector of integers. Time-dependent.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_t_1di:ref1 (2842) I ref_t_1di:ref2 (2842) I ref_t_1di:ref3 (2842) I ref_t_1di:ref4 (2842)

7.9.5.1.329 ref_t_1dr

set of timed references of vecflt type

member	type	description
ref1	ref_t_1dr_ref (7.9.5.1.330)	Reference signal #1
ref2	ref_t_1dr_ref (7.9.5.1.330)	Reference signal #2
ref3	ref_t_1dr_ref (7.9.5.1.330)	Reference signal #3
ref4	ref_t_1dr_ref (7.9.5.1.330)	Reference signal #4
ref5	ref_t_1dr_ref (7.9.5.1.330)	Reference signal #5

Type of: ref_t:oned_real (2837)

7.9.5.1.330 ref_t_1dr_ref

a timed reference of vecflt type

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the reference. Vector. Time-dependent.
description	string (7.9.5.1.4)	Description of the reference. String.

Type of: ref_t_1dr:ref1 (2844) I ref_t_1dr:ref2 (2844) I ref_t_1dr:ref3 (2844) I ref_t_1dr:ref4 (2844) I ref_t_1dr:ref5 (2844)

7.9.5.1.331 ref_wall_typ

List of reference wall compositions; Array of structures (number of reference compositions)

member	type	description
label	string (7.9.5.1.4)	Label for this reference wall type
thickness	vecflt_type (7.9.5.1.14)	Thickness(m). Float vector, dimensions: 1. layer index
stochiometry	matflt_type (7.9.5.1.12)	Material composition of layer. Float matrix, dimensions: 1. layer index, 2. element number (numbering as in surface.elements/surface.compound array)
dx	matflt_type (7.9.5.1.12)	Cell spacings for 1d layer height discretization; Float matrix (max. number of cells for layer, layer index), dimensions: 1. cell index, 2. layer index

Type of: surface:ref_wall_typ (2918)

7.9.5.1.332 refl_receive

Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.

member	type	description
name	string (7.9.5.1.4)	Signal name
raw_signal	t_series_real (7.9.5.1.405)	Raw antenna signal, possibly code dependent, may not always be available; usually without mixing of local oscillator; Time series; Vector (ntime_raw)
io_signal	t_series_real (7.9.5.1.405)	Local oscillator signal, for mixing with raw signal; Time series; Vector (ntime_raw)
iq_receiver	t_series_cplx (7.9.5.1.404)	I and Q signals from the receiver; already processed by code (or hardware); Time series; Vector (ntime_receiver)
antenna_ind	integer (7.9.5.1.3)	Index of the receiving antenna in the antennas vector, starting at 0
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: reflectomet:refl_receive (2569)

7.9.5.1.333 reflectometry_antennas

Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array.

member	type	description
name	string (7.9.5.1.4)	Antenna name
type	identifier (7.9.5.1.231)	Antenna type: 1: sending, 2: receiving, 3: both
origin	float (7.9.5.1.2)	To be defined: annotation and type
radfield	reflectometry_radfield (7.9.5.1.334)	Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent
geometry	float (7.9.5.1.2)	To be defined: annotation and type
launchsignal	float (7.9.5.1.2)	To be defined: annotation and type

Type of: reflectomet:antennas (2569)

7.9.5.1.334 reflectometry_radfield

Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent

member	type	description
type	identifier (7.9.5.1.231)	Identify type of source: 0: Gaussian, 1: waveguide mode, 2: arbitrary E field; corresponding substructure must be filled to provide the information.
position	vecflt_type (7.9.5.1.14)	Center position in local x-y-z coordinate system [m]; Vector(3)
gaussian(:)	reflectometry_radfield_gaussian (7.9.5.1.335)	Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only. Time-dependent
efield(:)	reflectometry_radifield_efield (7.9.5.1.336)	complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2)

Type of: reflectometry_antennas:radfield (2848)

7.9.5.1.335 reflectometry_radfield_gaussian

Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only

member	type	description
aperture	simp_apert (7.9.5.1.383)	Physical limits of the Gaussian wave field; any rotation here is at odds with the Gaussian geometry
waistsize	vecflt_type (7.9.5.1.14)	Beam waist size [m]; Vector(2)
waistzpos	vecflt_type (7.9.5.1.14)	Beam waist position along local z axis [m]; Vector(2)
tiltangle	vecflt_type (7.9.5.1.14)	tilt angle relative to local z axis [rad]; Vector(2)
polar_angle	vecflt_type (7.9.5.1.14)	Polarisation angle around local z [rad]; 0 means along the local x axis, i.e. vertical if all angles in the origin field are 0; Scalar
frequency	float (7.9.5.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given

Type of: reflectometry_radfield:gaussian (2849)

7.9.5.1.336 reflectometry_radifield_efield

complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2)

member	type	description
grid2d	reggrid (7.9.5.1.337)	Coordinate values for the grid for the electric field arrays. Vector(ndim1) and Vector(ndim2)
e1	matcplx_type (7.9.5.1.256)	Electric field component along local x direction [V/m]. Matrix(ndim1,ndim2)
e2	matcplx_type (7.9.5.1.256)	Electric field component along local y direction [V/m]. Matrix(ndim1,ndim2)
frequency	float (7.9.5.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given

Type of: reflectometry_radfield:efield (2849)

7.9.5.1.337 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.5.1.14)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.5.1.14)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (2622) I reflectometry_radifield_efield:grid2d (2851)

7.9.5.1.338 rfameasure

Measured values

member	type	description
ti	exp1D (7.9.5.1.198)	Ion temperature [eV]. Vector (nchannels)

Type of: rfadiag:measure (2570)

7.9.5.1.339 rfasetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.5.1.349)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: rfadiag:setup (2570)

7.9.5.1.340 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.5.1.397)	Spot characteristics
phaseellipse	phaseellipse (7.9.5.1.296)	Phase ellipse characteristics

Type of: antenna_ec:beam (2582) I antenna_lh:beam (2584)

7.9.5.1.341 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.5.1.2)	Major radius [m]
z	float (7.9.5.1.2)	Altitude [m]

Type of: circularcoil:centre (2597) I eqgeometry:active_limit (2707) I eqgeometry:geom_axis (2707) I eqgeometry:left_low_st (2707) I eqgeometry:left_up_st (2707) I eqgeometry:right_low_st (2707) I eqgeometry:right_up_st (2707) I mag_axis:position (2768)

7.9.5.1.342 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius [m]
z	vecflt_type (7.9.5.1.14)	Altitude [m]

Type of: flush:position (2717) I isoflux:position (2752) I limiter_unit:position (2763) I mhd_ideal_wall2d:position (2773) I mhd_res_wall2d:position (2775) I omnigen_surf:rz (2795) I planecoil:coordinates (2812) I q:position (2823) I setup_bprobe:position (2891) I straps:coord_strap (2917) I vessel:position (2578) I wall_blocks_unit:position (2953) I wall_vessel_annular:inside (2956) I wall_vessel_annular:outside (2956) I xpts:position (2971)

7.9.5.1.343 rz1D_npoints

Structure for list of R,Z positions (1D), with mention of the number of points relevant for a given time slice

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.5.1.14)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.5.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

7.9.5.1.344 rz1Dexp

Structure for list of R,Z positions (1D), with R and Z time-depent and experimental.

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius [m]. Vector(npoints). Time-dependent
z	vecflt_type (7.9.5.1.14)	Altitude [m]. Vector(npoints). Time-dependent

Type of: eqgeometry:boundary (2707) I eqgeometry:xpts (2707)

7.9.5.1.345 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.5.1.12)	Major radius [m]
z	matflt_type (7.9.5.1.12)	Altitude [m]

Type of: coord_sys:position (2622) I geom_iron:rzcoordinate (2739) I pfpageometry:rzcoordinate (2808)

7.9.5.1.346 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.5.1.6)	Major radius [m]
z	array3dflt_type (7.9.5.1.6)	Altitude [m]

Type of: pfgeometry:rzcoordinate (2807)

7.9.5.1.347 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.5.1.2)	Major radius [m]
z	float (7.9.5.1.2)	Altitude [m]
phi	float (7.9.5.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (2582) I antenna_lh:position (2584) I fusiondiag_voxels:centre (2738) I fusiondiag_voxels:direction (2738) I msediag_setup:pivot_point (2784) I msediag_setup:second_point (2784) I pelletpath:pivot_point (2802) I pelletpath:second_point (2802) I setup_inject:position (2893)

7.9.5.1.348 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius [m]
z	vecflt_type (7.9.5.1.14)	Altitude [m]
phi	vecflt_type (7.9.5.1.14)	Toroidal angle [rad]

Type of: ablationrate:position (2581) I beamlets:position (2589) I deposprofile:position (2654) I edges:edge_rzphi (2701) I fusiondiag_colliunit_circ:centre (2727) I halpha_setup:pivot_point (2744) I halpha_setup:second_point (2744) I launchs:position (2556) I lithsetup:position (2766) I msediag_emiss_chord:setup (2779) I setup_line:pivot_point (2894) I setup_line:second_point (2894) I setup_line:third_point (2894) I tssetup:position (2935)

7.9.5.1.349 rzphi1Dexp

Structure for list of R,Z,phi positions (1D)

member	type	description
r	exp1D (7.9.5.1.198)	Major radius [m]
z	exp1D (7.9.5.1.198)	Altitude [m]
phi	exp1D (7.9.5.1.198)	Toroidal angle [rad]

Type of: cxsetup:position (2651) I ecemeasure:position (2691) I lang_derived:position (2754) I lang_measure:position (2755) I rfasetup:position (2854)

7.9.5.1.350 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.5.1.12)	Major radius [m]
z	matflt_type (7.9.5.1.12)	Altitude [m]
phi	matflt_type (7.9.5.1.12)	Toroidal angle [rad]

Type of: fusiondiag_colliunit_poly:nodes (2728) I setup_floops:position (2892)

7.9.5.1.351 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.5.1.6)	Major radius [m]
z	array3dflt_type (7.9.5.1.6)	Altitude [m]
phi	array3dflt_type (7.9.5.1.6)	Toroidal angle [rad]

Type of: turbcoordsys:position (2937)

7.9.5.1.352 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.5.1.14)	Position : major radius [m]
z	vecflt_type (7.9.5.1.14)	Position : altitude [m]
phi	vecflt_type (7.9.5.1.14)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.5.1.14)	Width : major radius [m]
dz	vecflt_type (7.9.5.1.14)	Width : altitude [m]
dphi	vecflt_type (7.9.5.1.14)	Width : toroidal angle [rad]

Type of: msediag_setup_polarimetry:rzgamma (2785)

7.9.5.1.353 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.5.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.5.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.5.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.5.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (2571)

7.9.5.1.354 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.5.1.14)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.5.1.12)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.5.1.14)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.5.1.12)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.5.1.14)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.5.1.14)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.5.1.14)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.5.1.14)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.5.1.14)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (2571)

7.9.5.1.355 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.5.1.372)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.5.1.372)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.5.1.372)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.5.1.372)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.5.1.372)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.5.1.372)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.5.1.372)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.5.1.372)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.5.1.372)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.5.1.372)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.5.1.372)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (2572)

7.9.5.1.356 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.5.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.5.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.5.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.5.1.15)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.5.1.15)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.5.1.14)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.5.1.14)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.5.1.14)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.5.1.14)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (2572)

7.9.5.1.357 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.5.1.364)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.5.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.5.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.5.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.5.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.5.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.5.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.5.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.5.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.5.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.5.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.5.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.5.1.4)	chemical compostion of the divertor
coordinate	string (7.9.5.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.5.1.372)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.5.1.372)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.5.1.364)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.5.1.372)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.5.1.372)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.

member	type	description
ecrh_harm	scenario_int (7.9.5.1.364)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.5.1.372)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.5.1.372)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.5.1.364)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.5.1.372)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.5.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.5.1.372)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.5.1.372)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.5.1.372)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.5.1.372)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.5.1.372)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.5.1.372)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (2572)

7.9.5.1.358 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.5.1.372)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.5.1.372)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.5.1.372)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.5.1.372)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.5.1.372)	electron energy confimenent time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.5.1.372)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.5.1.372)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.5.1.372)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.5.1.372)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (2572)

7.9.5.1.359 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.5.1.372)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.5.1.372)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.5.1.372)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.5.1.372)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.5.1.372)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.5.1.372)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.5.1.372)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.5.1.372)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.5.1.372)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.5.1.372)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.5.1.372)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.5.1.372)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.5.1.372)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.5.1.372)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.5.1.372)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (2572)

7.9.5.1.360 scenario_edge

edge value (@ LCMS)

member	type	description

member	type	description
te_edge	scenario_ref (7.9.5.1.372)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.5.1.372)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.5.1.372)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.5.1.372)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.5.1.372)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.5.1.372)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.5.1.372)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.5.1.372)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.5.1.372)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.5.1.372)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.5.1.372)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.5.1.372)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (2572)

7.9.5.1.361 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.5.1.372)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.5.1.372)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.5.1.372)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.5.1.372)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.5.1.372)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.5.1.372)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.5.1.372)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.5.1.372)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.5.1.372)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.5.1.372)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.5.1.372)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.5.1.372)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.5.1.372)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.5.1.372)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.5.1.372)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.5.1.372)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (2572)

7.9.5.1.362 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.5.1.372)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.5.1.372)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.5.1.372)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.5.1.372)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.5.1.372)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.5.1.372)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.5.1.372)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.5.1.372)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.5.1.372)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.5.1.372)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.5.1.372)	poloidal beta, thermal contribution []. Time-dependent.

member	type	description
beta_tor_th	scenario_ref (7.9.5.1.372)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.5.1.372)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.5.1.372)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.5.1.372)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.5.1.372)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (2572)

7.9.5.1.363 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.5.1.372)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.5.1.372)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.5.1.372)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.5.1.372)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.5.1.372)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.5.1.372)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.5.1.372)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.5.1.372)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.5.1.372)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.5.1.372)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.5.1.372)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.5.1.372)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.5.1.372)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.5.1.372)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.5.1.372)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.5.1.372)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.5.1.372)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.5.1.372)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.5.1.372)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.5.1.372)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.5.1.372)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.5.1.372)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.5.1.372)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.5.1.372)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.5.1.372)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.5.1.372)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.5.1.372)	total power input to the plasma, including ohmic power and fusion power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.5.1.372)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.5.1.372)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.5.1.372)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.5.1.372)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.5.1.372)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.5.1.372)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.5.1.372)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.5.1.372)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.5.1.372)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.5.1.372)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.5.1.372)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (2572)

7.9.5.1.364 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.5.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.5.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (2872) I scenario_configuration:ecrh_harm (2872) I scenario_configuration:ecrh_mode (2872) I scenario_configuration:grad_b_drift (2872) I scenario_itb:itb_type (2880)

7.9.5.1.365 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.5.1.372)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.5.1.372)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.5.1.372)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.5.1.372)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.5.1.372)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.5.1.372)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.5.1.372)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.5.1.372)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.5.1.372)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.5.1.372)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.5.1.372)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.5.1.364)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (2572)

7.9.5.1.366 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.5.1.372)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.5.1.372)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.5.1.372)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.5.1.372)	limiter/divertor ion density [m^-3]. Time-dependent.
p_peak_div	scenario_ref (7.9.5.1.372)	peak power on divertor [W]. Time-dependent.
surf_temp	scenario_ref (7.9.5.1.372)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.5.1.372)	Power flux on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.5.1.372)	radiative power in the divertor zone [W]. Time-dependent.
wall_temp	scenario_ref (7.9.5.1.372)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.5.1.372)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.5.1.372)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.5.1.372)	flux pump out for each ion species [s^-1]. Time-dependent.

Type of: scenario:lim_div_wall (2572)

7.9.5.1.367 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.5.1.372)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.5.1.372)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.5.1.372)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.5.1.372)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (2572)

7.9.5.1.368 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.5.1.372)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.5.1.372)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.5.1.372)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.5.1.372)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.5.1.372)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.5.1.372)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (2572)

7.9.5.1.369 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.5.1.372)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.5.1.372)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.5.1.372)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.5.1.372)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.5.1.372)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.5.1.372)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.5.1.372)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.5.1.372)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.5.1.372)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.5.1.372)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.5.1.372)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.5.1.372)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (2572)

7.9.5.1.370 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.5.1.372)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.5.1.372)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.5.1.372)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.5.1.372)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.5.1.372)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.5.1.372)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.5.1.372)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.5.1.372)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.5.1.372)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.5.1.372)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (2572)

7.9.5.1.371 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.5.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (2572)

7.9.5.1.372 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.5.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.5.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (2870) I scenario_centre:Zmag (2870) I scenario_centre:ne0 (2870) I scenario_centre:ni0 (2870) I scenario_centre:phi0 (2870) I scenario_centre:psi0 (2870) I scenario_centre:q0 (2870) I scenario_centre:shift0 (2870) I scenario_centre:te0 (2870) I scenario_centre:ti0 (2870) I scenario_centre:vtor_0 (2870) I scenario_configuration:LH_freq (2872) I scenario_configuration:LH_npar (2872) I scenario_configuration:ecrh_freq (2872) I scenario_configuration:ecrh_loc (2872) I scenario_configuration:ecrh_pol_ang (2872) I scenario_configuration:ecrh_tor_ang (2872) I scenario_configuration:enb (2872) I scenario_configuration:icrh_freq (2872) I scenario_configuration:icrh_phase (2872) I scenario_configuration:pellet_ang (2872) I scenario_configuration:pellet_nba (2872) I scenario_configuration:pellet_v (2872) I scenario_configuration:r_nbi (2872) I scenario_confinement:tau_cur_diff (2873) I scenario_confinement:tau_e (2873) I scenario_confinement:tau_e_ee (2873) I scenario_confinement:tau_e_ei (2873) I scenario_confinement:tau_e_ii (2873) I scenario_confinement:tau_h_sc (2873) I scenario_confinement:tau_he (2873) I scenario_confinement:tau_i_rol (2873) I scenario_confinement:tau_l_sc (2873) I scenario_currents:RR (2874) I scenario_currents:i_align (2874) I scenario_currents:i_boot (2874) I scenario_currents:i_cd_tot (2874) I scenario_currents:i_eccd (2874) I scenario_currents:i_fast_ion (2874) I scenario_currents:i_fwcd (2874) I scenario_currents:i_lhcd (2874) I scenario_currents:i_nbicd (2874) I scenario_currents:i_ni_tot (2874) I scenario_currents:i_ohm (2874) I scenario_currents:i_par (2874) I scenario_currents:i_runaway (2874) I scenario_currents:v_loop (2874) I scenario_currents:v_meas (2874) I scenario_edge:drho_edge_dt (2875) I scenario_edge:ne_edge (2875) I scenario_edge:neutral_flux (2875) I scenario_edge:ni_edge (2875) I scenario_edge:phi_edge (2875) I scenario_edge:phi_plasma (2875) I scenario_edge:psi_edge (2875) I scenario_edge:q_edge (2875) I scenario_edge:rho_edge (2875) I scenario_edge:te_edge (2875) I scenario_edge:ti_edge (2875) I scenario_edge:vtor_edge (2875) I scenario_energy:dwbpol_dt (2876) I scenario_energy:dwbtorpla_dt (2876) I scenario_energy:dwdia_dt (2876) I scenario_energy:dwth_dt (2876) I scenario_energy:dwtot_dt (2876) I scenario_energy:esup_alpha (2876) I scenario_energy:esup_icrhper (2876) I scenario_energy:esup_icrhtot (2876) I scenario_energy:esup_lhcd (2876) I scenario_energy:esup_nbiperp (2876) I scenario_energy:esup_nbitot (2876) I scenario_energy:w_b_pol (2876) I scenario_energy:w_b_tor_pla (2876) I scenario_energy:w_dia (2876) I scenario_energy:w_th (2876) I scenario_energy:w_tot (2876) I scenario_global:area_ext (2877) I scenario_global:area_pol (2877) I scenario_global:beta_n_th (2877) I scenario_global:beta_normal (2877) I scenario_global:beta_pol (2877) I scenario_global:beta_pol_th (2877) I scenario_global:beta_tor (2877) I scenario_global:beta_tor_th (2877) I scenario_global:dip_dt (2877) I scenario_global:disruption (2877) I scenario_global:ip (2877) I scenario_global:len_sepa (2877) I scenario_global:li (2877) I scenario_global:mode_h (2877) I scenario_global:s_alpha (2877) I scenario_global:volume (2877) I scenario_heat_power:p_l2h_sc (2878) I scenario_heat_power:p_l2h_thr (2878) I scenario_heat_power:p_nbi_icrh (2878) I scenario_heat_power:p_w (2878) I scenario_heat_power:p_wth (2878) I scenario_heat_power:padd_tot (2878) I scenario_heat_power:pbrem (2878) I scenario_heat_power:pcyclo (2878) I scenario_heat_power:pdd_fus (2878) I scenario_heat_power:pecrh (2878) I scenario_heat_power:pecrh_th (2878) I scenario_heat_power:pei (2878) I scenario_heat_power:pel_fus (2878) I scenario_heat_power:pel_icrh (2878) I scenario_heat_power:pel_nbi (2878) I scenario_heat_power:pel_tot (2878) I scenario_heat_power:pfus_dt (2878) I scenario_heat_power:pfus_nbi (2878) I scenario_heat_power:pfus_th (2878) I scenario_heat_power:picrh (2878) I scenario_heat_power:picrh_th (2878) I scenario_heat_power:pion_fus (2878) I scenario_heat_power:pion_icrh (2878) I scenario_heat_power:pion_nbi (2878) I scenario_heat_power:pion_tot (2878) I scenario_heat_power:pioniz (2878) I scenario_heat_power:plh (2878) I scenario_heat_power:plh_th (2878) I scenario_heat_power:ploss (2878) I scenario_heat_power:ploss_fus (2878) I scenario_heat_power:ploss_icrh (2878) I scenario_heat_power:ploss_nbi (2878) I scenario_heat_power:pnbi (2878) I scenario_heat_power:pnbi_co_cur (2878) I scenario_heat_power:pnbi_counter (2878) I scenario_heat_power:pnbi_th (2878) I scenario_heat_power:pohmic (2878) I scenario_heat_power:prad (2878) I scenario_itb:h_itb (2880) I scenario_itb:ne_itb (2880) I scenario_itb:ni_itb (2880) I scenario_itb:phi_itb (2880) I scenario_itb:psi_itb (2880) I scenario_itb:q_min (2880) I scenario_itb:rho_itb (2880) I scenario_itb:te_itb (2880) I scenario_itb:ti_itb (2880) I scenario_itb:vtor_itb (2880) I scenario_itb:width_itb (2880) I scenario_lim_div_wall:detach_st (2881) I scenario_lim_div_wall:ne_lim_div (2881) I scenario_lim_div_wall:ni_lim_div (2881) I scenario_lim_div_wall:p_lim_div (2881) I scenario_lim_div_wall:p_peak_div (2881) I scenario_lim_div_wall:p_rad_div (2881) I scenario_lim_div_wall:pump_flux (2881) I scenario_lim_div_wall:surf_temp (2881) I scenario_lim_div_wall:te_lim_div (2881) I scenario_lim_div_wall:ti_lim_div (2881) I scenario_lim_div_wall:wall_state (2881) I scenario_lim_div_wall:wall_temp (2881) I scenario_line_ave:dne_line_dt (2882) I scenario_line_ave:ne_line (2882) I scenario_line_ave:ne_zeff_line (2882) I scenario_line_ave:zeff_line (2882) I scenario_neutron:ndd_nbi_nbi (2883) I scenario_neutron:ndd_nbi_th (2883) I scenario_neutron:ndd_th (2883) I scenario_neutron:ndd_tot (2883) I scenario_neutron:ndt_th (2883) I scenario_neutron:ndt_tot (2883) I scenario_ninety_five:elon (2884) I scenario_ninety_five:ne_95 (2884) I scenario_ninety_five:ni_95 (2884) I scenario_ninety_five:phi_95 (2884)

I scenario_ninety_five:q_95 (2884) I scenario_ninety_five:rho_95 (2884) I scenario_ninety_five:te_95 (2884) I scenario_ninety_five:ti_95 (2884) I scenario_ninety_five:tria_95 (2884) I scenario_ninety_five:tria_lo_95 (2884) I scenario_ninety_five:tria_up_95 (2884) I scenario_ninety_five:vtor_95 (2884) I scenario_pedestal:ne_ped (2885) I scenario_pedestal:ni_ped (2885) I scenario_pedestal:phi_ped (2885) I scenario_pedestal:pressure_ped (2885) I scenario_pedestal:psi_ped (2885) I scenario_pedestal:q_ped (2885) I scenario_pedestal:rho_ped (2885) I scenario_pedestal:te_ped (2885) I scenario_pedestal:ti_ped (2885) I scenario_pedestal:vtor_ped (2885) I scenario_references:bvac_r (2888) I scenario_references:enhancement (2888) I scenario_references:gas_puff (2888) I scenario_references:ip (2888) I scenario_references:isotopic (2888) I scenario_references:nbar (2888) I scenario_references:nbi_td_ratio (2888) I scenario_references:pecrh (2888) I scenario_references:picrh (2888) I scenario_references:plh (2888) I scenario_references:pnbi (2888) I scenario_references:pol_flux (2888) I scenario_references:xecrh (2888) I scenario_references:zeffl (2888) I scenario_sol:gas_puff (2889) I scenario_sol:l_ne_sol (2889) I scenario_sol:l_ni_sol (2889) I scenario_sol:l_qe_sol (2889) I scenario_sol:l_qi_sol (2889) I scenario_sol:l_te_sol (2889) I scenario_sol:l_ti_sol (2889) I scenario_sol:p_rad_sol (2889) I scenario_vol_ave:dne_ave_dt (2890) I scenario_vol_ave:meff_ave (2890) I scenario_vol_ave:ne_ave (2890) I scenario_vol_ave:ni_ave (2890) I scenario_vol_ave:omega_ave (2890) I scenario_vol_ave:pellet_flux (2890) I scenario_vol_ave:te_ave (2890) I scenario_vol_ave:ti_ave (2890) I scenario_vol_ave:ti_o_te_ave (2890) I scenario_vol_ave:zeff_ave (2890)

7.9.5.1.373 scenario_references

References

member	type	description
plh	scenario_ref (7.9.5.1.372)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.5.1.372)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.5.1.372)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.5.1.372)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.5.1.372)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.5.1.372)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.5.1.372)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.5.1.372)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.5.1.372)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.5.1.372)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.5.1.372)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.5.1.372)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.5.1.372)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.5.1.372)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (2572)

7.9.5.1.374 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.5.1.372)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.5.1.372)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.5.1.372)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.5.1.372)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.5.1.372)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.5.1.372)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.5.1.372)	radiative power of the SOL [W]. Time-dependent.
gas_puff	scenario_ref (7.9.5.1.372)	gas puff flux for each ion species [s^-1]. Time-dependent.

Type of: scenario:sol (2572)

7.9.5.1.375 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.5.1.372)	volume averaged electron temperature [eV]. Time-dependent.

member	type	description
ti_ave	scenario_ref (7.9.5.1.372)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.5.1.372)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.5.1.372)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.5.1.372)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.5.1.372)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.5.1.372)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.5.1.372)	volume averaged effecive mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.5.1.372)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.5.1.14)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.5.1.372)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (2572)

7.9.5.1.376 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.5.1.16)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.5.1.342)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.5.1.14)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.5.1.14)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.5.1.14)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.5.1.14)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.5.1.15)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (2596)

7.9.5.1.377 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.5.1.16)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.5.1.16)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.5.1.350)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.5.1.15)	Number of points describing each loop in the "position" matrices. Vector (nloops)

Type of: flux_loops:setup_floops (2718)

7.9.5.1.378 setup_inject

Detailed information on an injection unit.

member	type	description
position	rzphi0D (7.9.5.1.347)	Position of centre of injection unit surface.
tang_rad	float (7.9.5.1.2)	Tagency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.5.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.5.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
focal_len_hz	float (7.9.5.1.2)	Horizontal focal length along the beam line [m]
focal_len_vc	float (7.9.5.1.2)	Vertical focal length along the beam line [m]
divergence	divergence (7.9.5.1.174)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.5.1.74)	Detailed information on beamlets.

Type of: nbi_unit:setup_inject (2787)

7.9.5.1.379 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.5.1.348)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.5.1.14)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.5.1.14)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.5.1.14)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.5.1.348)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.5.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.5.1.14)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.5.1.348)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.5.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: ecesetup:los (2692) I fusiondiag_colli_circ:setup_line (2724) I fusiondiag_colli_poly:setup_line (2725) I lineintegraldiag:setup_line (2764)

7.9.5.1.380 shape

Pellet shape

member	type	description
shape_sph	shape_sph (7.9.5.1.382)	Pellet shape
shape_cyl	shape_cyl (7.9.5.1.381)	Pellet shape

Type of: pellets:shape (2565)

7.9.5.1.381 shape_cyl

Pellet shape

member	type	description
radius	float (7.9.5.1.2)	Pellet radius (m)
height	float (7.9.5.1.2)	Pellet height (m)

Type of: shape:shape_cyl (2895)

7.9.5.1.382 shape_sph

Pellet shape

member	type	description
radius	float (7.9.5.1.2)	Pellet radius (m)

Type of: shape:shape_sph (2895)

7.9.5.1.383 simp_apert

Simple aperture specification: rectangular or elliptical

member	type	description
type	identifier (7.9.5.1.231)	Shape identifier; 0: rectangular, 1: elliptical
sizes	vecflt_type (7.9.5.1.14)	Rectangular size a, b or diameters for elliptical shapes [m]; Time-dependent; Vector (2)
angle	float (7.9.5.1.2)	Rotation of aperture around its center [rad]

Type of: reflectometry_radfield_gaussian:aperture (2850)

7.9.5.1.384 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	matflt_type (7.9.5.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Array2d (nrho,nzimp)
imp	matflt_type (7.9.5.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Array2d (nrho,nzimp)

Type of: coresource_values:qz (2644) I coresource_values:sz (2644)

7.9.5.1.385 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.5.1.12)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.5.1.12)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource_values:qi (2644) I coresource_values:si (2644) I coresource_values:ui (2644)

7.9.5.1.386 source_mark

Source given as a set of markers (test particles)

member	type	description
var_coord	vecint_type (7.9.5.1.15)	Identifies the coordinates specifies in var1, var2, var3, var4, var5, var6 and var7. var_coord(K) describe the coordinate represented in varK, for K=1,2...7. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin. Vector (7)
var1	vecflt_type (7.9.5.1.14)	Phase space variable number one characterising the markers. Time-dependent; Vector (n_particles)
var2	vecflt_type (7.9.5.1.14)	Phase space variable number two characterising the markers. Time-dependent; Vector (n_particles)
var3	vecflt_type (7.9.5.1.14)	Phase space variable number three characterising the markers. Time-dependent; Vector (n_particles)
var4	vecflt_type (7.9.5.1.14)	Phase space variable number four characterising the markers. Time-dependent; Vector (n_particles)
var5	vecflt_type (7.9.5.1.14)	Phase space variable number five characterising the markers. Time-dependent; Vector (n_particles)
var6	vecflt_type (7.9.5.1.14)	Phase space variable number six characterising the markers. Time-dependent; Vector (n_particles)
var7	vecflt_type (7.9.5.1.14)	Phase space variable number seven characterising the markers. Time-dependent; Vector (n_particles)
weight	vecflt_type (7.9.5.1.14)	Weight of the markers; Time-dependent; Vector (n_particles)

7.9.5.1.387 source_on_grid

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid_info	grid_info (7.9.5.1.227)	Specifying the grid; type of the grid (unstructured/structured/rectangular), the grid coordiante, in what variables the source is continuous/discrete, if the source is given at gyrocentre or real particle position.
dim1	array6dflt_type (7.9.5.1.10)	Grid in the first dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim2	array6dflt_type (7.9.5.1.10)	Grid in the second dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim3	array6dflt_type (7.9.5.1.10)	Grid in the third dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim4	array6dflt_type (7.9.5.1.10)	Grid in the fourth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim5	array6dflt_type (7.9.5.1.10)	Grid in the fifth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
dim6	array6dflt_type (7.9.5.1.10)	Grid in the sixth dimension in phase space (as specified in grid_coord). Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
jacobian	array6dflt_type (7.9.5.1.10)	Jacobian of the phase space grid coordinate system specified in grid_coord. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)
source	array6dflt_type (7.9.5.1.10)	Source rate of particles in phase space. The units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if continuous. Time-dependent; Array6d (ndim1, ndim2, ndim3, ndim4, ndim5, ndim6)

Type of: distsource_source:source_grid (2688)

7.9.5.1.388 source_rate

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid	complexgrid (7.9.5.1.88)	Grid for storing the source-rate. Time-dependent; Complexgrid
value	complexgrid_scalar (7.9.5.1.93)	The source-rate of particles in phase space, given on GRID. The units depend on the grid_type: [m^-3 s^-1] if the grid is discrete in energy/velocity and [(m/s)^-3 m^-3 s^-1] if the grid is continuous. Time-dependent; Complexgrid_scalar

Type of: distsource_source:source_rate (2688)

7.9.5.1.389 source_vec

Subtree containing vector source term (radial dimension only)

member	type	description
exp	vecflt_type (7.9.5.1.14)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.5.1.14)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource_values:qe (2644) I coresource_values:se (2644) I coresource_values:ujxb (2644)

7.9.5.1.390 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.5.1.14)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.5.1.14)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.5.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (2626) I profiles1d:qoh (2819)

7.9.5.1.391 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	matflt_type (7.9.5.1.12)	Value of the source term [m^-3.s^-1]; Time-dependent; Array2D (nrho,nzimp)
integral	matflt_type (7.9.5.1.12)	Integral from 0 to rho of the source term. Time-dependent; Array2D(nrho,nzimp)

member	type	description
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:source_term (2749)

7.9.5.1.392 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.5.1.12)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.5.1.12)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.5.1.16)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (2627)

7.9.5.1.393 species

Pellet composition

member	type	description
amn	vecflt_type (7.9.5.1.14)	Atomic mass number (lumped species are allowed); Vector (nspecies)
zn	vecflt_type (7.9.5.1.14)	Nuclear charge (lumped species are allowed); Vector (nspecies)
concentr	vecflt_type (7.9.5.1.14)	Concentration of species on pellet ranging from 0 to 1; Vector (nspecies)
subl_energy	vecflt_type (7.9.5.1.14)	Sublimation energy per atom of species on pellet in eV; Vector (nspecies)

Type of: pellets:species (2565)

7.9.5.1.394 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.5.1.4)	Name of species
amn	float (7.9.5.1.2)	Atomic mass number of the species
zn	float (7.9.5.1.2)	Nuclear charge of the impurity
zmin	float (7.9.5.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.5.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (2548) I plasma:species (2813)

7.9.5.1.395 spectral

This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.

member	type	description
emissivity	msediag_emissivity (7.9.5.1.265)	Emissivity characteristics.
radiance	msediag_radiance (7.9.5.1.268)	Emissivity characteristics.
codeparam	codeparam (7.9.5.1.83)	Code parameters

Type of: msediag:spectral (2561)

7.9.5.1.396 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.5.1.243)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.5.1.242)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (2556)

7.9.5.1.397 spot

Spot characteristics

member	type	description
size	vecflt_type (7.9.5.1.14)	Size of the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.5.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (2855)

7.9.5.1.398 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	vecflt_type (7.9.5.1.14)	Effective coefficient of physical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.
chemical	vecflt_type (7.9.5.1.14)	Effective coefficient of chemical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:sputtering (2599)

7.9.5.1.399 src_snk_fav

member	type	description
particles	vecflt_type (7.9.5.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.5.1.14)	Power density associated with the source/sink of particles [W/m^3]; Time-dependent; Vector (npsi)
torque	vecflt_type (7.9.5.1.14)	Torque density due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.5.1.400 src_snk_int

member	type	description
particles	vecflt_type (7.9.5.1.14)	Source/sink particles [s^1 m^-3]; Time-dependedent; Vector (npsi)
power	vecflt_type (7.9.5.1.14)	Power associated with the source/sink of particles [MW/m^3]; Time-dependent; Vector(npsi)
torque	vecflt_type (7.9.5.1.14)	Torque due to the source/sink of particles [Nm/m^3]; Time-dependent; Vector (npsi)

7.9.5.1.401 src_snk_tot

member	type	description
particles	float (7.9.5.1.2)	Source/sink particles [1/s]; Time-dependedent
power	float (7.9.5.1.2)	Power associated with the source/sink of particles [W]; Time-dependent
torque	float (7.9.5.1.2)	Torque due to the source/sink of particles [Nm]; Time-dependent

7.9.5.1.402 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
phase	exp0D (7.9.5.1.197)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.5.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.5.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.5.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float

member	type	description
coord_strap	rz1D (7.9.5.1.342)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (2585)

7.9.5.1.403 surface

State of plasma facing wall surfaces

member	type	description
ref_wall_typ(:)	ref_wall_typ (7.9.5.1.331)	List of reference wall compositions; Array of structures (number of reference compositions)
wall_type	complexgrid_scalar_int (7.9.5.1.95)	Definition of reference wall composition for every wall element; All other fields in this surface data structure refer to the geometric objects identified by the grid/subgrid in this field, in exactly the order given by the subgrid.
layers	layers (7.9.5.1.247)	Data on wall element layers
h_inventory	h_inventory (7.9.5.1.228)	Data on wall element hydrogen inventories
elements(:)	element_desc (7.9.5.1.188)	Description of atomic elements used in wall element layer compositions
compounds(:)	compound_desc (7.9.5.1.106)	Description of chemical compounds used in wall element layer compositions

Type of: wall:surface (2579)

7.9.5.1.404 t_series_cplx

Time series

member	type	description
time_wind	vecflt_type (7.9.5.1.14)	Time trace [s]; Time-dependent; Vector (n)
values_re	vecflt_type (7.9.5.1.14)	Real part of data; Time-dependent; Vector (n)
values_im	vecflt_type (7.9.5.1.14)	Imaginary part of data; Time-dependent; Vector (n)

Type of: refl_receive:iq_receiver (2847)

7.9.5.1.405 t_series_real

Time series

member	type	description
time_wind	vecflt_type (7.9.5.1.14)	Time trace [s]; Time-dependent; Vector (n)
values	vecflt_type (7.9.5.1.14)	Values of the sigal; Time-dependent; Vector (n)

Type of: refl_receive:io_signal (2847) I refl_receive:raw_signal (2847)

7.9.5.1.406 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
table_0d	float (7.9.5.1.2)	NO DOCS
table_1d	vecflt_type (7.9.5.1.14)	NO DOCS
table_2d	matflt_type (7.9.5.1.12)	NO DOCS
table_3d	array3dflt_type (7.9.5.1.6)	NO DOCS
table_4d	array4dflt_type (7.9.5.1.8)	NO DOCS
table_5d	array5dflt_type (7.9.5.1.9)	NO DOCS
table_6d	array6dflt_type (7.9.5.1.10)	NO DOCS

Type of: tables:table (2922)

7.9.5.1.407 tables

Definition of a process

member	type	description
ndim	integer (7.9.5.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.5.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.5.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.5.1.4)	Unit of the process result
result_trans	integer (7.9.5.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()
table(:)	table (7.9.5.1.406)	Array of data tables, one entry per species. Vector(nchargestates)
data_source	string (7.9.5.1.4)	Filename or subroutine name used to provide this data.
data_provide	string (7.9.5.1.4)	ITM responsible person for this data.
data_citation	string (7.9.5.1.4)	Reference to publication(s).

Type of: amns:tables (2535)

7.9.5.1.408 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords(:)	coords (7.9.5.1.109)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (2535)

7.9.5.1.409 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.5.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.5.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.5.1.82)	Circular coil description
planecoil	planecoil (7.9.5.1.297)	Plane coil description
structure	tf_structure (7.9.5.1.410)	Inner TF coil structure

Type of: toroidfield:desc_tfcoils (2575)

7.9.5.1.410 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.5.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.5.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.5.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.5.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.5.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.5.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.5.1.2)	Amplification factor for magnetic field
ritf	float (7.9.5.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.5.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.5.1.2)	External TF coil radius [m]; Scalar

Type of: tf_desc_tfcoils:structure (2924)

7.9.5.1.411 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.5.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.5.1.12)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (2963)

7.9.5.1.412 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.5.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.5.1.10)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.5.1.10)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.5.1.10)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.5.1.10)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.5.1.10)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).
dim6	array6dflt_type (7.9.5.1.10)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.5.1.10)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.5.1.10)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.5.1.413 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.5.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.5.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.5.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.5.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (2541)

7.9.5.1.414 trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.5.1.12)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.5.1.15)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.5.1.12)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.5.1.12)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
phi	matflt_type (7.9.5.1.12)	Toroidal angle of the guiding centre [rad]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.5.1.12)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.5.1.12)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.5.1.12)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.5.1.12)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:trace (2564)

7.9.5.1.415 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.5.1.14)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.5.1.14)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.5.1.14)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.5.1.278)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:te_transp (2648) I neoclassic:mtor_neo (2563) I neoclassic:ne_neo (2563) I neoclassic:te_neo (2563)

7.9.5.1.416 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	matflt_type (7.9.5.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array2d (nrho,nzimp)
vconv_eff	matflt_type (7.9.5.1.12)	Effective convection [m.s^-1]. Time-dependent. Array2d (nrho,nzimp)
exchange	matflt_type (7.9.5.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array2d (nrho,nzimp)
flux	matflt_type (7.9.5.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array2d (nrho,nzimp)
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp_values:nz_transp (2648) I coretransp_values:tz_transp (2648) I neoclassic:nz_neo (2563) I neoclassic:tz_neo (2563)

7.9.5.1.417 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.5.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.5.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.5.1.12)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.5.1.12)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.5.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.5.1.279)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ti_transp (2648) I neoclassic:ni_neo (2563) I neoclassic:ti_neo (2563)

7.9.5.1.418 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.5.1.12)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.5.1.12)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.5.1.12)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)

member	type	description
off_diagonal	offdiagion (7.9.5.1.279)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.5.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:vtor_transp (2648)

7.9.5.1.419 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.5.1.198)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.5.1.198)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (2576)

7.9.5.1.420 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.5.1.348)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (2576)

7.9.5.1.421 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.5.1.14)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.5.1.14)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.5.1.14)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
ie_mass	vecflt_type (7.9.5.1.14)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (2577)

7.9.5.1.422 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.5.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.5.1.424)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.5.1.12)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.5.1.12)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.5.1.12)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.5.1.12)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.5.1.12)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.5.1.12)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.5.1.12)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.5.1.351)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (2577)

7.9.5.1.423 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.5.1.14)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.5.1.14)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.5.1.14)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.5.1.14)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.5.1.14)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.5.1.14)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.5.1.14)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.5.1.12)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.5.1.12)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.5.1.12)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.5.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.5.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.5.1.12)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.5.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.5.1.12)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (2577)

7.9.5.1.424 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.5.1.14)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.5.1.14)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.5.1.14)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.5.1.14)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.5.1.14)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (2937)

7.9.5.1.425 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.5.1.14)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.5.1.14)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.5.1.14)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.5.1.14)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.5.1.14)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.5.1.14)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.5.1.14)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.5.1.12)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.5.1.14)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.5.1.14)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.5.1.12)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.5.1.14)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.5.1.12)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (2577)

7.9.5.1.426 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.5.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.5.1.14)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.5.1.14)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).

member	type	description
en_mag	vecflt_type (7.9.5.1.14)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.5.1.14)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.5.1.12)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.5.1.14)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.5.1.12)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.5.1.14)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.5.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.5.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.5.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.5.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.5.1.14)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.5.1.14)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.5.1.12)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.5.1.12)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (2577)

7.9.5.1.427 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.5.1.14)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.5.1.14)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.5.1.14)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.5.1.14)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.5.1.14)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.5.1.14)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.5.1.14)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.5.1.12)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.5.1.12)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.5.1.12)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (2577)

7.9.5.1.428 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.5.1.14)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.5.1.12)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.5.1.12)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.5.1.12)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.5.1.12)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.5.1.12)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.5.1.12)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.5.1.6)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.5.1.6)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.5.1.6)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (2577)

7.9.5.1.429 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.5.1.6)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.5.1.6)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.5.1.6)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.5.1.6)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (2577)

7.9.5.1.430 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.5.1.8)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.5.1.9)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (2577)

7.9.5.1.431 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.5.1.9)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).
fi	array6dflt_type (7.9.5.1.10)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (2577)

7.9.5.1.432 veccplx_type

Temporary structure for real and imaginary part of complex numbers (vector)

member	type	description
re	vecflt_type (7.9.5.1.14)	Real part
im	vecflt_type (7.9.5.1.14)	Imaginary part

Type of: complexgrid_scalar_cplx:scalar (2609)

7.9.5.1.433 version_ind

Used by shot/run=0/0 to store information about available versions.

member	type	description
description	vecstring_type (7.9.5.1.16)	Description of each version.
releasedate	string (7.9.5.1.4)	Release date
data_release(:)	data_release (7.9.5.1.137)	For this release, an array over each data item (i.e. shot/run pair containing the actual data) included in this release

Type of: amns:version_ind (2535)

7.9.5.1.434 wall2d

2D wall type. Structure array. Replicate this element for each type of possible physics configurations necessary (single contour limiter, disjoints gapped plasma facing components)

member	type	description
wall_id	identifier (7.9.5.1.231)	Use this identifier to tag the type of 2d wall you are using. Use 0 for single contour limiter and 1 for disjoint PFC structure like first wall.

member	type	description
limiter	wall_limiter (7.9.5.1.439)	Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface.
vessel	wall_vessel (7.9.5.1.440)	Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Each vessel layer can be either a simple annular structure of given radial thickness or be made from a set of individual blocks with a given resistivity.

Type of: wall:wall2d (2579)

7.9.5.1.435 wall2d_mhd

Simplified wall that encloses necessary information for RWM codes.

member	type	description
wall_id	identifier (7.9.5.1.231)	NO DOCS
res_wall(:)	mhd_res_wall2d (7.9.5.1.260)	Resistive Wall(s).
ideal_wall	mhd_ideal_wall2d (7.9.5.1.258)	Ideal wall

Type of: wall:wall2d_mhd (2579)

7.9.5.1.436 wall3d

A 3D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas thight vs wall with ports and holes)

member	type	description
wall_id	identifier (7.9.5.1.231)	NO DOCS
grid	complexgrid (7.9.5.1.88)	Grid description

Type of: wall:wall3d (2579)

7.9.5.1.437 wall_blocks

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
blocks_unit(:)	wall_blocks_unit (7.9.5.1.438)	Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

Type of: wall_vessel_unit:blocks (2957)

7.9.5.1.438 wall_blocks_unit

Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

member	type	description
name	string (7.9.5.1.4)	Name or description of the blocks_unit
position	rz1D (7.9.5.1.342)	Position (R,Z coordinates) of a vessel segment. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.5.1.2)	Resistivity of the vessel segment [ohm.m]; Scalar
permeability	float (7.9.5.1.2)	Vessel relative permeability; Scalar

Type of: wall_blocks:blocks_unit (2952)

7.9.5.1.439 wall_limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface.

member	type	description
limiter_unit(:)	limiter_unit (7.9.5.1.248)	Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

Type of: wall2d:limiter (2949)

7.9.5.1.440 wall_vessel

Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Each vessel layer can be either a simple annular structure of given radial thickness or be made from a set of individual blocks with a given resistivity.

member	type	description
vessel_unit(:)	wall_vessel_unit (7.9.5.1.442)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall2d:vessel (2949)

7.9.5.1.441 wall_vessel_annular

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
name	string (7.9.5.1.4)	Name or description of the vessel_unit
inside	rz1D (7.9.5.1.342)	Inner Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
outside	rz1D (7.9.5.1.342)	Outer Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
eta	float (7.9.5.1.2)	Vessel resistivity [ohm.m]; Scalar
permeability	float (7.9.5.1.2)	Vessel relative permeability; Scalar

Type of: wall_vessel_unit:annular (2957)

7.9.5.1.442 wall_vessel_unit

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
annular	wall_vessel_annular (7.9.5.1.441)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)
blocks	wall_blocks (7.9.5.1.437)	Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall_vessel:vessel_unit (2955)

7.9.5.1.443 wall_wall0d

Simple 0D description of plasma-wall interaction

member	type	description
pumping_speed	vecflt_type (7.9.5.1.14)	pumping speed; Time-dependent. vector(nneut); [particles/s]
gas_puff	vecflt_type (7.9.5.1.14)	gas puff; vector(nneut); Time-dependent. [particles/s]
wall_inventory	vecflt_type (7.9.5.1.14)	wall inventory; vector(nneut); Time-dependent. [particles]
recycling_coefficient	vecflt_type (7.9.5.1.14)	Recycling coefficient. Vector(nneut) Time-dependent.
wall_temperature	float (7.9.5.1.2)	Wall temperature [K]. Time-dependent. Scalar
power_from_plasma	float (7.9.5.1.2)	Power flowing from the plasma to the wall [W]. Time-dependent. Scalar

member	type	description
power_to_cooling	float (7.9.5.1.2)	Power to cooling systems [W]. Time-dependent. Scalar
plasma	wall_wall0d_plasma (7.9.5.1.444)	NO DOCS

Type of: wall:wall0d (2579)

7.9.5.1.444 wall_wall0d_plasma

member	type	description
species_index	matint_type (7.9.5.1.13)	Index of species into wall/compositions; matrix(nspecies,3); 1st element indicates {1: main ions; 2:impurities; 3:neutrals; 4:edge species); 2nd element indicates index into that array; 3rd index indicates charge state if 1st element points to inpurities or neutral type if 1st element points to neutrals;
flux	vecflt_type (7.9.5.1.14)	flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [particles/s]
energy	vecflt_type (7.9.5.1.14)	energy flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [W]

Type of: wall_wall0d:plasma (2958)

7.9.5.1.445 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.5.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.5.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.5.1.15)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.5.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.5.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.5.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.5.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.5.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.5.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.5.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.5.1.14)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.5.1.14)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (2778)

7.9.5.1.446 waves_global_param

Global wave deposition parameters

member	type	description
frequency	float (7.9.5.1.2)	Wave frequency [Hz]; Time-dependent, floating
name	string (7.9.5.1.4)	Antenna name, String
type	string (7.9.5.1.4)	Wave type (LH, EC, IC, ...), String
ntor	vecint_type (7.9.5.1.15)	Toroidal mode numbers; Time-dependent; Vector (ntor)
f_assumption	vecint_type (7.9.5.1.15)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
power_tot	float (7.9.5.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.5.1.14)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_i	vecflt_type (7.9.5.1.14)	Wave power absorbed by an ion species [W]; Time-dependent; Vector (nion)
pow_e	float (7.9.5.1.2)	Wave power absorbed by the electrons [W]; Time-dependent; Float
pow_ntor_i	matflt_type (7.9.5.1.12)	Wave power absorbed by an ion species per toroidal mode number [W]; Time-dependent; Matrix (ntor,nion)

member	type	description
pow_ntor_e	vecflt_type (7.9.5.1.14)	Wave power absorbed by the electrons per toroidal mode number [W]; Time-dependent; Vector (ntor)
cur_tor	float (7.9.5.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.5.1.14)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
code_type	integer (7.9.5.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
toroid_field	b0r0 (7.9.5.1.73)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of parallel current densities in this CPO; Float.

Type of: coherentwave:global_param (2600)

7.9.5.1.447 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor_norm	vecflt_type (7.9.5.1.14)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.5.1.14)	Toroidal flux coordinate at the grid points for 1D profiles [m]; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.5.1.14)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (2600)

7.9.5.1.448 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.5.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.5.1.12)	Normalised toroidal flux coordinate at the grid points for the 2D profiles; Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.5.1.12)	Toroidal flux coordinate at the grid points for the 2D profiles [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.5.1.12)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.5.1.12)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.5.1.12)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.5.1.12)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.5.1.411)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (2600)

7.9.5.1.449 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.5.1.14)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.5.1.14)	Flux surface averaged absorbed wave power density on electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.5.1.12)	Flux surface averaged absorbed wave power density on ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_ntor	matflt_type (7.9.5.1.12)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.5.1.12)	Flux surface averaged absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.5.1.6)	Flux surface averaged power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
curd_tor	vecflt_type (7.9.5.1.14)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)

member	type	description
curd_torntor	matflt_type (7.9.5.1.12)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.5.1.14)	Volume integrated absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.5.1.14)	Volume integrated absorbed wave power density on electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.5.1.12)	Volume integrated absorbed wave power density on ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_ntor	array3dflt_type (7.9.5.1.6)	Volume integrated power density for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.5.1.12)	Volume integrated power density for each toroidal mode number on the electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.5.1.6)	Volume integrated power density for each toroidal mode number on each ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
curd_par	vecflt_type (7.9.5.1.14)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.5.1.12)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 is in global_param/toroid_field/b0, from stand alone calculation (not consistent with other sources) ; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.5.1.14)	Wave driven toroidal current inside a flux surface from stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.5.1.12)	Wave driven toroidal current inside a flux surface for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (2600)

7.9.5.1.450 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.5.1.12)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.5.1.12)	Absorbed wave power density on electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.5.1.6)	Absorbed wave power density on ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_ntor	array3dflt_type (7.9.5.1.6)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.5.1.6)	Absorbed power density for each toroidal mode number on electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.5.1.8)	Absorbed power density for each toroidal mode number on each ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_iharm	array5dflt_type (7.9.5.1.9)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (2600)

7.9.5.1.451 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.5.1.14)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.5.1.14)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.5.1.14)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.5.1.14)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.5.1.14)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (2590)

7.9.5.1.452 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.5.1.14)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.5.1.14)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.5.1.14)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent
npar	vecflt_type (7.9.5.1.14)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.5.1.14)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.5.1.14)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.5.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (2590)

7.9.5.1.453 weighted_markers

Array of NMARK weighted markers in NDIM dimensions

member	type	description
variable_ids(:)	identifier (7.9.5.1.231)	Integer identification of the variables stored in the coord matrix. Vector(NDIM)
coord	matflt_type (7.9.5.1.12)	Coordinates of the markers. The coordinates used is specified in variable_ids. Time-dependent; Float(NMARK,NDIM)
weight	vecflt_type (7.9.5.1.14)	Weight of the marker; number of real particles represented by the marker. Time-dependent; Float(NMARK)

Type of: dist_func:markers (2662) I distsource_source:markers (2688)

7.9.5.1.454 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.5.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.5.1.4)	Name of the device
shot	integer (7.9.5.1.3)	Shot number
run	integer (7.9.5.1.3)	Run number
occurrence	integer (7.9.5.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (2653)

7.9.5.1.455 width

Angular width of each in the poloidal and toroidal direction;

member	type	description
dtheta	vecflt_type (7.9.5.1.14)	Angular poloidal width of holes; Vector (n_holes)
phi	vecflt_type (7.9.5.1.14)	Angular toroidal width of holes; Vector (n_holes)

Type of: holes:width (2745)

7.9.5.1.456 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.5.1.342)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.5.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.5.1.14)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.5.1.14)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.5.1.14)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)

member	type	description
chi2	vecflt_type (7.9.5.1.14)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (2706) itmtypes [563]

7.9.5.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.5.2.1 Fortran

7.9.5.2.2 amns

datainfo (2535)	amns%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	amns%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	amns%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	amns%datainfo%source (string) (7.9.5.1.4)
comment (2653)	amns%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	amns%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	amns%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	amns%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	amns%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	amns%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	amns%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	amns%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	amns%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	amns%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	amns%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	amns%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	amns%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	amns%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	amns%datainfo%putinfo%rights (string) (7.9.5.1.4)
version (2535)	amns%version (string) (7.9.5.1.4)
source (2535)	amns%source (string) (7.9.5.1.4)
zn (2535)	amns%zn (integer) (7.9.5.1.3)
amn (2535)	amns%amn (float) (7.9.5.1.2)
zion (2535)	amns%zion (vecint_type) (7.9.5.1.15)
state_label (2535)	amns%state_label (vecstring_type) (7.9.5.1.16)
bundled (2535)	amns%bundled (integer) (7.9.5.1.3)
proc_label (2535)	amns%proc_label (vecstring_type) (7.9.5.1.16)
tables (2535)	amns%tables(:) (tables) (7.9.5.1.407)
ndim (2922)	amns%tables(:)%ndim (integer) (7.9.5.1.3)
coord_index (2922)	amns%tables(:)%coord_index (integer) (7.9.5.1.3)
result_label (2922)	amns%tables(:)%result_label (string) (7.9.5.1.4)
result_unit (2922)	amns%tables(:)%result_unit (string) (7.9.5.1.4)
result_trans (2922)	amns%tables(:)%result_trans (integer) (7.9.5.1.3)
table (2922)	amns%tables(:)%table(:) (table) (7.9.5.1.406)
table_0d (2921)	amns%tables(:)%table(:)%table_0d (float) (7.9.5.1.2)
table_1d (2921)	amns%tables(:)%table(:)%table_1d (vecflt_type) (7.9.5.1.14)
table_2d (2921)	amns%tables(:)%table(:)%table_2d (matflt_type) (7.9.5.1.12)
table_3d (2921)	amns%tables(:)%table(:)%table_3d (array3dflt_type) (7.9.5.1.6)
table_4d (2921)	amns%tables(:)%table(:)%table_4d (array4dflt_type) (7.9.5.1.8)
table_5d (2921)	amns%tables(:)%table(:)%table_5d (array5dflt_type) (7.9.5.1.9)
table_6d (2921)	amns%tables(:)%table(:)%table_6d (array6dflt_type) (7.9.5.1.10)
data_source (2922)	amns%tables(:)%data_source (string) (7.9.5.1.4)
data_provide (2922)	amns%tables(:)%data_provide (string) (7.9.5.1.4)
data_citation (2922)	amns%tables(:)%data_citation (string) (7.9.5.1.4)
tables_coord (2535)	amns%tables_coord(:) (tables_coord) (7.9.5.1.408)
coords (2923)	amns%tables_coord(:)%coords(:) (coords) (7.9.5.1.109)

[563] https://www.efda-itm.eu/ITM/html/itmtypes__4.10a.3.html

coord (2624)	amns%tables_coord(:)%coords(:)%coord (vecflt_type) (7.9.5.1.14)
coord_label (2624)	amns%tables_coord(:)%coords(:)%coord_label (vecstring_type) (7.9.5.1.16)
extrap_type (2624)	amns%tables_coord(:)%coords(:)%extrap_type (vecint_type) (7.9.5.1.15)
interp_type (2624)	amns%tables_coord(:)%coords(:)%interp_type (integer) (7.9.5.1.3)
label (2624)	amns%tables_coord(:)%coords(:)%label (string) (7.9.5.1.4)
unit (2624)	amns%tables_coord(:)%coords(:)%unit (string) (7.9.5.1.4)
transform (2624)	amns%tables_coord(:)%coords(:)%transform (integer) (7.9.5.1.3)
spacing (2624)	amns%tables_coord(:)%coords(:)%spacing (integer) (7.9.5.1.3)
version_ind (2535)	amns%version_ind(:) (version_ind) (7.9.5.1.433)
description (2948)	amns%version_ind(:)%description (vecstring_type) (7.9.5.1.16)
releasedate (2948)	amns%version_ind(:)%releasedate (string) (7.9.5.1.4)
data_release (2948)	amns%version_ind(:)%data_release(:) (data_release) (7.9.5.1.137)
shot (2652)	amns%version_ind(:)%data_release(:)%shot (integer) (7.9.5.1.3)
run (2652)	amns%version_ind(:)%data_release(:)%run (integer) (7.9.5.1.3)
description (2652)	amns%version_ind(:)%data_release(:)%description (vecstring_type) (7.9.5.1.16)

7.9.5.2.3 antennas

datainfo (2536)	antennas%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	antennas%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	antennas%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	antennas%datainfo%source (string) (7.9.5.1.4)
comment (2653)	antennas%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	antennas%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	antennas%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	antennas%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	antennas%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	antennas%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	antennas%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	antennas%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	antennas%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	antennas%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	antennas%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	antennas%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	antennas%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	antennas%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	antennas%datainfo%putinfo%rights (string) (7.9.5.1.4)
antenna_ec (2536)	antennas%antenna_ec(:) (antenna_ec) (7.9.5.1.67)
name (2582)	antennas%antenna_ec(:)%name (string) (7.9.5.1.4)
frequency (2582)	antennas%antenna_ec(:)%frequency (float) (7.9.5.1.2)
power (2582)	antennas%antenna_ec(:)%power (exp0D) (7.9.5.1.197)
value (2712)	antennas%antenna_ec(:)%power%value (float) (7.9.5.1.2)
abserror (2712)	antennas%antenna_ec(:)%power%abserror (float) (7.9.5.1.2)
relerror (2712)	antennas%antenna_ec(:)%power%relerror (float) (7.9.5.1.2)
mode (2582)	antennas%antenna_ec(:)%mode (integer) (7.9.5.1.3)
position (2582)	antennas%antenna_ec(:)%position (rzphi0D) (7.9.5.1.347)
r (2862)	antennas%antenna_ec(:)%position%r (float) (7.9.5.1.2)
z (2862)	antennas%antenna_ec(:)%position%z (float) (7.9.5.1.2)
phi (2862)	antennas%antenna_ec(:)%position%phi (float) (7.9.5.1.2)
launchangles (2582)	antennas%antenna_ec(:)%launchangles (launchangles) (7.9.5.1.241)
alpha (2756)	antennas%antenna_ec(:)%launchangles%alpha (float) (7.9.5.1.2)
beta (2756)	antennas%antenna_ec(:)%launchangles%beta (float) (7.9.5.1.2)
beam (2582)	antennas%antenna_ec(:)%beam (rfbeam) (7.9.5.1.340)
spot (2855)	antennas%antenna_ec(:)%beam%spot (spot) (7.9.5.1.397)
size (2912)	antennas%antenna_ec(:)%beam%spot%size (vecflt_type) (7.9.5.1.14)
angle (2912)	antennas%antenna_ec(:)%beam%spot%angle (float) (7.9.5.1.2)
phaseellipse (2855)	antennas%antenna_ec(:)%beam%phaseellipse (phaseellipse) (7.9.5.1.296)
invcurvrad (2811)	antennas%antenna_ec(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.5.1.14)
angle (2811)	antennas%antenna_ec(:)%beam%phaseellipse%angle (float) (7.9.5.1.2)
codeparam (2582)	antennas%antenna_ec(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	antennas%antenna_ec(:)%codeparam%codename (string) (7.9.5.1.4)

codeversion (2598)	antennas%antenna_ec(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	antennas%antenna_ec(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	antennas%antenna_ec(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	antennas%antenna_ec(:)%codeparam%output_flag (integer) (7.9.5.1.3)
antenna_ic (2536)	antennas%antenna_ic(:) (antenna_ic) (7.9.5.1.68)
name (2583)	antennas%antenna_ic(:)%name (string) (7.9.5.1.4)
frequency (2583)	antennas%antenna_ic(:)%frequency (exp0D) (7.9.5.1.197)
value (2712)	antennas%antenna_ic(:)%frequency%value (float) (7.9.5.1.2)
abserror (2712)	antennas%antenna_ic(:)%frequency%abserror (float) (7.9.5.1.2)
relerror (2712)	antennas%antenna_ic(:)%frequency%relerror (float) (7.9.5.1.2)
power (2583)	antennas%antenna_ic(:)%power (exp0D) (7.9.5.1.197)
value (2712)	antennas%antenna_ic(:)%power%value (float) (7.9.5.1.2)
abserror (2712)	antennas%antenna_ic(:)%power%abserror (float) (7.9.5.1.2)
relerror (2712)	antennas%antenna_ic(:)%power%relerror (float) (7.9.5.1.2)
setup (2583)	antennas%antenna_ic(:)%setup (antennaic_setup) (7.9.5.1.70)
straps (2585)	antennas%antenna_ic(:)%setup%straps(:) (straps) (7.9.5.1.402)
phase (2917)	antennas%antenna_ic(:)%setup%straps(:)%phase (exp0D) (7.9.5.1.197)
value (2712)	antennas%antenna_ic(:)%setup%straps(:)%phase%value (float) (7.9.5.1.2)
abserror (2712)	antennas%antenna_ic(:)%setup%straps(:)%phase%abserror (float) (7.9.5.1.2)
relerror (2712)	antennas%antenna_ic(:)%setup%straps(:)%phase%relerror (float) (7.9.5.1.2)
phi_centre (2917)	antennas%antenna_ic(:)%setup%straps(:)%phi_centre (float) (7.9.5.1.2)
width (2917)	antennas%antenna_ic(:)%setup%straps(:)%width (float) (7.9.5.1.2)
dist2wall (2917)	antennas%antenna_ic(:)%setup%straps(:)%dist2wall (float) (7.9.5.1.2)
coord_strap (2917)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap (rz1D) (7.9.5.1.342)
r (2857)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%r (vecflt_type) (7.9.5.1.14)
z (2857)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%z (vecflt_type) (7.9.5.1.14)
codeparam (2583)	antennas%antenna_ic(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	antennas%antenna_ic(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	antennas%antenna_ic(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	antennas%antenna_ic(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	antennas%antenna_ic(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	antennas%antenna_ic(:)%codeparam%output_flag (integer) (7.9.5.1.3)
antenna_lh (2536)	antennas%antenna_lh(:) (antenna_lh) (7.9.5.1.69)
name (2584)	antennas%antenna_lh(:)%name (string) (7.9.5.1.4)
frequency (2584)	antennas%antenna_lh(:)%frequency (float) (7.9.5.1.2)
power (2584)	antennas%antenna_lh(:)%power (exp0D) (7.9.5.1.197)
value (2712)	antennas%antenna_lh(:)%power%value (float) (7.9.5.1.2)
abserror (2712)	antennas%antenna_lh(:)%power%abserror (float) (7.9.5.1.2)
relerror (2712)	antennas%antenna_lh(:)%power%relerror (float) (7.9.5.1.2)
n_par (2584)	antennas%antenna_lh(:)%n_par (float) (7.9.5.1.2)
position (2584)	antennas%antenna_lh(:)%position (rzphi0D) (7.9.5.1.347)
r (2862)	antennas%antenna_lh(:)%position%r (float) (7.9.5.1.2)
z (2862)	antennas%antenna_lh(:)%position%z (float) (7.9.5.1.2)
phi (2862)	antennas%antenna_lh(:)%position%phi (float) (7.9.5.1.2)
setup (2584)	antennas%antenna_lh(:)%setup (antennalh_setup) (7.9.5.1.71)
modules (2586)	antennas%antenna_lh(:)%setup%modules (modules) (7.9.5.1.263)
nma_theta (2778)	antennas%antenna_lh(:)%setup%modules%nma_theta (integer) (7.9.5.1.3)
nma_phi (2778)	antennas%antenna_lh(:)%setup%modules%nma_phi (integer) (7.9.5.1.3)
ima_theta (2778)	antennas%antenna_lh(:)%setup%modules%ima_theta (vecint_type) (7.9.5.1.15)
ima_phi (2778)	antennas%antenna_lh(:)%setup%modules%ima_phi (vecint_type) (7.9.5.1.15)
sm_theta (2778)	antennas%antenna_lh(:)%setup%modules%sm_theta (float) (7.9.5.1.2)
amplitude (2778)	antennas%antenna_lh(:)%setup%modules%amplitude (exp1D) (7.9.5.1.198)
value (2713)	antennas%antenna_lh(:)%setup%modules%amplitude%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	antennas%antenna_lh(:)%setup%modules%amplitude%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	antennas%antenna_lh(:)%setup%modules%amplitude%relerror (vecflt_type) (7.9.5.1.14)
phase (2778)	antennas%antenna_lh(:)%setup%modules%phase (exp1D) (7.9.5.1.198)
value (2713)	antennas%antenna_lh(:)%setup%modules%phase%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	antennas%antenna_lh(:)%setup%modules%phase%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	antennas%antenna_lh(:)%setup%modules%phase%relerror (vecflt_type) (7.9.5.1.14)
waveguides (2778)	antennas%antenna_lh(:)%setup%modules%waveguides (waveguides) (7.9.5.1.445)
nwm_theta (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_theta (integer) (7.9.5.1.3)

nwm_phi (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_phi (integer) (7.9.5.1.3)
mask (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%mask (vecint_type) (7.9.5.1.15)
npwbm_phi (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%npwbm_phi (integer) (7.9.5.1.3)
npwe_phi (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%npwe_phi (integer) (7.9.5.1.3)
sw_theta (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%sw_theta (float) (7.9.5.1.2)
hw_theta (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%hw_theta (float) (7.9.5.1.2)
bwa (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%bwa (float) (7.9.5.1.2)
biwp (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%biwp (float) (7.9.5.1.2)
bewp (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%bewp (float) (7.9.5.1.2)
e_phi (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%e_phi (vecflt_type) (7.9.5.1.14)
scl (2960)	antennas%antenna_lh(:)%setup%modules%waveguides%scl (vecflt_type) (7.9.5.1.14)
plasmaedge (2584)	antennas%antenna_lh(:)%plasmaedge (plasmaedge) (7.9.5.1.299)
npoints (2814)	antennas%antenna_lh(:)%plasmaedge%npoints (integer) (7.9.5.1.3)
distance (2814)	antennas%antenna_lh(:)%plasmaedge%distance (vecflt_type) (7.9.5.1.14)
density (2814)	antennas%antenna_lh(:)%plasmaedge%density (vecflt_type) (7.9.5.1.14)
beam (2584)	antennas%antenna_lh(:)%beam (rfbeam) (7.9.5.1.340)
spot (2855)	antennas%antenna_lh(:)%beam%spot (spot) (7.9.5.1.397)
size (2912)	antennas%antenna_lh(:)%beam%spot%size (vecflt_type) (7.9.5.1.14)
angle (2912)	antennas%antenna_lh(:)%beam%spot%angle (float) (7.9.5.1.2)
phaseellipse (2855)	antennas%antenna_lh(:)%beam%phaseellipse (phaseellipse) (7.9.5.1.296)
invcurvrad (2811)	antennas%antenna_lh(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.5.1.14)
angle (2811)	antennas%antenna_lh(:)%beam%phaseellipse%angle (float) (7.9.5.1.2)
codeparam (2584)	antennas%antenna_lh(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	antennas%antenna_lh(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	antennas%antenna_lh(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	antennas%antenna_lh(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	antennas%antenna_lh(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	antennas%antenna_lh(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2536)	antennas%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	antennas%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	antennas%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	antennas%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	antennas%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	antennas%codeparam%output_flag (integer) (7.9.5.1.3)
time (2536)	antennas%time (float) (7.9.5.1.2)

7.9.5.2.4 compositionc

datainfo (2537)	compositionc%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	compositionc%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	compositionc%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	compositionc%datainfo%source (string) (7.9.5.1.4)
comment (2653)	compositionc%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	compositionc%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	compositionc%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	compositionc%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	compositionc%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	compositionc%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	compositionc%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	compositionc%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	compositionc%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	compositionc%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	compositionc%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	compositionc%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	compositionc%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	compositionc%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	compositionc%datainfo%putinfo%rights (string) (7.9.5.1.4)
compositions (2537)	compositionc%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	compositionc%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	compositionc%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	compositionc%compositions%nuclei(:)%amn (float) (7.9.5.1.2)

label (2791)	compositionc%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	compositionc%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	compositionc%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	compositionc%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	compositionc%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	compositionc%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	compositionc%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	compositionc%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	compositionc%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	compositionc%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	compositionc%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	compositionc%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	compositionc%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	compositionc%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	compositionc%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	compositionc%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	compositionc%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	compositionc%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	compositionc%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	compositionc%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	compositionc%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	compositionc%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	compositionc%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	compositionc%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	compositionc%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	compositionc%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	compositionc%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	compositionc%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	compositionc%compositions%signature%description (string) (7.9.5.1.4)

7.9.5.2.5 coredelta

datainfo (2538)	coredelta%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	coredelta%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coredelta%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coredelta%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coredelta%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coredelta%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coredelta%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coredelta%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coredelta%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coredelta%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coredelta%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coredelta%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coredelta%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coredelta%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coredelta%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coredelta%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coredelta%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coredelta%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coredelta%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2538)	coredelta%composition (composition) (7.9.5.1.101)
amn (2616)	coredelta%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	coredelta%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	coredelta%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	coredelta%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	coredelta%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2538)	coredelta%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coredelta%desc_impur%amn (vecflt_type) (7.9.5.1.14)

zn (2656)	coredelta%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coredelta%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coredelta%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coredelta%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coredelta%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coredelta%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2538)	coredelta%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	coredelta%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coredelta%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	coredelta%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coredelta%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coredelta%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coredelta%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coredelta%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coredelta%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	coredelta%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coredelta%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coredelta%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coredelta%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coredelta%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coredelta%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coredelta%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coredelta%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coredelta%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coredelta%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coredelta%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coredelta%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coredelta%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coredelta%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coredelta%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coredelta%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coredelta%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coredelta%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coredelta%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coredelta%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coredelta%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coredelta%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coredelta%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coredelta%compositions%signature%description (string) (7.9.5.1.4)
values (2538)	coredelta%values(:) (coredelta_values) (7.9.5.1.110)
deltaid (2625)	coredelta%values(:)%deltaid (identifier) (7.9.5.1.231)
id (2746)	coredelta%values(:)%deltaid%id (string) (7.9.5.1.4)
flag (2746)	coredelta%values(:)%deltaid%flag (integer) (7.9.5.1.3)
description (2746)	coredelta%values(:)%deltaid%description (string) (7.9.5.1.4)
rho_tor (2625)	coredelta%values(:)%rho_tor (vecflt_type) (7.9.5.1.14)
rho_tor_norm (2625)	coredelta%values(:)%rho_tor_norm (vecflt_type) (7.9.5.1.14)
delta_psi (2625)	coredelta%values(:)%delta_psi (vecflt_type) (7.9.5.1.14)
delta_te (2625)	coredelta%values(:)%delta_te (vecflt_type) (7.9.5.1.14)
delta_ti (2625)	coredelta%values(:)%delta_ti (matflt_type) (7.9.5.1.12)
delta_tz (2625)	coredelta%values(:)%delta_tz (array3dflt_type) (7.9.5.1.6)
delta_ne (2625)	coredelta%values(:)%delta_ne (vecflt_type) (7.9.5.1.14)
delta_ni (2625)	coredelta%values(:)%delta_ni (matflt_type) (7.9.5.1.12)
delta_nz (2625)	coredelta%values(:)%delta_nz (array3dflt_type) (7.9.5.1.6)
delta_vtor (2625)	coredelta%values(:)%delta_vtor (matflt_type) (7.9.5.1.12)
codeparam (2625)	coredelta%values(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coredelta%values(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coredelta%values(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coredelta%values(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coredelta%values(:)%codeparam%output_diag (string) (7.9.5.1.4)

output_flag (2598)	coredelta%values(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2538)	coredelta%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coredelta%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coredelta%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coredelta%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coredelta%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coredelta%codeparam%output_flag (integer) (7.9.5.1.3)
time (2538)	coredelta%time (float) (7.9.5.1.2)

7.9.5.2.6 coreimpur

datainfo (2539)	coreimpur%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	coreimpur%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coreimpur%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coreimpur%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coreimpur%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coreimpur%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coreimpur%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coreimpur%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coreimpur%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coreimpur%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coreimpur%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coreimpur%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coreimpur%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coreimpur%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coreimpur%datainfo%putinfo%rights (string) (7.9.5.1.4)
rho_tor_norm (2539)	coreimpur%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2539)	coreimpur%rho_tor (vecflt_type) (7.9.5.1.14)
source (2539)	coreimpur%source (vecstring_type) (7.9.5.1.16)
flag (2539)	coreimpur%flag (vecint_type) (7.9.5.1.15)
desc_impur (2539)	coreimpur%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coreimpur%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	coreimpur%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coreimpur%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coreimpur%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coreimpur%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2539)	coreimpur%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	coreimpur%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coreimpur%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	coreimpur%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coreimpur%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coreimpur%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coreimpur%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coreimpur%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coreimpur%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	coreimpur%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coreimpur%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coreimpur%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coreimpur%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coreimpur%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coreimpur%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coreimpur%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coreimpur%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coreimpur%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)

neutcomp (2619)	coreimpur%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coreimpur%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coreimpur%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coreimpur%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coreimpur%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coreimpur%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coreimpur%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coreimpur%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coreimpur%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coreimpur%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coreimpur%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coreimpur%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coreimpur%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coreimpur%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coreimpur%compositions%signature%description (string) (7.9.5.1.4)
atomic_data (2539)	coreimpur%atomic_data (vecstring_type) (7.9.5.1.16)
impurity (2539)	coreimpur%impurity(:) (impurity_type) (7.9.5.1.234)
z (2749)	coreimpur%impurity(:)%z (matflt_type) (7.9.5.1.12)
zsq (2749)	coreimpur%impurity(:)%zsq (matflt_type) (7.9.5.1.12)
nz (2749)	coreimpur%impurity(:)%nz (matflt_type) (7.9.5.1.12)
source_term (2749)	coreimpur%impurity(:)%source_term (sourceimp) (7.9.5.1.391)
value (2906)	coreimpur%impurity(:)%source_term%value (matflt_type) (7.9.5.1.12)
integral (2906)	coreimpur%impurity(:)%source_term%integral (matflt_type) (7.9.5.1.12)
source (2906)	coreimpur%impurity(:)%source_term%source (vecstring_type) (7.9.5.1.16)
boundary (2749)	coreimpur%impurity(:)%boundary (boundaryimp) (7.9.5.1.79)
value (2594)	coreimpur%impurity(:)%boundary%value (matflt_type) (7.9.5.1.12)
source (2594)	coreimpur%impurity(:)%boundary%source (string) (7.9.5.1.4)
type (2594)	coreimpur%impurity(:)%boundary%type (vecint_type) (7.9.5.1.15)
rho (2594)	coreimpur%impurity(:)%boundary%rho (vecflt_type) (7.9.5.1.14)
codeparam (2594)	coreimpur%impurity(:)%boundary%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreimpur%impurity(:)%boundary%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreimpur%impurity(:)%boundary%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreimpur%impurity(:)%boundary%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreimpur%impurity(:)%boundary%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreimpur%impurity(:)%boundary%codeparam%output_flag (integer) (7.9.5.1.3)
transp_coef (2749)	coreimpur%impurity(:)%transp_coef (coretransimp) (7.9.5.1.131)
diff (2646)	coreimpur%impurity(:)%transp_coef%diff (matflt_type) (7.9.5.1.12)
vconv (2646)	coreimpur%impurity(:)%transp_coef%vconv (matflt_type) (7.9.5.1.12)
source (2646)	coreimpur%impurity(:)%transp_coef%source (vecstring_type) (7.9.5.1.16)
flux (2749)	coreimpur%impurity(:)%flux (fluximp) (7.9.5.1.205)
flux_dv (2720)	coreimpur%impurity(:)%flux%flux_dv (matflt_type) (7.9.5.1.12)
flux_interp (2720)	coreimpur%impurity(:)%flux%flux_interp (matflt_type) (7.9.5.1.12)
time_deriv (2749)	coreimpur%impurity(:)%time_deriv (matflt_type) (7.9.5.1.12)
diagnostic (2749)	coreimpur%impurity(:)%diagnostic (coreimpurediag_type) (7.9.5.1.122)
radiation (2637)	coreimpur%impurity(:)%diagnostic%radiation (coreimpurediag_radiation) (7.9.5.1.119)
line_rad (2634)	coreimpur%impurity(:)%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.5.1.12)
brem_radrec (2634)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.5.1.12)
sum (2634)	coreimpur%impurity(:)%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%impurity(:)%diagnostic%radiation%sum%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%radiation%sum%integral (matflt_type) (7.9.5.1.12)
energy (2637)	coreimpur%impurity(:)%diagnostic%energy (coreimpurediag_energy) (7.9.5.1.118)
ionization (2633)	coreimpur%impurity(:)%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.5.1.123)

profile (2638)	coreimpur%impurity(:)%diagnostic%energy%ionization%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%energy%ionization%integral (matflt_type) (7.9.5.1.12)
recombin (2633)	coreimpur%impurity(:)%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%impurity(:)%diagnostic%energy%recombin%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%energy%recombin%integral (matflt_type) (7.9.5.1.12)
sum (2633)	coreimpur%impurity(:)%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%impurity(:)%diagnostic%energy%sum%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%impurity(:)%diagnostic%energy%sum%integral (matflt_type) (7.9.5.1.12)
diagnostic (2539)	coreimpur%diagnostic (coreimpurediag_type) (7.9.5.1.122)
radiation (2637)	coreimpur%diagnostic%radiation (coreimpurediag_radiation) (7.9.5.1.119)
line_rad (2634)	coreimpur%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.5.1.12)
brem_radrec (2634)	coreimpur%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.5.1.12)
sum (2634)	coreimpur%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%radiation%sum%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%radiation%sum%integral (matflt_type) (7.9.5.1.12)
energy (2637)	coreimpur%diagnostic%energy (coreimpurediag_energy) (7.9.5.1.118)
ionization (2633)	coreimpur%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%energy%ionization%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%energy%ionization%integral (matflt_type) (7.9.5.1.12)
recombin (2633)	coreimpur%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%energy%recombin%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%energy%recombin%integral (matflt_type) (7.9.5.1.12)
sum (2633)	coreimpur%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.5.1.123)
profile (2638)	coreimpur%diagnostic%energy%sum%profile (matflt_type) (7.9.5.1.12)
integral (2638)	coreimpur%diagnostic%energy%sum%integral (matflt_type) (7.9.5.1.12)
diagnosticsum (2539)	coreimpur%diagnosticsum (coreimpurediag_sum) (7.9.5.1.120)
radiation (2635)	coreimpur%diagnosticsum%radiation (coreimpurdiag_sum_radiation) (7.9.5.1.117)
line_rad (2632)	coreimpur%diagnosticsum%radiation%line_rad (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%radiation%line_rad%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%radiation%line_rad%integral (vecflt_type) (7.9.5.1.14)
brem_radrec (2632)	coreimpur%diagnosticsum%radiation%brem_radrec (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%radiation%brem_radrec%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%radiation%brem_radrec%integral (vecflt_type) (7.9.5.1.14)
sum (2632)	coreimpur%diagnosticsum%radiation%sum (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%radiation%sum%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%radiation%sum%integral (vecflt_type) (7.9.5.1.14)
energy (2635)	coreimpur%diagnosticsum%energy (coreimpurediag_sum_energy) (7.9.5.1.121)
ionization (2636)	coreimpur%diagnosticsum%energy%ionization (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%energy%ionization%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%energy%ionization%integral (vecflt_type) (7.9.5.1.14)
recombin (2636)	coreimpur%diagnosticsum%energy%recombin (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%energy%recombin%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%energy%recombin%integral (vecflt_type) (7.9.5.1.14)
sum (2636)	coreimpur%diagnosticsum%energy%sum (coreimpurediagsum_type) (7.9.5.1.124)
profile (2639)	coreimpur%diagnosticsum%energy%sum%profile (vecflt_type) (7.9.5.1.14)
integral (2639)	coreimpur%diagnosticsum%energy%sum%integral (vecflt_type) (7.9.5.1.14)
codeparam (2539)	coreimpur%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreimpur%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreimpur%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreimpur%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreimpur%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreimpur%codeparam%output_flag (integer) (7.9.5.1.3)
time (2539)	coreimpur%time (float) (7.9.5.1.2)

7.9.5.2.7 coreneutrals

datainfo (2540)	coreneutrals%datainfo (datainfo) (7.9.5.1.138)

dataprovider (2653)	coreneutrals%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coreneutrals%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coreneutrals%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coreneutrals%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coreneutrals%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coreneutrals%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coreneutrals%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coreneutrals%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coreneutrals%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coreneutrals%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coreneutrals%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coreneutrals%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coreneutrals%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coreneutrals%datainfo%putinfo%rights (string) (7.9.5.1.4)
rho_tor (2540)	coreneutrals%rho_tor (vecflt_type) (7.9.5.1.14)
rho_tor_norm (2540)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.5.1.14)
neutcompo (2540)	coreneutrals%neutcompo (composition_neutrals) (7.9.5.1.102)
atomlist (2617)	coreneutrals%neutcompo%atomlist(:) (coreneutrals_atomlist) (7.9.5.1.125)
amn (2640)	coreneutrals%neutcompo%atomlist(:)%amn (float) (7.9.5.1.2)
zn (2640)	coreneutrals%neutcompo%atomlist(:)%zn (float) (7.9.5.1.2)
ionimptype (2640)	coreneutrals%neutcompo%atomlist(:)%ionimptype (identifier) (7.9.5.1.231)
id (2746)	coreneutrals%neutcompo%atomlist(:)%ionimptype%id (string) (7.9.5.1.4)
flag (2746)	coreneutrals%neutcompo%atomlist(:)%ionimptype%flag (integer) (7.9.5.1.3)
description (2746)	coreneutrals%neutcompo%atomlist(:)%ionimptype%description (string) (7.9.5.1.4)
ionimpindex (2640)	coreneutrals%neutcompo%atomlist(:)%ionimpindex (integer) (7.9.5.1.3)
neutral (2617)	coreneutrals%neutcompo%neutral(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coreneutrals%neutcompo%neutral(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coreneutrals%neutcompo%neutral(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coreneutrals%neutcompo%neutral(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coreneutrals%neutcompo%neutral(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coreneutrals%neutcompo%neutral(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coreneutrals%neutcompo%neutral(:)%label (string) (7.9.5.1.4)
composition (2540)	coreneutrals%composition (composition) (7.9.5.1.101)
amn (2616)	coreneutrals%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	coreneutrals%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	coreneutrals%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	coreneutrals%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	coreneutrals%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2540)	coreneutrals%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coreneutrals%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	coreneutrals%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coreneutrals%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coreneutrals%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coreneutrals%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coreneutrals%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coreneutrals%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2540)	coreneutrals%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	coreneutrals%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coreneutrals%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	coreneutrals%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coreneutrals%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coreneutrals%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coreneutrals%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coreneutrals%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coreneutrals%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)

label (2751)	coreneutrals%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coreneutrals%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coreneutrals%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coreneutrals%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coreneutrals%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coreneutrals%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coreneutrals%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coreneutrals%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coreneutrals%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coreneutrals%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coreneutrals%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coreneutrals%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coreneutrals%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coreneutrals%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coreneutrals%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coreneutrals%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coreneutrals%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coreneutrals%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coreneutrals%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coreneutrals%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coreneutrals%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coreneutrals%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coreneutrals%compositions%signature%description (string) (7.9.5.1.4)
profiles (2540)	coreneutrals%profiles(:) (neutral_complex_type) (7.9.5.1.274)
neutraltype (2789)	coreneutrals%profiles(:)%neutraltype(:) (coreneutrals_neutraltype) (7.9.5.1.126)
n0 (2641)	coreneutrals%profiles(:)%neutraltype(:)%n0 (corefieldneutral) (7.9.5.1.113)
value (2628)	coreneutrals%profiles(:)%neutraltype(:)%n0%value (vecflt_type) (7.9.5.1.14)
flux (2628)	coreneutrals%profiles(:)%neutraltype(:)%n0%flux (vecflt_type) (7.9.5.1.14)
boundary (2628)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary (boundary_neutrals) (7.9.5.1.77)
value (2592)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%value (vecflt_type) (7.9.5.1.14)
type (2592)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%type (integer) (7.9.5.1.3)
rho_tor (2592)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%rho_tor (float) (7.9.5.1.2)
t0 (2641)	coreneutrals%profiles(:)%neutraltype(:)%t0 (corefieldneutrale) (7.9.5.1.114)
value (2629)	coreneutrals%profiles(:)%neutraltype(:)%t0%value (vecflt_type) (7.9.5.1.14)
flux (2629)	coreneutrals%profiles(:)%neutraltype(:)%t0%flux (vecflt_type) (7.9.5.1.14)
boundary (2629)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary (boundary_neutrals) (7.9.5.1.77)
value (2592)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%value (vecflt_type) (7.9.5.1.14)
type (2592)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%type (integer) (7.9.5.1.3)
rho_tor (2592)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%rho_tor (float) (7.9.5.1.2)
v0 (2641)	coreneutrals%profiles(:)%neutraltype(:)%v0 (corefieldneutralv0) (7.9.5.1.116)
toroidal (2631)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal (corefieldneutralv) (7.9.5.1.115)
value (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%value (vecflt_type) (7.9.5.1.14)
boundary (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary (boundary_neutrals) (7.9.5.1.77)
value (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%value (vecflt_type) (7.9.5.1.14)
type (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%type (integer) (7.9.5.1.3)
rho_tor (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%rho_tor (float) (7.9.5.1.2)
poloidal (2631)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal (corefieldneutralv) (7.9.5.1.115)
value (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%value (vecflt_type) (7.9.5.1.14)
boundary (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary (boundary_neutrals) (7.9.5.1.77)
value (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%value (vecflt_type) (7.9.5.1.14)
type (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%type (integer) (7.9.5.1.3)
rho_tor (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%rho_tor (float) (7.9.5.1.2)
radial (2631)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial (corefieldneutralv) (7.9.5.1.115)
value (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%value (vecflt_type) (7.9.5.1.14)
boundary (2630)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary (boundary_neutrals) (7.9.5.1.77)

value (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%value (vecflt_type) (7.9.5.1.14)
type (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%type (integer) (7.9.5.1.3)
rho_tor (2592)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%rho_tor (float) (7.9.5.1.2)
prad0 (2789)	coreneutrals%profiles(:)%prad0 (vecflt_type) (7.9.5.1.14)
ioncoeff (2540)	coreneutrals%ioncoeff(:) (coefficients_neutrals) (7.9.5.1.84)
recycling (2599)	coreneutrals%ioncoeff(:)%recycling (recycling_neutrals) (7.9.5.1.309)
particles (2824)	coreneutrals%ioncoeff(:)%recycling%particles (vecflt_type) (7.9.5.1.14)
energy (2824)	coreneutrals%ioncoeff(:)%recycling%energy (vecflt_type) (7.9.5.1.14)
sputtering (2599)	coreneutrals%ioncoeff(:)%sputtering (sputtering_neutrals) (7.9.5.1.398)
physical (2913)	coreneutrals%ioncoeff(:)%sputtering%physical (vecflt_type) (7.9.5.1.14)
chemical (2913)	coreneutrals%ioncoeff(:)%sputtering%chemical (vecflt_type) (7.9.5.1.14)
impcoeff (2540)	coreneutrals%impcoeff(:) (impcoeff) (7.9.5.1.232)
chargestate (2747)	coreneutrals%impcoeff(:)%chargestate(:) (coefficients_neutrals) (7.9.5.1.84)
recycling (2599)	coreneutrals%impcoeff(:)%chargestate(:)%recycling (recycling_neutrals) (7.9.5.1.309)
particles (2824)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%particles (vecflt_type) (7.9.5.1.14)
energy (2824)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%energy (vecflt_type) (7.9.5.1.14)
sputtering (2599)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering (sputtering_neutrals) (7.9.5.1.398)
physical (2913)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%physical (vecflt_type) (7.9.5.1.14)
chemical (2913)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%chemical (vecflt_type) (7.9.5.1.14)
codeparam (2540)	coreneutrals%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreneutrals%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreneutrals%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreneutrals%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreneutrals%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreneutrals%codeparam%output_flag (integer) (7.9.5.1.3)
time (2540)	coreneutrals%time (float) (7.9.5.1.2)

7.9.5.2.8 coreprof

datainfo (2541)	coreprof%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	coreprof%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coreprof%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coreprof%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coreprof%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coreprof%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coreprof%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coreprof%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coreprof%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coreprof%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coreprof%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coreprof%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coreprof%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coreprof%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coreprof%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coreprof%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coreprof%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coreprof%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coreprof%datainfo%putinfo%rights (string) (7.9.5.1.4)
rho_tor_norm (2541)	coreprof%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2541)	coreprof%rho_tor (vecflt_type) (7.9.5.1.14)
drho_dt (2541)	coreprof%drho_dt (vecflt_type) (7.9.5.1.14)
toroid_field (2541)	coreprof%toroid_field (toroid_field) (7.9.5.1.413)
b0 (2928)	coreprof%toroid_field%b0 (float) (7.9.5.1.2)
b0prime (2928)	coreprof%toroid_field%b0prime (float) (7.9.5.1.2)
r0 (2928)	coreprof%toroid_field%r0 (float) (7.9.5.1.2)
time (2928)	coreprof%toroid_field%time (float) (7.9.5.1.2)
composition (2541)	coreprof%composition (composition) (7.9.5.1.101)
amn (2616)	coreprof%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	coreprof%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	coreprof%composition%zion (vecflt_type) (7.9.5.1.14)

imp_flag (2616)	coreprof%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	coreprof%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2541)	coreprof%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coreprof%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	coreprof%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coreprof%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coreprof%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coreprof%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coreprof%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coreprof%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2541)	coreprof%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	coreprof%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coreprof%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	coreprof%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coreprof%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coreprof%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coreprof%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coreprof%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coreprof%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	coreprof%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coreprof%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coreprof%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coreprof%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coreprof%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coreprof%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coreprof%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coreprof%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coreprof%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coreprof%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coreprof%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coreprof%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coreprof%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coreprof%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coreprof%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coreprof%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coreprof%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coreprof%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coreprof%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coreprof%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coreprof%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coreprof%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coreprof%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coreprof%compositions%signature%description (string) (7.9.5.1.4)
psi (2541)	coreprof%psi (psi) (7.9.5.1.306)
value (2821)	coreprof%psi%value (vecflt_type) (7.9.5.1.14)
ddrho (2821)	coreprof%psi%ddrho (vecflt_type) (7.9.5.1.14)
d2drho2 (2821)	coreprof%psi%d2drho2 (vecflt_type) (7.9.5.1.14)
ddt_rhotorn (2821)	coreprof%psi%ddt_rhotorn (vecflt_type) (7.9.5.1.14)
ddt_phi (2821)	coreprof%psi%ddt_phi (vecflt_type) (7.9.5.1.14)
source (2821)	coreprof%psi%source (string) (7.9.5.1.4)
flag (2821)	coreprof%psi%flag (integer) (7.9.5.1.3)
boundary (2821)	coreprof%psi%boundary (boundary) (7.9.5.1.76)
value (2591)	coreprof%psi%boundary%value (vecflt_type) (7.9.5.1.14)
source (2591)	coreprof%psi%boundary%source (string) (7.9.5.1.4)
type (2591)	coreprof%psi%boundary%type (integer) (7.9.5.1.3)
rho (2591)	coreprof%psi%boundary%rho (float) (7.9.5.1.2)
codeparam (2591)	coreprof%psi%boundary%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%psi%boundary%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.5.1.4)

parameters (2598)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.5.1.3)
jni (2821)	coreprof%psi%jni (jni) (7.9.5.1.238)
value (2753)	coreprof%psi%jni%value (vecflt_type) (7.9.5.1.14)
integral (2753)	coreprof%psi%jni%integral (vecflt_type) (7.9.5.1.14)
source (2753)	coreprof%psi%jni%source (string) (7.9.5.1.4)
sigma_par (2821)	coreprof%psi%sigma_par (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%psi%sigma_par%source (string) (7.9.5.1.4)
codeparam (2821)	coreprof%psi%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%psi%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%psi%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%psi%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%psi%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%psi%codeparam%output_flag (integer) (7.9.5.1.3)
te (2541)	coreprof%te (corefield) (7.9.5.1.111)
value (2626)	coreprof%te%value (vecflt_type) (7.9.5.1.14)
ddrho (2626)	coreprof%te%ddrho (vecflt_type) (7.9.5.1.14)
d2drho2 (2626)	coreprof%te%d2drho2 (vecflt_type) (7.9.5.1.14)
ddt (2626)	coreprof%te%ddt (vecflt_type) (7.9.5.1.14)
source (2626)	coreprof%te%source (string) (7.9.5.1.4)
flag (2626)	coreprof%te%flag (integer) (7.9.5.1.3)
boundary (2626)	coreprof%te%boundary (boundaryel) (7.9.5.1.78)
value (2593)	coreprof%te%boundary%value (vecflt_type) (7.9.5.1.14)
source (2593)	coreprof%te%boundary%source (string) (7.9.5.1.4)
type (2593)	coreprof%te%boundary%type (integer) (7.9.5.1.3)
rho_tor (2593)	coreprof%te%boundary%rho_tor (float) (7.9.5.1.2)
source_term (2626)	coreprof%te%source_term (sourceel) (7.9.5.1.390)
value (2905)	coreprof%te%source_term%value (vecflt_type) (7.9.5.1.14)
integral (2905)	coreprof%te%source_term%integral (vecflt_type) (7.9.5.1.14)
source (2905)	coreprof%te%source_term%source (string) (7.9.5.1.4)
transp_coef (2626)	coreprof%te%transp_coef (coretransel) (7.9.5.1.130)
diff (2645)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.5.1.14)
vconv (2645)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.5.1.14)
source (2645)	coreprof%te%transp_coef%source (string) (7.9.5.1.4)
flux (2626)	coreprof%te%flux (fluxel) (7.9.5.1.204)
flux_dv (2719)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.5.1.14)
flux_interp (2719)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.5.1.14)
flux_dv_surf (2626)	coreprof%te%flux_dv_surf (vecflt_type) (7.9.5.1.14)
time_deriv (2626)	coreprof%te%time_deriv (vecflt_type) (7.9.5.1.14)
codeparam (2626)	coreprof%te%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%te%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%te%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%te%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%te%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%te%codeparam%output_flag (integer) (7.9.5.1.3)
ti (2541)	coreprof%ti (corefieldion) (7.9.5.1.112)
value (2627)	coreprof%ti%value (matflt_type) (7.9.5.1.12)
ddrho (2627)	coreprof%ti%ddrho (matflt_type) (7.9.5.1.12)
d2drho2 (2627)	coreprof%ti%d2drho2 (matflt_type) (7.9.5.1.12)
ddt (2627)	coreprof%ti%ddt (matflt_type) (7.9.5.1.12)
source (2627)	coreprof%ti%source (vecstring_type) (7.9.5.1.16)
flag (2627)	coreprof%ti%flag (vecint_type) (7.9.5.1.15)
boundary (2627)	coreprof%ti%boundary (boundaryion) (7.9.5.1.80)
value (2595)	coreprof%ti%boundary%value (matflt_type) (7.9.5.1.12)
source (2595)	coreprof%ti%boundary%source (vecstring_type) (7.9.5.1.16)
type (2595)	coreprof%ti%boundary%type (vecint_type) (7.9.5.1.15)
rho_tor (2595)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.5.1.14)
source_term (2627)	coreprof%ti%source_term (sourceion) (7.9.5.1.392)
value (2907)	coreprof%ti%source_term%value (matflt_type) (7.9.5.1.12)

integral (2907)	coreprof%ti%source_term%integral (matflt_type) (7.9.5.1.12)
source (2907)	coreprof%ti%source_term%source (vecstring_type) (7.9.5.1.16)
transp_coef (2627)	coreprof%ti%transp_coef (coretransion) (7.9.5.1.132)
diff (2647)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.5.1.12)
vconv (2647)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.5.1.12)
source (2647)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.5.1.16)
flux (2627)	coreprof%ti%flux (fluxion) (7.9.5.1.206)
flux_dv (2721)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.5.1.12)
flux_interp (2721)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.5.1.12)
flux_dv_surf (2627)	coreprof%ti%flux_dv_surf (matflt_type) (7.9.5.1.12)
time_deriv (2627)	coreprof%ti%time_deriv (matflt_type) (7.9.5.1.12)
codeparam (2627)	coreprof%ti%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%ti%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%ti%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%ti%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%ti%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%ti%codeparam%output_flag (integer) (7.9.5.1.3)
ne (2541)	coreprof%ne (corefield) (7.9.5.1.111)
value (2626)	coreprof%ne%value (vecflt_type) (7.9.5.1.14)
ddrho (2626)	coreprof%ne%ddrho (vecflt_type) (7.9.5.1.14)
d2drho2 (2626)	coreprof%ne%d2drho2 (vecflt_type) (7.9.5.1.14)
ddt (2626)	coreprof%ne%ddt (vecflt_type) (7.9.5.1.14)
source (2626)	coreprof%ne%source (string) (7.9.5.1.4)
flag (2626)	coreprof%ne%flag (integer) (7.9.5.1.3)
boundary (2626)	coreprof%ne%boundary (boundaryel) (7.9.5.1.78)
value (2593)	coreprof%ne%boundary%value (vecflt_type) (7.9.5.1.14)
source (2593)	coreprof%ne%boundary%source (string) (7.9.5.1.4)
type (2593)	coreprof%ne%boundary%type (integer) (7.9.5.1.3)
rho_tor (2593)	coreprof%ne%boundary%rho_tor (float) (7.9.5.1.2)
source_term (2626)	coreprof%ne%source_term (sourceel) (7.9.5.1.390)
value (2905)	coreprof%ne%source_term%value (vecflt_type) (7.9.5.1.14)
integral (2905)	coreprof%ne%source_term%integral (vecflt_type) (7.9.5.1.14)
source (2905)	coreprof%ne%source_term%source (string) (7.9.5.1.4)
transp_coef (2626)	coreprof%ne%transp_coef (coretransel) (7.9.5.1.130)
diff (2645)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.5.1.14)
vconv (2645)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.5.1.14)
source (2645)	coreprof%ne%transp_coef%source (string) (7.9.5.1.4)
flux (2626)	coreprof%ne%flux (fluxel) (7.9.5.1.204)
flux_dv (2719)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.5.1.14)
flux_interp (2719)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.5.1.14)
flux_dv_surf (2626)	coreprof%ne%flux_dv_surf (vecflt_type) (7.9.5.1.14)
time_deriv (2626)	coreprof%ne%time_deriv (vecflt_type) (7.9.5.1.14)
codeparam (2626)	coreprof%ne%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%ne%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%ne%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%ne%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%ne%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%ne%codeparam%output_flag (integer) (7.9.5.1.3)
ni (2541)	coreprof%ni (corefieldion) (7.9.5.1.112)
value (2627)	coreprof%ni%value (matflt_type) (7.9.5.1.12)
ddrho (2627)	coreprof%ni%ddrho (matflt_type) (7.9.5.1.12)
d2drho2 (2627)	coreprof%ni%d2drho2 (matflt_type) (7.9.5.1.12)
ddt (2627)	coreprof%ni%ddt (matflt_type) (7.9.5.1.12)
source (2627)	coreprof%ni%source (vecstring_type) (7.9.5.1.16)
flag (2627)	coreprof%ni%flag (vecint_type) (7.9.5.1.15)
boundary (2627)	coreprof%ni%boundary (boundaryion) (7.9.5.1.80)
value (2595)	coreprof%ni%boundary%value (matflt_type) (7.9.5.1.12)
source (2595)	coreprof%ni%boundary%source (vecstring_type) (7.9.5.1.16)
type (2595)	coreprof%ni%boundary%type (vecint_type) (7.9.5.1.15)
rho_tor (2595)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.5.1.14)
source_term (2627)	coreprof%ni%source_term (sourceion) (7.9.5.1.392)

value (2907)	coreprof%ni%source_term%value (matflt_type) (7.9.5.1.12)
integral (2907)	coreprof%ni%source_term%integral (matflt_type) (7.9.5.1.12)
source (2907)	coreprof%ni%source_term%source (vecstring_type) (7.9.5.1.16)
transp_coef (2627)	coreprof%ni%transp_coef (coretransion) (7.9.5.1.132)
diff (2647)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.5.1.12)
vconv (2647)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.5.1.12)
source (2647)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.5.1.16)
flux (2627)	coreprof%ni%flux (fluxion) (7.9.5.1.206)
flux_dv (2721)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.5.1.12)
flux_interp (2721)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.5.1.12)
flux_dv_surf (2627)	coreprof%ni%flux_dv_surf (matflt_type) (7.9.5.1.12)
time_deriv (2627)	coreprof%ni%time_deriv (matflt_type) (7.9.5.1.12)
codeparam (2627)	coreprof%ni%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%ni%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%ni%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%ni%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%ni%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%ni%codeparam%output_flag (integer) (7.9.5.1.3)
vtor (2541)	coreprof%vtor (corefieldion) (7.9.5.1.112)
value (2627)	coreprof%vtor%value (matflt_type) (7.9.5.1.12)
ddrho (2627)	coreprof%vtor%ddrho (matflt_type) (7.9.5.1.12)
d2drho2 (2627)	coreprof%vtor%d2drho2 (matflt_type) (7.9.5.1.12)
ddt (2627)	coreprof%vtor%ddt (matflt_type) (7.9.5.1.12)
source (2627)	coreprof%vtor%source (vecstring_type) (7.9.5.1.16)
flag (2627)	coreprof%vtor%flag (vecint_type) (7.9.5.1.15)
boundary (2627)	coreprof%vtor%boundary (boundaryion) (7.9.5.1.80)
value (2595)	coreprof%vtor%boundary%value (matflt_type) (7.9.5.1.12)
source (2595)	coreprof%vtor%boundary%source (vecstring_type) (7.9.5.1.16)
type (2595)	coreprof%vtor%boundary%type (vecint_type) (7.9.5.1.15)
rho_tor (2595)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.5.1.14)
source_term (2627)	coreprof%vtor%source_term (sourceion) (7.9.5.1.392)
value (2907)	coreprof%vtor%source_term%value (matflt_type) (7.9.5.1.12)
integral (2907)	coreprof%vtor%source_term%integral (matflt_type) (7.9.5.1.12)
source (2907)	coreprof%vtor%source_term%source (vecstring_type) (7.9.5.1.16)
transp_coef (2627)	coreprof%vtor%transp_coef (coretransion) (7.9.5.1.132)
diff (2647)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.5.1.12)
vconv (2647)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.5.1.12)
source (2647)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.5.1.16)
flux (2627)	coreprof%vtor%flux (fluxion) (7.9.5.1.206)
flux_dv (2721)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.5.1.12)
flux_interp (2721)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.5.1.12)
flux_dv_surf (2627)	coreprof%vtor%flux_dv_surf (matflt_type) (7.9.5.1.12)
time_deriv (2627)	coreprof%vtor%time_deriv (matflt_type) (7.9.5.1.12)
codeparam (2627)	coreprof%vtor%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%vtor%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%vtor%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%vtor%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%vtor%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%vtor%codeparam%output_flag (integer) (7.9.5.1.3)
profiles1d (2541)	coreprof%profiles1d (profiles1d) (7.9.5.1.304)
pe (2819)	coreprof%profiles1d%pe (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%pe%source (string) (7.9.5.1.4)
dpedt (2819)	coreprof%profiles1d%dpedt (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%dpedt%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%dpedt%source (string) (7.9.5.1.4)
pi (2819)	coreprof%profiles1d%pi (coreprofion) (7.9.5.1.128)
value (2643)	coreprof%profiles1d%pi%value (matflt_type) (7.9.5.1.12)
source (2643)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.5.1.16)
pi_tot (2819)	coreprof%profiles1d%pi_tot (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%pi_tot%value (vecflt_type) (7.9.5.1.14)

source (2642)	coreprof%profiles1d%pi_tot%source (string) (7.9.5.1.4)
dpi_totdt (2819)	coreprof%profiles1d%dpi_totdt (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%dpi_totdt%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%dpi_totdt%source (string) (7.9.5.1.4)
pr_th (2819)	coreprof%profiles1d%pr_th (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%pr_th%source (string) (7.9.5.1.4)
pr_perp (2819)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%pr_perp%source (string) (7.9.5.1.4)
pr_parallel (2819)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%pr_parallel%source (string) (7.9.5.1.4)
jtot (2819)	coreprof%profiles1d%jtot (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%jtot%source (string) (7.9.5.1.4)
jni (2819)	coreprof%profiles1d%jni (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%jni%source (string) (7.9.5.1.4)
jphi (2819)	coreprof%profiles1d%jphi (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%jphi%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%jphi%source (string) (7.9.5.1.4)
joh (2819)	coreprof%profiles1d%joh (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%joh%source (string) (7.9.5.1.4)
vloop (2819)	coreprof%profiles1d%vloop (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%vloop%source (string) (7.9.5.1.4)
sigmapar (2819)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%sigmapar%source (string) (7.9.5.1.4)
qoh (2819)	coreprof%profiles1d%qoh (sourceel) (7.9.5.1.390)
value (2905)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.5.1.14)
integral (2905)	coreprof%profiles1d%qoh%integral (vecflt_type) (7.9.5.1.14)
source (2905)	coreprof%profiles1d%qoh%source (string) (7.9.5.1.4)
qei (2819)	coreprof%profiles1d%qei (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%qei%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%qei%source (string) (7.9.5.1.4)
eparallel (2819)	coreprof%profiles1d%eparallel (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%eparallel%source (string) (7.9.5.1.4)
e_b (2819)	coreprof%profiles1d%e_b (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%e_b%source (string) (7.9.5.1.4)
q (2819)	coreprof%profiles1d%q (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%q%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%q%source (string) (7.9.5.1.4)
shear (2819)	coreprof%profiles1d%shear (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%shear%source (string) (7.9.5.1.4)
ns (2819)	coreprof%profiles1d%ns (coreprofion) (7.9.5.1.128)
value (2643)	coreprof%profiles1d%ns%value (matflt_type) (7.9.5.1.12)
source (2643)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.5.1.16)
mtor (2819)	coreprof%profiles1d%mtor (coreprofion) (7.9.5.1.128)
value (2643)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.5.1.12)
source (2643)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.5.1.16)
wtor (2819)	coreprof%profiles1d%wtor (coreprofion) (7.9.5.1.128)
value (2643)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.5.1.12)
source (2643)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.5.1.16)
zeff (2819)	coreprof%profiles1d%zeff (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.5.1.14)

source (2642)	coreprof%profiles1d%zeff%source (string) (7.9.5.1.4)
bpol (2819)	coreprof%profiles1d%bpol (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%bpol%source (string) (7.9.5.1.4)
dvprimedt (2819)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.5.1.127)
value (2642)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.5.1.14)
source (2642)	coreprof%profiles1d%dvprimedt%source (string) (7.9.5.1.4)
globalparam (2541)	coreprof%globalparam (globalparam) (7.9.5.1.226)
current_tot (2741)	coreprof%globalparam%current_tot (float) (7.9.5.1.2)
current_bnd (2741)	coreprof%globalparam%current_bnd (float) (7.9.5.1.2)
current_ni (2741)	coreprof%globalparam%current_ni (float) (7.9.5.1.2)
vloop (2741)	coreprof%globalparam%vloop (float) (7.9.5.1.2)
li (2741)	coreprof%globalparam%li (float) (7.9.5.1.2)
beta_tor (2741)	coreprof%globalparam%beta_tor (float) (7.9.5.1.2)
beta_normal (2741)	coreprof%globalparam%beta_normal (float) (7.9.5.1.2)
beta_pol (2741)	coreprof%globalparam%beta_pol (float) (7.9.5.1.2)
w_dia (2741)	coreprof%globalparam%w_dia (float) (7.9.5.1.2)
codeparam (2541)	coreprof%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coreprof%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coreprof%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coreprof%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coreprof%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coreprof%codeparam%output_flag (integer) (7.9.5.1.3)
time (2541)	coreprof%time (float) (7.9.5.1.2)

7.9.5.2.9 coresource

datainfo (2542)	coresource%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	coresource%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coresource%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coresource%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coresource%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coresource%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coresource%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coresource%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coresource%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coresource%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coresource%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coresource%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coresource%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coresource%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coresource%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coresource%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coresource%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coresource%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coresource%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2542)	coresource%composition (composition) (7.9.5.1.101)
amn (2616)	coresource%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	coresource%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	coresource%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	coresource%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	coresource%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2542)	coresource%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coresource%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	coresource%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coresource%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coresource%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coresource%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coresource%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coresource%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2542)	coresource%compositions (compositions_type) (7.9.5.1.105)

nuclei (2620)	coresource%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coresource%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	coresource%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coresource%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coresource%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coresource%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coresource%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coresource%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	coresource%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coresource%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coresource%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coresource%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coresource%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coresource%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coresource%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coresource%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coresource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coresource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coresource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coresource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coresource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coresource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coresource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coresource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coresource%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coresource%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coresource%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coresource%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coresource%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coresource%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coresource%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coresource%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coresource%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coresource%compositions%signature%description (string) (7.9.5.1.4)
toroid_field (2542)	coresource%toroid_field (b0r0) (7.9.5.1.73)
r0 (2588)	coresource%toroid_field%r0 (float) (7.9.5.1.2)
b0 (2588)	coresource%toroid_field%b0 (float) (7.9.5.1.2)
values (2542)	coresource%values(:) (coresource_values) (7.9.5.1.129)
sourceid (2644)	coresource%values(:)%sourceid (identifier) (7.9.5.1.231)
id (2746)	coresource%values(:)%sourceid%id (string) (7.9.5.1.4)
flag (2746)	coresource%values(:)%sourceid%flag (integer) (7.9.5.1.3)
description (2746)	coresource%values(:)%sourceid%description (string) (7.9.5.1.4)
rho_tor (2644)	coresource%values(:)%rho_tor (vecflt_type) (7.9.5.1.14)
rho_tor_norm (2644)	coresource%values(:)%rho_tor_norm (vecflt_type) (7.9.5.1.14)
j (2644)	coresource%values(:)%j (vecflt_type) (7.9.5.1.14)
sigma (2644)	coresource%values(:)%sigma (vecflt_type) (7.9.5.1.14)
si (2644)	coresource%values(:)%si (source_ion) (7.9.5.1.385)
exp (2900)	coresource%values(:)%si%exp (matflt_type) (7.9.5.1.12)
imp (2900)	coresource%values(:)%si%imp (matflt_type) (7.9.5.1.12)
se (2644)	coresource%values(:)%se (source_vec) (7.9.5.1.389)
exp (2904)	coresource%values(:)%se%exp (vecflt_type) (7.9.5.1.14)
imp (2904)	coresource%values(:)%se%imp (vecflt_type) (7.9.5.1.14)
sz (2644)	coresource%values(:)%sz(:) (source_imp) (7.9.5.1.384)
exp (2899)	coresource%values(:)%sz(:)%exp (matflt_type) (7.9.5.1.12)
imp (2899)	coresource%values(:)%sz(:)%imp (matflt_type) (7.9.5.1.12)
qi (2644)	coresource%values(:)%qi (source_ion) (7.9.5.1.385)
exp (2900)	coresource%values(:)%qi%exp (matflt_type) (7.9.5.1.12)
imp (2900)	coresource%values(:)%qi%imp (matflt_type) (7.9.5.1.12)
qe (2644)	coresource%values(:)%qe (source_vec) (7.9.5.1.389)
exp (2904)	coresource%values(:)%qe%exp (vecflt_type) (7.9.5.1.14)
imp (2904)	coresource%values(:)%qe%imp (vecflt_type) (7.9.5.1.14)

qz (2644)	coresource%values(:)%qz(:) (source_imp) (7.9.5.1.384)
exp (2899)	coresource%values(:)%qz(:)%exp (matflt_type) (7.9.5.1.12)
imp (2899)	coresource%values(:)%qz(:)%imp (matflt_type) (7.9.5.1.12)
ui (2644)	coresource%values(:)%ui (source_ion) (7.9.5.1.385)
exp (2900)	coresource%values(:)%ui%exp (matflt_type) (7.9.5.1.12)
imp (2900)	coresource%values(:)%ui%imp (matflt_type) (7.9.5.1.12)
ujxb (2644)	coresource%values(:)%ujxb (source_vec) (7.9.5.1.389)
exp (2904)	coresource%values(:)%ujxb%exp (vecflt_type) (7.9.5.1.14)
imp (2904)	coresource%values(:)%ujxb%imp (vecflt_type) (7.9.5.1.14)
codeparam (2644)	coresource%values(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coresource%values(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coresource%values(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coresource%values(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coresource%values(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coresource%values(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2542)	coresource%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coresource%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coresource%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coresource%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coresource%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coresource%codeparam%output_flag (integer) (7.9.5.1.3)
time (2542)	coresource%time (float) (7.9.5.1.2)

7.9.5.2.10 coretransp

datainfo (2543)	coretransp%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	coretransp%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	coretransp%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	coretransp%datainfo%source (string) (7.9.5.1.4)
comment (2653)	coretransp%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	coretransp%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	coretransp%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	coretransp%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	coretransp%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	coretransp%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	coretransp%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	coretransp%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	coretransp%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	coretransp%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	coretransp%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	coretransp%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	coretransp%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	coretransp%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	coretransp%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2543)	coretransp%composition (composition) (7.9.5.1.101)
amn (2616)	coretransp%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	coretransp%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	coretransp%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	coretransp%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	coretransp%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2543)	coretransp%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	coretransp%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	coretransp%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	coretransp%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	coretransp%desc_impur%nzimp (vecint_type) (7.9.5.1.15)
zmin (2656)	coretransp%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	coretransp%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	coretransp%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2543)	coretransp%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	coretransp%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	coretransp%compositions%nuclei(:)%zn (float) (7.9.5.1.2)

amn (2791)	coretransp%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	coretransp%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	coretransp%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	coretransp%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	coretransp%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	coretransp%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	coretransp%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	coretransp%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	coretransp%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	coretransp%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	coretransp%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	coretransp%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	coretransp%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	coretransp%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	coretransp%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	coretransp%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	coretransp%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	coretransp%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	coretransp%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	coretransp%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	coretransp%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	coretransp%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	coretransp%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	coretransp%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	coretransp%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	coretransp%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	coretransp%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	coretransp%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	coretransp%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	coretransp%compositions%signature%description (string) (7.9.5.1.4)
values (2543)	coretransp%values(:) (coretransp_values) (7.9.5.1.133)
transportid (2648)	coretransp%values(:)%transportid (identifier) (7.9.5.1.231)
id (2746)	coretransp%values(:)%transportid%id (string) (7.9.5.1.4)
flag (2746)	coretransp%values(:)%transportid%flag (integer) (7.9.5.1.3)
description (2746)	coretransp%values(:)%transportid%description (string) (7.9.5.1.4)
rho_tor_norm (2648)	coretransp%values(:)%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2648)	coretransp%values(:)%rho_tor (vecflt_type) (7.9.5.1.14)
sigma (2648)	coretransp%values(:)%sigma (vecflt_type) (7.9.5.1.14)
ni_transp (2648)	coretransp%values(:)%ni_transp (ni_transp) (7.9.5.1.275)
diff_eff (2790)	coretransp%values(:)%ni_transp%diff_eff (array3dflt_type) (7.9.5.1.6)
vconv_eff (2790)	coretransp%values(:)%ni_transp%vconv_eff (array3dflt_type) (7.9.5.1.6)
flux (2790)	coretransp%values(:)%ni_transp%flux (matflt_type) (7.9.5.1.12)
off_diagonal (2790)	coretransp%values(:)%ni_transp%off_diagonal (offdiagion) (7.9.5.1.279)
d_ni (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.5.1.6)
d_ti (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.5.1.6)
d_ne (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.5.1.12)
d_te (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_te (matflt_type) (7.9.5.1.12)
d_epar (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.5.1.12)
d_mtor (2794)	coretransp%values(:)%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.5.1.12)
flag (2790)	coretransp%values(:)%ni_transp%flag (integer) (7.9.5.1.3)
ne_transp (2648)	coretransp%values(:)%ne_transp (ne_transp) (7.9.5.1.273)
diff_eff (2788)	coretransp%values(:)%ne_transp%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2788)	coretransp%values(:)%ne_transp%vconv_eff (matflt_type) (7.9.5.1.12)
flux (2788)	coretransp%values(:)%ne_transp%flux (vecflt_type) (7.9.5.1.14)
off_diagonal (2788)	coretransp%values(:)%ne_transp%off_diagonal (offdiagel) (7.9.5.1.278)
d_ni (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.5.1.12)
d_ti (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.5.1.12)
d_ne (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.5.1.14)
d_te (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.5.1.14)

d_epar (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.5.1.14)
d_mtor (2793)	coretransp%values(:)%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.5.1.14)
flag (2788)	coretransp%values(:)%ne_transp%flag (integer) (7.9.5.1.3)
nz_transp (2648)	coretransp%values(:)%nz_transp(:) (transcoefimp) (7.9.5.1.416)
diff_eff (2931)	coretransp%values(:)%nz_transp(:)%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2931)	coretransp%values(:)%nz_transp(:)%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2931)	coretransp%values(:)%nz_transp(:)%exchange (matflt_type) (7.9.5.1.12)
flux (2931)	coretransp%values(:)%nz_transp(:)%flux (matflt_type) (7.9.5.1.12)
flag (2931)	coretransp%values(:)%nz_transp(:)%flag (integer) (7.9.5.1.3)
ti_transp (2648)	coretransp%values(:)%ti_transp (transcoefion) (7.9.5.1.417)
diff_eff (2932)	coretransp%values(:)%ti_transp%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2932)	coretransp%values(:)%ti_transp%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2932)	coretransp%values(:)%ti_transp%exchange (matflt_type) (7.9.5.1.12)
qgi (2932)	coretransp%values(:)%ti_transp%qgi (matflt_type) (7.9.5.1.12)
flux (2932)	coretransp%values(:)%ti_transp%flux (matflt_type) (7.9.5.1.12)
off_diagonal (2932)	coretransp%values(:)%ti_transp%off_diagonal (offdiagion) (7.9.5.1.279)
d_ni (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.5.1.6)
d_ti (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.5.1.6)
d_ne (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.5.1.12)
d_te (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_te (matflt_type) (7.9.5.1.12)
d_epar (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.5.1.12)
d_mtor (2794)	coretransp%values(:)%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.5.1.12)
flag (2932)	coretransp%values(:)%ti_transp%flag (integer) (7.9.5.1.3)
te_transp (2648)	coretransp%values(:)%te_transp (transcoefel) (7.9.5.1.415)
diff_eff (2930)	coretransp%values(:)%te_transp%diff_eff (vecflt_type) (7.9.5.1.14)
vconv_eff (2930)	coretransp%values(:)%te_transp%vconv_eff (vecflt_type) (7.9.5.1.14)
flux (2930)	coretransp%values(:)%te_transp%flux (vecflt_type) (7.9.5.1.14)
off_diagonal (2930)	coretransp%values(:)%te_transp%off_diagonal (offdiagel) (7.9.5.1.278)
d_ni (2793)	coretransp%values(:)%te_transp%off_diagonal%d_ni (matflt_type) (7.9.5.1.12)
d_ti (2793)	coretransp%values(:)%te_transp%off_diagonal%d_ti (matflt_type) (7.9.5.1.12)
d_ne (2793)	coretransp%values(:)%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.5.1.14)
d_te (2793)	coretransp%values(:)%te_transp%off_diagonal%d_te (vecflt_type) (7.9.5.1.14)
d_epar (2793)	coretransp%values(:)%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.5.1.14)
d_mtor (2793)	coretransp%values(:)%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.5.1.14)
flag (2930)	coretransp%values(:)%te_transp%flag (integer) (7.9.5.1.3)
tz_transp (2648)	coretransp%values(:)%tz_transp(:) (transcoefimp) (7.9.5.1.416)
diff_eff (2931)	coretransp%values(:)%tz_transp(:)%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2931)	coretransp%values(:)%tz_transp(:)%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2931)	coretransp%values(:)%tz_transp(:)%exchange (matflt_type) (7.9.5.1.12)
flux (2931)	coretransp%values(:)%tz_transp(:)%flux (matflt_type) (7.9.5.1.12)
flag (2931)	coretransp%values(:)%tz_transp(:)%flag (integer) (7.9.5.1.3)
vtor_transp (2648)	coretransp%values(:)%vtor_transp (transcoefvtor) (7.9.5.1.418)
diff_eff (2933)	coretransp%values(:)%vtor_transp%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2933)	coretransp%values(:)%vtor_transp%vconv_eff (matflt_type) (7.9.5.1.12)
flux (2933)	coretransp%values(:)%vtor_transp%flux (matflt_type) (7.9.5.1.12)
off_diagonal (2933)	coretransp%values(:)%vtor_transp%off_diagonal (offdiagion) (7.9.5.1.279)
d_ni (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.5.1.6)
d_ti (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.5.1.6)
d_ne (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.5.1.12)
d_te (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.5.1.12)
d_epar (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.5.1.12)
d_mtor (2794)	coretransp%values(:)%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.5.1.12)
flag (2933)	coretransp%values(:)%vtor_transp%flag (integer) (7.9.5.1.3)
codeparam (2648)	coretransp%values(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coretransp%values(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	coretransp%values(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coretransp%values(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coretransp%values(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coretransp%values(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2543)	coretransp%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	coretransp%codeparam%codename (string) (7.9.5.1.4)

codeversion (2598)	coretransp%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	coretransp%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	coretransp%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	coretransp%codeparam%output_flag (integer) (7.9.5.1.3)
time (2543)	coretransp%time (float) (7.9.5.1.2)

7.9.5.2.11 cxdiag

datainfo (2544)	cxdiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	cxdiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	cxdiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	cxdiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	cxdiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	cxdiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	cxdiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	cxdiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	cxdiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	cxdiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	cxdiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	cxdiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	cxdiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	cxdiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	cxdiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2544)	cxdiag%setup (cxsetup) (7.9.5.1.136)
position (2651)	cxdiag%setup%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	cxdiag%setup%position%r (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%setup%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	cxdiag%setup%position%z (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%setup%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	cxdiag%setup%position%phi (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2544)	cxdiag%measure (cxmeasure) (7.9.5.1.135)
ti (2650)	cxdiag%measure%ti (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%measure%ti%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.5.1.14)
vtor (2650)	cxdiag%measure%vtor (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%measure%vtor%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.5.1.14)
vpol (2650)	cxdiag%measure%vpol (exp1D) (7.9.5.1.198)
value (2713)	cxdiag%measure%vpol%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.5.1.14)
time (2544)	cxdiag%time (float) (7.9.5.1.2)

7.9.5.2.12 distribution

datainfo (2545)	distribution%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	distribution%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	distribution%datainfo%putdate (string) (7.9.5.1.4)

source (2653)	distribution%datainfo%source (string) (7.9.5.1.4)
comment (2653)	distribution%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	distribution%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	distribution%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	distribution%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	distribution%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	distribution%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	distribution%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	distribution%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	distribution%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	distribution%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	distribution%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	distribution%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	distribution%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	distribution%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	distribution%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2545)	distribution%composition (composition) (7.9.5.1.101)
amn (2616)	distribution%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	distribution%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	distribution%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	distribution%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	distribution%composition%label (vecstring_type) (7.9.5.1.16)
compositions (2545)	distribution%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	distribution%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	distribution%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	distribution%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	distribution%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	distribution%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	distribution%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	distribution%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	distribution%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	distribution%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	distribution%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	distribution%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	distribution%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	distribution%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	distribution%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	distribution%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	distribution%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	distribution%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	distribution%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	distribution%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	distribution%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	distribution%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	distribution%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	distribution%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	distribution%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	distribution%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	distribution%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	distribution%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	distribution%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	distribution%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	distribution%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	distribution%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	distribution%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	distribution%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	distribution%compositions%signature%description (string) (7.9.5.1.4)
distri_vec (2545)	distribution%distri_vec(:) (distri_vec) (7.9.5.1.168)
wave_id (2683)	distribution%distri_vec(:)%wave_id(:) (enum_instance) (7.9.5.1.190)
type (2705)	distribution%distri_vec(:)%wave_id(:)%type (identifier) (7.9.5.1.231)
id (2746)	distribution%distri_vec(:)%wave_id(:)%type%id (string) (7.9.5.1.4)

flag (2746)	distribution%distri_vec(:)%wave_id(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	distribution%distri_vec(:)%wave_id(:)%type%description (string) (7.9.5.1.4)
name (2705)	distribution%distri_vec(:)%wave_id(:)%name (string) (7.9.5.1.4)
index (2705)	distribution%distri_vec(:)%wave_id(:)%index (integer) (7.9.5.1.3)
source_id (2683)	distribution%distri_vec(:)%source_id(:) (enum_instance) (7.9.5.1.190)
type (2705)	distribution%distri_vec(:)%source_id(:)%type (identifier) (7.9.5.1.231)
id (2746)	distribution%distri_vec(:)%source_id(:)%type%id (string) (7.9.5.1.4)
flag (2746)	distribution%distri_vec(:)%source_id(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	distribution%distri_vec(:)%source_id(:)%type%description (string) (7.9.5.1.4)
name (2705)	distribution%distri_vec(:)%source_id(:)%name (string) (7.9.5.1.4)
index (2705)	distribution%distri_vec(:)%source_id(:)%index (integer) (7.9.5.1.3)
calc_spec (2683)	distribution%distri_vec(:)%calc_spec (integer) (7.9.5.1.3)
gyro_type (2683)	distribution%distri_vec(:)%gyro_type (integer) (7.9.5.1.3)
global_param (2683)	distribution%distri_vec(:)%global_param (dist_glob) (7.9.5.1.148)
n_particles (2663)	distribution%distri_vec(:)%global_param%n_particles (float) (7.9.5.1.2)
enrg (2663)	distribution%distri_vec(:)%global_param%enrg (float) (7.9.5.1.2)
enrg_para (2663)	distribution%distri_vec(:)%global_param%enrg_para (float) (7.9.5.1.2)
pow_coll_i (2663)	distribution%distri_vec(:)%global_param%pow_coll_i (vecflt_type) (7.9.5.1.14)
pow_coll_e (2663)	distribution%distri_vec(:)%global_param%pow_coll_e (float) (7.9.5.1.2)
therm_src (2663)	distribution%distri_vec(:)%global_param%therm_src (dist_src_snk_tot) (7.9.5.1.165)
particles (2680)	distribution%distri_vec(:)%global_param%therm_src%particles (float) (7.9.5.1.2)
power (2680)	distribution%distri_vec(:)%global_param%therm_src%power (float) (7.9.5.1.2)
torque (2680)	distribution%distri_vec(:)%global_param%therm_src%torque (float) (7.9.5.1.2)
losses (2663)	distribution%distri_vec(:)%global_param%losses (dist_glob_dist_losses) (7.9.5.1.149)
orb_loss (2664)	distribution%distri_vec(:)%global_param%losses%orb_loss (dist_src_snk_tot) (7.9.5.1.165)
particles (2680)	distribution%distri_vec(:)%global_param%losses%orb_loss%particles (float) (7.9.5.1.2)
power (2680)	distribution%distri_vec(:)%global_param%losses%orb_loss%power (float) (7.9.5.1.2)
torque (2680)	distribution%distri_vec(:)%global_param%losses%orb_loss%torque (float) (7.9.5.1.2)
neutr_loss (2664)	distribution%distri_vec(:)%global_param%losses%neutr_loss (dist_src_snk_tot) (7.9.5.1.165)
particles (2680)	distribution%distri_vec(:)%global_param%losses%neutr_loss%particles (float) (7.9.5.1.2)
power (2680)	distribution%distri_vec(:)%global_param%losses%neutr_loss%power (float) (7.9.5.1.2)
torque (2680)	distribution%distri_vec(:)%global_param%losses%neutr_loss%torque (float) (7.9.5.1.2)
cur_dr_tor (2663)	distribution%distri_vec(:)%global_param%cur_dr_tor (float) (7.9.5.1.2)
trq_i (2663)	distribution%distri_vec(:)%global_param%trq_i (vecflt_type) (7.9.5.1.14)
trq_e (2663)	distribution%distri_vec(:)%global_param%trq_e (float) (7.9.5.1.2)
trq_j_rxb (2663)	distribution%distri_vec(:)%global_param%trq_j_rxb (float) (7.9.5.1.2)
nucl_reac_th (2663)	distribution%distri_vec(:)%global_param%nucl_reac_th (dist_nucl_reac_th) (7.9.5.1.155)
rate (2670)	distribution%distri_vec(:)%global_param%nucl_reac_th%rate (vecflt_type) (7.9.5.1.14)
power (2670)	distribution%distri_vec(:)%global_param%nucl_reac_th%power (vecflt_type) (7.9.5.1.14)
nucl_reac_sf (2663)	distribution%distri_vec(:)%global_param%nucl_reac_sf (dist_nucl_reac_sf) (7.9.5.1.154)
rate (2669)	distribution%distri_vec(:)%global_param%nucl_reac_sf%rate (float) (7.9.5.1.2)
power (2669)	distribution%distri_vec(:)%global_param%nucl_reac_sf%power (float) (7.9.5.1.2)
profiles_1d (2683)	distribution%distri_vec(:)%profiles_1d (dist_profiles) (7.9.5.1.163)
rho_tor_norm (2678)	distribution%distri_vec(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2678)	distribution%distri_vec(:)%profiles_1d%rho_tor (vecflt_type) (7.9.5.1.14)
psi (2678)	distribution%distri_vec(:)%profiles_1d%psi (vecflt_type) (7.9.5.1.14)
dens (2678)	distribution%distri_vec(:)%profiles_1d%dens (vecflt_type) (7.9.5.1.14)
enrgd_tot (2678)	distribution%distri_vec(:)%profiles_1d%enrgd_tot (vecflt_type) (7.9.5.1.14)
enrgd_para (2678)	distribution%distri_vec(:)%profiles_1d%enrgd_para (vecflt_type) (7.9.5.1.14)
powd_coll_i (2678)	distribution%distri_vec(:)%profiles_1d%powd_coll_i (matflt_type) (7.9.5.1.12)
powd_coll_e (2678)	distribution%distri_vec(:)%profiles_1d%powd_coll_e (vecflt_type) (7.9.5.1.14)
therm_srcd (2678)	distribution%distri_vec(:)%profiles_1d%therm_srcd (dist_src_snk_surf) (7.9.5.1.164)
particlesd (2679)	distribution%distri_vec(:)%profiles_1d%therm_srcd%particlesd (vecflt_type) (7.9.5.1.14)
powerd (2679)	distribution%distri_vec(:)%profiles_1d%therm_srcd%powerd (vecflt_type) (7.9.5.1.14)
torqued (2679)	distribution%distri_vec(:)%profiles_1d%therm_srcd%torqued (vecflt_type) (7.9.5.1.14)
lossesd (2678)	distribution%distri_vec(:)%profiles_1d%lossesd (dist_prof_surf_dist_losses) (7.9.5.1.157)
orb_loss (2672)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss (dist_src_snk_surf) (7.9.5.1.164)
particlesd (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%particlesd (vecflt_type) (7.9.5.1.14)
powerd (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%powerd (vecflt_type) (7.9.5.1.14)
torqued (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%orb_loss%torqued (vecflt_type) (7.9.5.1.14)
neutr_loss (2672)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss (dist_src_snk_surf) (7.9.5.1.164)

particlesd (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%particlesd (vecflt_type) (7.9.5.1.14)
powerd (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%powerd (vecflt_type) (7.9.5.1.14)
torqued (2679)	distribution%distri_vec(:)%profiles_1d%lossesd%neutr_loss%torqued (vecflt_type) (7.9.5.1.14)
curd_fp (2678)	distribution%distri_vec(:)%profiles_1d%curd_fp (vecflt_type) (7.9.5.1.14)
curd_dr (2678)	distribution%distri_vec(:)%profiles_1d%curd_dr (vecflt_type) (7.9.5.1.14)
trqd_i (2678)	distribution%distri_vec(:)%profiles_1d%trqd_i (matflt_type) (7.9.5.1.12)
trqd_e (2678)	distribution%distri_vec(:)%profiles_1d%trqd_e (vecflt_type) (7.9.5.1.14)
trqd_jrxb (2678)	distribution%distri_vec(:)%profiles_1d%trqd_jrxb (vecflt_type) (7.9.5.1.14)
nucl_rd_th (2678)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th (dist_prof_surf_nucl_reac_th) (7.9.5.1.159)
rated (2674)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th%rated (matflt_type) (7.9.5.1.12)
powerd (2674)	distribution%distri_vec(:)%profiles_1d%nucl_rd_th%powerd (matflt_type) (7.9.5.1.12)
nucl_rd_sf (2678)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf (dist_prof_surf_nucl_reac_sf) (7.9.5.1.158)
rate (2673)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf%rate (vecflt_type) (7.9.5.1.14)
power (2673)	distribution%distri_vec(:)%profiles_1d%nucl_rd_sf%power (vecflt_type) (7.9.5.1.14)
enrg_tot (2678)	distribution%distri_vec(:)%profiles_1d%enrg_tot (vecflt_type) (7.9.5.1.14)
enrg_para (2678)	distribution%distri_vec(:)%profiles_1d%enrg_para (vecflt_type) (7.9.5.1.14)
pow_coll_i (2678)	distribution%distri_vec(:)%profiles_1d%pow_coll_i (matflt_type) (7.9.5.1.12)
pow_coll_e (2678)	distribution%distri_vec(:)%profiles_1d%pow_coll_e (vecflt_type) (7.9.5.1.14)
therm_src (2678)	distribution%distri_vec(:)%profiles_1d%therm_src (dist_src_snk_vol) (7.9.5.1.166)
particles (2681)	distribution%distri_vec(:)%profiles_1d%therm_src%particles (vecflt_type) (7.9.5.1.14)
power (2681)	distribution%distri_vec(:)%profiles_1d%therm_src%power (vecflt_type) (7.9.5.1.14)
torque (2681)	distribution%distri_vec(:)%profiles_1d%therm_src%torque (vecflt_type) (7.9.5.1.14)
losses (2678)	distribution%distri_vec(:)%profiles_1d%losses (dist_prof_vol_dist_losses) (7.9.5.1.160)
orb_loss (2675)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss (dist_src_snk_vol) (7.9.5.1.166)
particles (2681)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%particles (vecflt_type) (7.9.5.1.14)
power (2681)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%power (vecflt_type) (7.9.5.1.14)
torque (2681)	distribution%distri_vec(:)%profiles_1d%losses%orb_loss%torque (vecflt_type) (7.9.5.1.14)
neutr_loss (2675)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss (dist_src_snk_vol) (7.9.5.1.166)
particles (2681)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%particles (vecflt_type) (7.9.5.1.14)
power (2681)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%power (vecflt_type) (7.9.5.1.14)
torque (2681)	distribution%distri_vec(:)%profiles_1d%losses%neutr_loss%torque (vecflt_type) (7.9.5.1.14)
cur_fp (2678)	distribution%distri_vec(:)%profiles_1d%cur_fp (vecflt_type) (7.9.5.1.14)
cur_dr (2678)	distribution%distri_vec(:)%profiles_1d%cur_dr (vecflt_type) (7.9.5.1.14)
trq_i (2678)	distribution%distri_vec(:)%profiles_1d%trq_i (matflt_type) (7.9.5.1.12)
trq_e (2678)	distribution%distri_vec(:)%profiles_1d%trq_e (vecflt_type) (7.9.5.1.14)
trq_j_rxb (2678)	distribution%distri_vec(:)%profiles_1d%trq_j_rxb (vecflt_type) (7.9.5.1.14)
nucl_reac_th (2678)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th (dist_prof_vol_nucl_reac_th) (7.9.5.1.162)
rate (2677)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th%rate (matflt_type) (7.9.5.1.12)
power (2677)	distribution%distri_vec(:)%profiles_1d%nucl_reac_th%power (matflt_type) (7.9.5.1.12)
nucl_reac_sf (2678)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf (dist_prof_vol_nucl_reac_sf) (7.9.5.1.161)
rate (2676)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf%rate (vecflt_type) (7.9.5.1.14)
power (2676)	distribution%distri_vec(:)%profiles_1d%nucl_reac_sf%power (vecflt_type) (7.9.5.1.14)
dist_func (2683)	distribution%distri_vec(:)%dist_func (dist_func) (7.9.5.1.147)
is_delta_f (2662)	distribution%distri_vec(:)%dist_func%is_delta_f (integer) (7.9.5.1.3)
markers (2662)	distribution%distri_vec(:)%dist_func%markers (weighted_markers) (7.9.5.1.453)
variable_ids (2968)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:) (identifier) (7.9.5.1.231)
id (2746)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%id (string) (7.9.5.1.4)
flag (2746)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%flag (integer) (7.9.5.1.3)
description (2746)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%description (string) (7.9.5.1.4)
coord (2968)	distribution%distri_vec(:)%dist_func%markers%coord (matflt_type) (7.9.5.1.12)
weight (2968)	distribution%distri_vec(:)%dist_func%markers%weight (vecflt_type) (7.9.5.1.14)
f_expan_topo (2662)	distribution%distri_vec(:)%dist_func%f_expan_topo(:) (dist_ff) (7.9.5.1.146)
grid_info (2661)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info (dist_grid_info) (7.9.5.1.150)
grid_type (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_type (integer) (7.9.5.1.3)
ngriddim (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%ngriddim (integer) (7.9.5.1.3)
grid_coord (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_coord (vecint_type) (7.9.5.1.15)
thin_orbits (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%thin_orbits (integer) (7.9.5.1.3)
topology (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%topology (string) (7.9.5.1.4)

omnigen_surf (2665)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:) (omnigen_surf) (7.9.5.1.280)
rz (2795)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz (rz1D) (7.9.5.1.342)
r (2857)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%r (vecflt_type) (7.9.5.1.14)
z (2857)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%z (vecflt_type) (7.9.5.1.14)
s (2795)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%s (vecflt_type) (7.9.5.1.14)
topo_regions (2661)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:) (topo_regions) (7.9.5.1.412)
ind_omnigen (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%ind_omnigen (integer) (7.9.5.1.3)
dim1 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim1 (array6dflt_type) (7.9.5.1.10)
dim2 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim2 (array6dflt_type) (7.9.5.1.10)
dim3 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim3 (array6dflt_type) (7.9.5.1.10)
dim4 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim4 (array6dflt_type) (7.9.5.1.10)
dim5 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim5 (array6dflt_type) (7.9.5.1.10)
dim6 (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim6 (array6dflt_type) (7.9.5.1.10)
jacobian (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%jacobian (array6dflt_type) (7.9.5.1.10)
distfunc (2927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%distfunc (array6dflt_type) (7.9.5.1.10)
f_expansion (2662)	distribution%distri_vec(:)%dist_func%f_expansion(:) (f_expansion) (7.9.5.1.200)
grid (2715)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid (complexgrid) (7.9.5.1.88)
uid (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%uid (integer) (7.9.5.1.3)
id (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%id (string) (7.9.5.1.4)
spaces (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:) (complexgrid_space) (7.9.5.1.97)
geotype (2612)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotype (vecint_type) (7.9.5.1.15)
geotypeid (2612)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.5.1.16)
coordtype (2612)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%coordtype (matint_type) (7.9.5.1.13)
objects (2612)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:) (objects) (7.9.5.1.277)
boundary (2792)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.5.1.13)
neighbour (2792)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.5.1.7)
geo (2792)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.5.1.8)
measure (2792)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.5.1.12)
xpoints (2612)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.5.1.15)
subgrids (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.5.1.98)
id (2613)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%id (string) (7.9.5.1.4)
list (2613)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.5.1.92)
cls (2607)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.5.1.15)
indset (2607)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.5.1.90)
range (2605)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.5.1.15)
ind (2605)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.5.1.15)
ind (2607)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.5.1.13)
metric (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric (complexgrid_metric) (7.9.5.1.91)
measure (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
g11 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.5.1.6)
g12 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.5.1.6)
g13 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.5.1.6)
g22 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.5.1.6)
g23 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.5.1.6)
g33 (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%griduid (integer) (7.9.5.1.3)

subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.5.1.6)
jacobian (2606)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.5.1.6)
geo (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:) (complexgrid_geo_global) (7.9.5.1.89)
geotype (2604)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotype (integer) (7.9.5.1.3)
geotypeid (2604)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotypeid (string) (7.9.5.1.4)
coordtype (2604)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%coordtype (vecint_type) (7.9.5.1.15)
geo_matrix (2604)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.5.1.6)
measure (2604)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
bases (2603)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%griduid (integer) (7.9.5.1.3)
label (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%label (string) (7.9.5.1.4)
comp (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%alignid (vecstring_type) (7.9.5.1.16)

basis (2614)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%basis (integer) (7.9.5.1.3)
values (2715)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%matrix (array3dflt_type) (7.9.5.1.6)
input_src (2683)	distribution%distri_vec(:)%input_src (dist_input_src) (7.9.5.1.151)
particle_src (2666)	distribution%distri_vec(:)%input_src%particle_src (dist_particle_src) (7.9.5.1.156)
total (2671)	distribution%distri_vec(:)%input_src%particle_src%total (dist_src_snk_tot) (7.9.5.1.165)
particles (2680)	distribution%distri_vec(:)%input_src%particle_src%total%particles (float) (7.9.5.1.2)
power (2680)	distribution%distri_vec(:)%input_src%particle_src%total%power (float) (7.9.5.1.2)
torque (2680)	distribution%distri_vec(:)%input_src%particle_src%total%torque (float) (7.9.5.1.2)
volume_intgr (2671)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr (dist_src_snk_vol) (7.9.5.1.166)
particles (2681)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%particles (vecflt_type) (7.9.5.1.14)
power (2681)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%power (vecflt_type) (7.9.5.1.14)
torque (2681)	distribution%distri_vec(:)%input_src%particle_src%volume_intgr%torque (vecflt_type) (7.9.5.1.14)
flux_surf_av (2671)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av (dist_src_snk_surf) (7.9.5.1.164)
particlesd (2679)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%particlesd (vecflt_type) (7.9.5.1.14)
powerd (2679)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%powerd (vecflt_type) (7.9.5.1.14)
torqued (2679)	distribution%distri_vec(:)%input_src%particle_src%flux_surf_av%torqued (vecflt_type) (7.9.5.1.14)
wave_src (2666)	distribution%distri_vec(:)%input_src%wave_src (dist_wave_src) (7.9.5.1.167)
type (2682)	distribution%distri_vec(:)%input_src%wave_src%type (string) (7.9.5.1.4)
wave_power (2682)	distribution%distri_vec(:)%input_src%wave_src%wave_power (float) (7.9.5.1.2)
wave_powerd (2682)	distribution%distri_vec(:)%input_src%wave_src%wave_powerd (vecflt_type) (7.9.5.1.14)
nucl_reac (2683)	distribution%distri_vec(:)%nucl_reac (dist_nucl_reac) (7.9.5.1.153)
point_reac (2668)	distribution%distri_vec(:)%nucl_reac%point_reac (vecint_type) (7.9.5.1.15)
id_reac (2668)	distribution%distri_vec(:)%nucl_reac%id_reac (vecint_type) (7.9.5.1.15)
codeparam (2683)	distribution%distri_vec(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	distribution%distri_vec(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	distribution%distri_vec(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	distribution%distri_vec(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	distribution%distri_vec(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	distribution%distri_vec(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2545)	distribution%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	distribution%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	distribution%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	distribution%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	distribution%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	distribution%codeparam%output_flag (integer) (7.9.5.1.3)
time (2545)	distribution%time (float) (7.9.5.1.2)

7.9.5.2.13 distsource

datainfo (2546)	distsource%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	distsource%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	distsource%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	distsource%datainfo%source (string) (7.9.5.1.4)
comment (2653)	distsource%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	distsource%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	distsource%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	distsource%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	distsource%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	distsource%datainfo%whatref%user (string) (7.9.5.1.4)

machine (2969)	distsource%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	distsource%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	distsource%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	distsource%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	distsource%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	distsource%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	distsource%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	distsource%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	distsource%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2546)	distsource%composition (composition) (7.9.5.1.101)
amn (2616)	distsource%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	distsource%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	distsource%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	distsource%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	distsource%composition%label (vecstring_type) (7.9.5.1.16)
compositions (2546)	distsource%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	distsource%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	distsource%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	distsource%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	distsource%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	distsource%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	distsource%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	distsource%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	distsource%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	distsource%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	distsource%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	distsource%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	distsource%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	distsource%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	distsource%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	distsource%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	distsource%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	distsource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	distsource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	distsource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	distsource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	distsource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	distsource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	distsource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	distsource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	distsource%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	distsource%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	distsource%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	distsource%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	distsource%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	distsource%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	distsource%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	distsource%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	distsource%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	distsource%compositions%signature%description (string) (7.9.5.1.4)
source (2546)	distsource%source(:) (distsource_source) (7.9.5.1.173)
source_id (2688)	distsource%source(:)%source_id(:) (enum_instance) (7.9.5.1.190)
type (2705)	distsource%source(:)%source_id(:)%type (identifier) (7.9.5.1.231)
id (2746)	distsource%source(:)%source_id(:)%type%id (string) (7.9.5.1.4)
flag (2746)	distsource%source(:)%source_id(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	distsource%source(:)%source_id(:)%type%description (string) (7.9.5.1.4)
name (2705)	distsource%source(:)%source_id(:)%name (string) (7.9.5.1.4)
index (2705)	distsource%source(:)%source_id(:)%index (integer) (7.9.5.1.3)
src_spec (2688)	distsource%source(:)%src_spec (integer) (7.9.5.1.3)
gyro_type (2688)	distsource%source(:)%gyro_type (integer) (7.9.5.1.3)
global_param (2688)	distsource%source(:)%global_param (distsource_global_param) (7.9.5.1.169)

src_pow (2684)	distsource%source(:)%global_param%src_pow (exp0D) (7.9.5.1.197)
value (2712)	distsource%source(:)%global_param%src_pow%value (float) (7.9.5.1.2)
abserror (2712)	distsource%source(:)%global_param%src_pow%abserror (float) (7.9.5.1.2)
relerror (2712)	distsource%source(:)%global_param%src_pow%relerror (float) (7.9.5.1.2)
src_rate (2684)	distsource%source(:)%global_param%src_rate (exp0D) (7.9.5.1.197)
value (2712)	distsource%source(:)%global_param%src_rate%value (float) (7.9.5.1.2)
abserror (2712)	distsource%source(:)%global_param%src_rate%abserror (float) (7.9.5.1.2)
relerror (2712)	distsource%source(:)%global_param%src_rate%relerror (float) (7.9.5.1.2)
profiles_1d (2688)	distsource%source(:)%profiles_1d (distsource_profiles_1d) (7.9.5.1.171)
rho_tor_norm (2686)	distsource%source(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2686)	distsource%source(:)%profiles_1d%rho_tor (vecflt_type) (7.9.5.1.14)
psi (2686)	distsource%source(:)%profiles_1d%psi (vecflt_type) (7.9.5.1.14)
pow_den (2686)	distsource%source(:)%profiles_1d%pow_den (exp1D) (7.9.5.1.198)
value (2713)	distsource%source(:)%profiles_1d%pow_den%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	distsource%source(:)%profiles_1d%pow_den%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	distsource%source(:)%profiles_1d%pow_den%relerror (vecflt_type) (7.9.5.1.14)
src_rate (2686)	distsource%source(:)%profiles_1d%src_rate (exp1D) (7.9.5.1.198)
value (2713)	distsource%source(:)%profiles_1d%src_rate%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	distsource%source(:)%profiles_1d%src_rate%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	distsource%source(:)%profiles_1d%src_rate%relerror (vecflt_type) (7.9.5.1.14)
profiles_2d (2688)	distsource%source(:)%profiles_2d (distsource_profiles_2d) (7.9.5.1.172)
grid_coord (2687)	distsource%source(:)%profiles_2d%grid_coord (vecint_type) (7.9.5.1.15)
dim1 (2687)	distsource%source(:)%profiles_2d%dim1 (matflt_type) (7.9.5.1.12)
dim2 (2687)	distsource%source(:)%profiles_2d%dim2 (matflt_type) (7.9.5.1.12)
g11 (2687)	distsource%source(:)%profiles_2d%g11 (matflt_type) (7.9.5.1.12)
g12 (2687)	distsource%source(:)%profiles_2d%g12 (matflt_type) (7.9.5.1.12)
g21 (2687)	distsource%source(:)%profiles_2d%g21 (matflt_type) (7.9.5.1.12)
g22 (2687)	distsource%source(:)%profiles_2d%g22 (matflt_type) (7.9.5.1.12)
pow_den (2687)	distsource%source(:)%profiles_2d%pow_den (exp2D) (7.9.5.1.199)
value (2714)	distsource%source(:)%profiles_2d%pow_den%value (matflt_type) (7.9.5.1.12)
abserror (2714)	distsource%source(:)%profiles_2d%pow_den%abserror (matflt_type) (7.9.5.1.12)
relerror (2714)	distsource%source(:)%profiles_2d%pow_den%relerror (matflt_type) (7.9.5.1.12)
src_rate (2687)	distsource%source(:)%profiles_2d%src_rate (exp2D) (7.9.5.1.199)
value (2714)	distsource%source(:)%profiles_2d%src_rate%value (matflt_type) (7.9.5.1.12)
abserror (2714)	distsource%source(:)%profiles_2d%src_rate%abserror (matflt_type) (7.9.5.1.12)
relerror (2714)	distsource%source(:)%profiles_2d%src_rate%relerror (matflt_type) (7.9.5.1.12)
line_srcprof (2688)	distsource%source(:)%line_srcprof(:) (distsource_line_src_prof) (7.9.5.1.170)
rho_tor (2685)	distsource%source(:)%line_srcprof(:)%rho_tor (vecflt_type) (7.9.5.1.14)
rho_tor_norm (2685)	distsource%source(:)%line_srcprof(:)%rho_tor_norm (vecflt_type) (7.9.5.1.14)
psi (2685)	distsource%source(:)%line_srcprof(:)%psi (vecflt_type) (7.9.5.1.14)
R (2685)	distsource%source(:)%line_srcprof(:)%R (vecflt_type) (7.9.5.1.14)
Z (2685)	distsource%source(:)%line_srcprof(:)%Z (vecflt_type) (7.9.5.1.14)
theta (2685)	distsource%source(:)%line_srcprof(:)%theta (vecflt_type) (7.9.5.1.14)
theta_id (2685)	distsource%source(:)%line_srcprof(:)%theta_id (vecflt_type) (7.9.5.1.14)
th2th_pol (2685)	distsource%source(:)%line_srcprof(:)%th2th_pol (matflt_type) (7.9.5.1.12)
pitch (2685)	distsource%source(:)%line_srcprof(:)%pitch (vecflt_type) (7.9.5.1.14)
energy (2685)	distsource%source(:)%line_srcprof(:)%energy (vecflt_type) (7.9.5.1.14)
ang_momentum (2685)	distsource%source(:)%line_srcprof(:)%ang_momentum (vecflt_type) (7.9.5.1.14)
src_rate (2685)	distsource%source(:)%line_srcprof(:)%src_rate (vecflt_type) (7.9.5.1.14)
source_rate (2688)	distsource%source(:)%source_rate (source_rate) (7.9.5.1.388)
grid (2903)	distsource%source(:)%source_rate%grid (complexgrid) (7.9.5.1.88)
uid (2603)	distsource%source(:)%source_rate%grid%uid (integer) (7.9.5.1.3)
id (2603)	distsource%source(:)%source_rate%grid%id (string) (7.9.5.1.4)
spaces (2603)	distsource%source(:)%source_rate%grid%spaces(:) (complexgrid_space) (7.9.5.1.97)
geotype (2612)	distsource%source(:)%source_rate%grid%spaces(:)%geotype (vecint_type) (7.9.5.1.15)
geotypeid (2612)	distsource%source(:)%source_rate%grid%spaces(:)%geotypeid (vecstring_type) (7.9.5.1.16)
coordtype (2612)	distsource%source(:)%source_rate%grid%spaces(:)%coordtype (matint_type) (7.9.5.1.13)
objects (2612)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:) (objects) (7.9.5.1.277)
boundary (2792)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.5.1.13)
neighbour (2792)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.5.1.7)

geo (2792)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.5.1.8)
measure (2792)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.5.1.12)
xpoints (2612)	distsource%source(:)%source_rate%grid%spaces(:)%xpoints (vecint_type) (7.9.5.1.15)
subgrids (2603)	distsource%source(:)%source_rate%grid%subgrids(:) (complexgrid_subgrid) (7.9.5.1.98)
id (2613)	distsource%source(:)%source_rate%grid%subgrids(:)%id (string) (7.9.5.1.4)
list (2613)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.5.1.92)
cls (2607)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.5.1.15)
indset (2607)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.5.1.90)
range (2605)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.5.1.15)
ind (2605)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.5.1.15)
ind (2607)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.5.1.13)
metric (2603)	distsource%source(:)%source_rate%grid%metric (complexgrid_metric) (7.9.5.1.91)
measure (2606)	distsource%source(:)%source_rate%grid%metric%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
g11 (2606)	distsource%source(:)%source_rate%grid%metric%g11(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g11(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g11(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g11(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g11(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.5.1.6)
g12 (2606)	distsource%source(:)%source_rate%grid%metric%g12(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g12(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g12(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g12(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g12(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.5.1.6)
g13 (2606)	distsource%source(:)%source_rate%grid%metric%g13(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g13(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g13(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g13(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g13(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.5.1.6)
g22 (2606)	distsource%source(:)%source_rate%grid%metric%g22(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g22(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g22(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g22(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g22(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.5.1.6)
g23 (2606)	distsource%source(:)%source_rate%grid%metric%g23(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g23(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g23(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g23(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g23(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.5.1.6)
g33 (2606)	distsource%source(:)%source_rate%grid%metric%g33(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%g33(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%g33(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%metric%g33(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%g33(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.5.1.6)
jacobian (2606)	distsource%source(:)%source_rate%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%subgrid (integer) (7.9.5.1.3)

scalar (2608)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.5.1.6)
geo (2603)	distsource%source(:)%source_rate%grid%geo(:) (complexgrid_geo_global) (7.9.5.1.89)
geotype (2604)	distsource%source(:)%source_rate%grid%geo(:)%geotype (integer) (7.9.5.1.3)
geotypeid (2604)	distsource%source(:)%source_rate%grid%geo(:)%geotypeid (string) (7.9.5.1.4)
coordtype (2604)	distsource%source(:)%source_rate%grid%geo(:)%coordtype (vecint_type) (7.9.5.1.15)
geo_matrix (2604)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.5.1.6)
measure (2604)	distsource%source(:)%source_rate%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
bases (2603)	distsource%source(:)%source_rate%grid%bases(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	distsource%source(:)%source_rate%grid%bases(:)%griduid (integer) (7.9.5.1.3)
label (2614)	distsource%source(:)%source_rate%grid%bases(:)%label (string) (7.9.5.1.4)
comp (2614)	distsource%source(:)%source_rate%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	distsource%source(:)%source_rate%grid%bases(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	distsource%source(:)%source_rate%grid%bases(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	distsource%source(:)%source_rate%grid%bases(:)%basis (integer) (7.9.5.1.3)
value (2903)	distsource%source(:)%source_rate%value (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	distsource%source(:)%source_rate%value%griduid (integer) (7.9.5.1.3)
subgrid (2608)	distsource%source(:)%source_rate%value%subgrid (integer) (7.9.5.1.3)
scalar (2608)	distsource%source(:)%source_rate%value%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	distsource%source(:)%source_rate%value%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	distsource%source(:)%source_rate%value%matrix (array3dflt_type) (7.9.5.1.6)
source_grid (2688)	distsource%source(:)%source_grid (source_on_grid) (7.9.5.1.387)
grid_info (2902)	distsource%source(:)%source_grid%grid_info (grid_info) (7.9.5.1.227)
grid_type (2742)	distsource%source(:)%source_grid%grid_info%grid_type (integer) (7.9.5.1.3)
ngriddim (2742)	distsource%source(:)%source_grid%grid_info%ngriddim (integer) (7.9.5.1.3)
grid_coord (2742)	distsource%source(:)%source_grid%grid_info%grid_coord (vecint_type) (7.9.5.1.15)
discrete_dims (2742)	distsource%source(:)%source_grid%grid_info%discrete_dims (vecint_type) (7.9.5.1.15)
dim1 (2902)	distsource%source(:)%source_grid%dim1 (array6dflt_type) (7.9.5.1.10)
dim2 (2902)	distsource%source(:)%source_grid%dim2 (array6dflt_type) (7.9.5.1.10)
dim3 (2902)	distsource%source(:)%source_grid%dim3 (array6dflt_type) (7.9.5.1.10)
dim4 (2902)	distsource%source(:)%source_grid%dim4 (array6dflt_type) (7.9.5.1.10)
dim5 (2902)	distsource%source(:)%source_grid%dim5 (array6dflt_type) (7.9.5.1.10)
dim6 (2902)	distsource%source(:)%source_grid%dim6 (array6dflt_type) (7.9.5.1.10)
jacobian (2902)	distsource%source(:)%source_grid%jacobian (array6dflt_type) (7.9.5.1.10)
source (2902)	distsource%source(:)%source_grid%source (array6dflt_type) (7.9.5.1.10)
markers (2688)	distsource%source(:)%markers (weighted_markers) (7.9.5.1.453)
variable_ids (2968)	distsource%source(:)%markers%variable_ids(:) (identifier) (7.9.5.1.231)
id (2746)	distsource%source(:)%markers%variable_ids(:)%id (string) (7.9.5.1.4)
flag (2746)	distsource%source(:)%markers%variable_ids(:)%flag (integer) (7.9.5.1.3)
description (2746)	distsource%source(:)%markers%variable_ids(:)%description (string) (7.9.5.1.4)
coord (2968)	distsource%source(:)%markers%coord (matflt_type) (7.9.5.1.12)

weight (2968)	distsource%source(:)%markers%weight (vecflt_type) (7.9.5.1.14)
codeparam (2688)	distsource%source(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	distsource%source(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	distsource%source(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	distsource%source(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	distsource%source(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	distsource%source(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2546)	distsource%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	distsource%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	distsource%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	distsource%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	distsource%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	distsource%codeparam%output_flag (integer) (7.9.5.1.3)
time (2546)	distsource%time (float) (7.9.5.1.2)

7.9.5.2.14 ecediag

datainfo (2547)	ecediag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	ecediag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	ecediag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	ecediag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	ecediag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	ecediag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	ecediag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	ecediag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	ecediag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	ecediag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	ecediag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	ecediag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	ecediag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	ecediag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	ecediag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	ecediag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	ecediag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	ecediag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	ecediag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2547)	ecediag%setup (ecesetup) (7.9.5.1.177)
frequency (2692)	ecediag%setup%frequency (vecflt_type) (7.9.5.1.14)
los (2692)	ecediag%setup%los (setup_line) (7.9.5.1.379)
pivot_point (2894)	ecediag%setup%los%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	ecediag%setup%los%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	ecediag%setup%los%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	ecediag%setup%los%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang1 (2894)	ecediag%setup%los%horchordang1 (vecflt_type) (7.9.5.1.14)
verchordang1 (2894)	ecediag%setup%los%verchordang1 (vecflt_type) (7.9.5.1.14)
width (2894)	ecediag%setup%los%width (vecflt_type) (7.9.5.1.14)
second_point (2894)	ecediag%setup%los%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	ecediag%setup%los%second_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	ecediag%setup%los%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	ecediag%setup%los%second_point%phi (vecflt_type) (7.9.5.1.14)
horchordang2 (2894)	ecediag%setup%los%horchordang2 (vecflt_type) (7.9.5.1.14)
verchordang2 (2894)	ecediag%setup%los%verchordang2 (vecflt_type) (7.9.5.1.14)
third_point (2894)	ecediag%setup%los%third_point (rzphi1D) (7.9.5.1.348)
r (2863)	ecediag%setup%los%third_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	ecediag%setup%los%third_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	ecediag%setup%los%third_point%phi (vecflt_type) (7.9.5.1.14)
nchordpoints (2894)	ecediag%setup%los%nchordpoints (integer) (7.9.5.1.3)
measure (2547)	ecediag%measure (ecemeasure) (7.9.5.1.176)
harmonic (2691)	ecediag%measure%harmonic (integer) (7.9.5.1.3)
position (2691)	ecediag%measure%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	ecediag%measure%position%r (exp1D) (7.9.5.1.198)

value (2713)	ecediag%measure%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ecediag%measure%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ecediag%measure%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	ecediag%measure%position%z (exp1D) (7.9.5.1.198)
value (2713)	ecediag%measure%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ecediag%measure%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ecediag%measure%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	ecediag%measure%position%phi (exp1D) (7.9.5.1.198)
value (2713)	ecediag%measure%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ecediag%measure%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ecediag%measure%position%phi%relerror (vecflt_type) (7.9.5.1.14)
te (2691)	ecediag%measure%te (exp1D) (7.9.5.1.198)
value (2713)	ecediag%measure%te%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ecediag%measure%te%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ecediag%measure%te%relerror (vecflt_type) (7.9.5.1.14)
time (2547)	ecediag%time (float) (7.9.5.1.2)

7.9.5.2.15 edge

datainfo (2548)	edge%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	edge%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	edge%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	edge%datainfo%source (string) (7.9.5.1.4)
comment (2653)	edge%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	edge%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	edge%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	edge%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	edge%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	edge%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	edge%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	edge%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	edge%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	edge%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	edge%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	edge%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	edge%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	edge%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	edge%datainfo%putinfo%rights (string) (7.9.5.1.4)
grid (2548)	edge%grid (complexgrid) (7.9.5.1.88)
uid (2603)	edge%grid%uid (integer) (7.9.5.1.3)
id (2603)	edge%grid%id (string) (7.9.5.1.4)
spaces (2603)	edge%grid%spaces(:) (complexgrid_space) (7.9.5.1.97)
geotype (2612)	edge%grid%spaces(:)%geotype (vecint_type) (7.9.5.1.15)
geotypeid (2612)	edge%grid%spaces(:)%geotypeid (vecstring_type) (7.9.5.1.16)
coordtype (2612)	edge%grid%spaces(:)%coordtype (matint_type) (7.9.5.1.13)
objects (2612)	edge%grid%spaces(:)%objects(:) (objects) (7.9.5.1.277)
boundary (2792)	edge%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.5.1.13)
neighbour (2792)	edge%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.5.1.7)
geo (2792)	edge%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.5.1.8)
measure (2792)	edge%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.5.1.12)
xpoints (2612)	edge%grid%spaces(:)%xpoints (vecint_type) (7.9.5.1.15)
subgrids (2603)	edge%grid%subgrids(:) (complexgrid_subgrid) (7.9.5.1.98)
id (2613)	edge%grid%subgrids(:)%id (string) (7.9.5.1.4)
list (2613)	edge%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.5.1.92)
cls (2607)	edge%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.5.1.15)
indset (2607)	edge%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.5.1.90)
range (2605)	edge%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.5.1.15)
ind (2605)	edge%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.5.1.15)
ind (2607)	edge%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.5.1.13)
metric (2603)	edge%grid%metric (complexgrid_metric) (7.9.5.1.91)
measure (2606)	edge%grid%metric%measure(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	edge%grid%metric%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
g11 (2606)	edge%grid%metric%g11(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g11(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g11(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g11(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g11(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.5.1.6)
g12 (2606)	edge%grid%metric%g12(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g12(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g12(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g12(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g12(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.5.1.6)
g13 (2606)	edge%grid%metric%g13(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g13(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g13(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g13(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g13(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.5.1.6)
g22 (2606)	edge%grid%metric%g22(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g22(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g22(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g22(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g22(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.5.1.6)
g23 (2606)	edge%grid%metric%g23(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g23(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g23(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g23(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g23(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.5.1.6)
g33 (2606)	edge%grid%metric%g33(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%g33(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%g33(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%g33(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%g33(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.5.1.6)
jacobian (2606)	edge%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%metric%jacobian(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%metric%jacobian(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%metric%jacobian(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.5.1.6)
geo (2603)	edge%grid%geo(:) (complexgrid_geo_global) (7.9.5.1.89)
geotype (2604)	edge%grid%geo(:)%geotype (integer) (7.9.5.1.3)
geotypeid (2604)	edge%grid%geo(:)%geotypeid (string) (7.9.5.1.4)
coordtype (2604)	edge%grid%geo(:)%coordtype (vecint_type) (7.9.5.1.15)
geo_matrix (2604)	edge%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.5.1.6)
measure (2604)	edge%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%geo(:)%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%geo(:)%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.5.1.14)

vector (2608)	edge%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
bases (2603)	edge%grid%bases(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%grid%bases(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%grid%bases(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%grid%bases(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%grid%bases(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%grid%bases(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%grid%bases(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%grid%bases(:)%basis (integer) (7.9.5.1.3)
species (2548)	edge%species(:) (species_desc) (7.9.5.1.394)
label (2909)	edge%species(:)%label (string) (7.9.5.1.4)
amn (2909)	edge%species(:)%amn (float) (7.9.5.1.2)
zn (2909)	edge%species(:)%zn (float) (7.9.5.1.2)
zmin (2909)	edge%species(:)%zmin (float) (7.9.5.1.2)
zmax (2909)	edge%species(:)%zmax (float) (7.9.5.1.2)
compositions (2548)	edge%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	edge%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	edge%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	edge%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	edge%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	edge%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	edge%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	edge%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	edge%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	edge%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	edge%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	edge%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	edge%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	edge%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	edge%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	edge%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	edge%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	edge%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	edge%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	edge%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	edge%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	edge%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	edge%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	edge%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	edge%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	edge%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	edge%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	edge%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	edge%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	edge%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	edge%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	edge%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	edge%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	edge%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	edge%compositions%signature%description (string) (7.9.5.1.4)
fluid (2548)	edge%fluid (edge_fluid) (7.9.5.1.178)
ne (2693)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.5.1.180)
value (2695)	edge%fluid%ne%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%value(:)%scalar (vecflt_type) (7.9.5.1.14)

vector (2608)	edge%fluid%ne%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2695)	edge%fluid%ne%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2695)	edge%fluid%ne%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ne%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ne%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ne%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ne%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ne%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ne%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2695)	edge%fluid%ne%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ne%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ne%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ne%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ne%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ne%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ne%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2695)	edge%fluid%ne%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%ne%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ne%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ne%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ne%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ne%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%ne%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ne%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ne%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ne%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ne%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2695)	edge%fluid%ne%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ne%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ne%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ne%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ne%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ne%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
ni (2693)	edge%fluid%ni(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%ni(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	edge%fluid%ni(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%ni(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%ni(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ni(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ni(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ni(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ni(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ni(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ni(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%ni(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ni(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ni(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ni(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ni(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ni(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ni(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%ni(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%ni(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ni(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ni(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ni(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%ni(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ni(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ni(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ni(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%ni(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ni(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ni(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ni(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ni(:)%source(:)%vector (matflt_type) (7.9.5.1.12)

matrix (2608)	edge%fluid%ni(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
ve (2693)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.5.1.183)
griduid (2698)	edge%fluid%ve%griduid (integer) (7.9.5.1.3)
basis (2698)	edge%fluid%ve%basis (integer) (7.9.5.1.3)
comps (2698)	edge%fluid%ve%comps(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%ve%comps(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%ve%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%ve%comps(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ve%comps(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ve%comps(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ve%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ve%comps(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ve%comps(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ve%comps(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%ve%comps(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ve%comps(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ve%comps(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ve%comps(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ve%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ve%comps(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%ve%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%ve%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%ve%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)

alignid (2615)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%ve%comps(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ve%comps(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ve%comps(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ve%comps(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ve%comps(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ve%comps(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2698)	edge%fluid%ve%align (vecint_type) (7.9.5.1.15)
alignid (2698)	edge%fluid%ve%alignid (vecstring_type) (7.9.5.1.16)
vi (2693)	edge%fluid%vi(:) (edge_fluid_vector) (7.9.5.1.182)
griduid (2697)	edge%fluid%vi(:)%griduid (integer) (7.9.5.1.3)
basis (2697)	edge%fluid%vi(:)%basis (integer) (7.9.5.1.3)
align (2697)	edge%fluid%vi(:)%align (vecint_type) (7.9.5.1.15)
alignid (2697)	edge%fluid%vi(:)%alignid (vecstring_type) (7.9.5.1.16)
comps (2697)	edge%fluid%vi(:)%comps(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%vi(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%vi(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%vi(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%vi(:)%comps(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%vi(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%vi(:)%comps(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%vi(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)

alignid (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%vi(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%vi(:)%comps(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%vi(:)%comps(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%vi(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%vi(:)%comps(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%vi(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
te (2693)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.5.1.180)
value (2695)	edge%fluid%te%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2695)	edge%fluid%te%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2695)	edge%fluid%te%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%te%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%te%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%te%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%te%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%te%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%te%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2695)	edge%fluid%te%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%te%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%te%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%te%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%te%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%te%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%te%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2695)	edge%fluid%te%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%te%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%te%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%te%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)

vector (2608)	edge%fluid%te%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%te%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%te%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%te%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%te%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%te%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%te%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%te%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2695)	edge%fluid%te%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
ti (2693)	edge%fluid%ti(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%ti(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%ti(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%ti(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ti(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ti(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ti(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ti(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ti(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ti(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%ti(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ti(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ti(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ti(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ti(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ti(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ti(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%ti(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%ti(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ti(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ti(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ti(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%ti(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ti(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ti(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ti(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%ti(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
te_aniso (2693)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.5.1.183)
griduid (2698)	edge%fluid%te_aniso%griduid (integer) (7.9.5.1.3)
basis (2698)	edge%fluid%te_aniso%basis (integer) (7.9.5.1.3)
comps (2698)	edge%fluid%te_aniso%comps(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%te_aniso%comps(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%te_aniso%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%te_aniso%comps(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%te_aniso%comps(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%te_aniso%comps(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)

alignid (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%te_aniso%comps(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%te_aniso%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%te_aniso%comps(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%te_aniso%comps(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%te_aniso%comps(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%te_aniso%comps(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%te_aniso%comps(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%te_aniso%comps(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2698)	edge%fluid%te_aniso%align (vecint_type) (7.9.5.1.15)
alignid (2698)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.5.1.16)
ti_aniso (2693)	edge%fluid%ti_aniso(:) (edge_fluid_vector) (7.9.5.1.182)
griduid (2697)	edge%fluid%ti_aniso(:)%griduid (integer) (7.9.5.1.3)
basis (2697)	edge%fluid%ti_aniso(:)%basis (integer) (7.9.5.1.3)
align (2697)	edge%fluid%ti_aniso(:)%align (vecint_type) (7.9.5.1.15)
alignid (2697)	edge%fluid%ti_aniso(:)%alignid (vecstring_type) (7.9.5.1.16)
comps (2697)	edge%fluid%ti_aniso(:)%comps(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%ti_aniso(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%ti_aniso(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%align (vecint_type) (7.9.5.1.15)

alignid (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%ti_aniso(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
po (2693)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.5.1.180)
value (2695)	edge%fluid%po%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2695)	edge%fluid%po%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2695)	edge%fluid%po%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%po%flux(:)%griduid (integer) (7.9.5.1.3)

label (2614)	edge%fluid%po%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%po%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%po%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%po%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%po%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2695)	edge%fluid%po%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%po%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%po%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%po%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%po%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%po%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%po%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2695)	edge%fluid%po%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%po%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%po%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%po%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%po%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%po%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%po%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%po%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%po%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%po%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%po%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2695)	edge%fluid%po%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%po%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%po%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%po%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%po%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%po%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
j (2693)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.5.1.183)
griduid (2698)	edge%fluid%j%griduid (integer) (7.9.5.1.3)
basis (2698)	edge%fluid%j%basis (integer) (7.9.5.1.3)
comps (2698)	edge%fluid%j%comps(:) (edge_fluid_scalar) (7.9.5.1.179)
value (2694)	edge%fluid%j%comps(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2694)	edge%fluid%j%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)

subgrid (2608)	edge%fluid%j%comps(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
flux (2694)	edge%fluid%j%comps(:)%flux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%j%comps(:)%flux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%j%comps(:)%flux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%j%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%j%comps(:)%flux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%j%comps(:)%flux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%j%comps(:)%flux(:)%basis (integer) (7.9.5.1.3)
bndflux (2694)	edge%fluid%j%comps(:)%bndflux(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%j%comps(:)%bndflux(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%j%comps(:)%bndflux(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%j%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%j%comps(:)%bndflux(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%j%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%j%comps(:)%bndflux(:)%basis (integer) (7.9.5.1.3)
transpcoeff (2694)	edge%fluid%j%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.5.1.181)
d (2696)	edge%fluid%j%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%d%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.5.1.16)
v (2696)	edge%fluid%j%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%v%label (string) (7.9.5.1.4)
comp (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.5.1.15)
alignid (2615)	edge%fluid%j%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.5.1.16)
source (2694)	edge%fluid%j%comps(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%fluid%j%comps(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%j%comps(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%j%comps(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%j%comps(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%j%comps(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2698)	edge%fluid%j%align (vecint_type) (7.9.5.1.15)
alignid (2698)	edge%fluid%j%alignid (vecstring_type) (7.9.5.1.16)
b (2693)	edge%fluid%b(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%fluid%b(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%fluid%b(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%fluid%b(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	edge%fluid%b(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%fluid%b(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%fluid%b(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%fluid%b(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%fluid%b(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%fluid%b(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%fluid%b(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%fluid%b(:)%basis (integer) (7.9.5.1.3)
kinetic (2548)	edge%kinetic (edge_kinetic) (7.9.5.1.184)
f (2699)	edge%kinetic%f(:) (edge_kinetic_distribution) (7.9.5.1.185)
value (2700)	edge%kinetic%f(:)%value(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%kinetic%f(:)%value(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%kinetic%f(:)%value(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%kinetic%f(:)%value(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%kinetic%f(:)%value(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%kinetic%f(:)%value(:)%matrix (array3dflt_type) (7.9.5.1.6)
bndvalue (2700)	edge%kinetic%f(:)%bndvalue(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%kinetic%f(:)%bndvalue(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%kinetic%f(:)%bndvalue(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%kinetic%f(:)%bndvalue(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%kinetic%f(:)%bndvalue(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%kinetic%f(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.5.1.6)
fluxes (2700)	edge%kinetic%f(:)%fluxes(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	edge%kinetic%f(:)%fluxes(:)%griduid (integer) (7.9.5.1.3)
label (2614)	edge%kinetic%f(:)%fluxes(:)%label (string) (7.9.5.1.4)
comp (2614)	edge%kinetic%f(:)%fluxes(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%kinetic%f(:)%fluxes(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%kinetic%f(:)%fluxes(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%kinetic%f(:)%fluxes(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%kinetic%f(:)%fluxes(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%kinetic%f(:)%fluxes(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	edge%kinetic%f(:)%fluxes(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	edge%kinetic%f(:)%fluxes(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	edge%kinetic%f(:)%fluxes(:)%basis (integer) (7.9.5.1.3)
source (2700)	edge%kinetic%f(:)%source(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	edge%kinetic%f(:)%source(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	edge%kinetic%f(:)%source(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	edge%kinetic%f(:)%source(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	edge%kinetic%f(:)%source(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	edge%kinetic%f(:)%source(:)%matrix (array3dflt_type) (7.9.5.1.6)
codeparam (2548)	edge%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	edge%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	edge%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	edge%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	edge%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	edge%codeparam%output_flag (integer) (7.9.5.1.3)
time (2548)	edge%time (float) (7.9.5.1.2)

7.9.5.2.16 efcc

datainfo (2549)	efcc%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	efcc%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	efcc%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	efcc%datainfo%source (string) (7.9.5.1.4)
comment (2653)	efcc%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	efcc%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	efcc%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	efcc%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	efcc%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	efcc%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	efcc%datainfo%whatref%machine (string) (7.9.5.1.4)

shot (2969)	efcc%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	efcc%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	efcc%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	efcc%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	efcc%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	efcc%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	efcc%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	efcc%datainfo%putinfo%rights (string) (7.9.5.1.4)
coil (2549)	efcc%coil(:) (coil) (7.9.5.1.86)
desc_coils (2601)	efcc%coil(:)%desc_coils (desc_coils) (7.9.5.1.140)
name (2655)	efcc%coil(:)%desc_coils%name (string) (7.9.5.1.4)
res (2655)	efcc%coil(:)%desc_coils%res (float) (7.9.5.1.2)
nturns (2655)	efcc%coil(:)%desc_coils%nturns (integer) (7.9.5.1.3)
closed (2655)	efcc%coil(:)%desc_coils%closed (string) (7.9.5.1.4)
edges (2655)	efcc%coil(:)%desc_coils%edges(:) (edges) (7.9.5.1.186)
edge_rzphi (2701)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi (rzphi1D) (7.9.5.1.348)
r (2863)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%r (vecflt_type) (7.9.5.1.14)
z (2863)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%z (vecflt_type) (7.9.5.1.14)
phi (2863)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%phi (vecflt_type) (7.9.5.1.14)
coilcurrent (2601)	efcc%coil(:)%coilcurrent (exp1D) (7.9.5.1.198)
value (2713)	efcc%coil(:)%coilcurrent%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	efcc%coil(:)%coilcurrent%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	efcc%coil(:)%coilcurrent%relerror (vecflt_type) (7.9.5.1.14)
coilvoltage (2601)	efcc%coil(:)%coilvoltage (exp1D) (7.9.5.1.198)
value (2713)	efcc%coil(:)%coilvoltage%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	efcc%coil(:)%coilvoltage%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	efcc%coil(:)%coilvoltage%relerror (vecflt_type) (7.9.5.1.14)
time (2549)	efcc%time (float) (7.9.5.1.2)
codeparam (2549)	efcc%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	efcc%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	efcc%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	efcc%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	efcc%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	efcc%codeparam%output_flag (integer) (7.9.5.1.3)

7.9.5.2.17 equilibrium

datainfo (2550)	equilibrium%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	equilibrium%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	equilibrium%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	equilibrium%datainfo%source (string) (7.9.5.1.4)
comment (2653)	equilibrium%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	equilibrium%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	equilibrium%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	equilibrium%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	equilibrium%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	equilibrium%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	equilibrium%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	equilibrium%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	equilibrium%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	equilibrium%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	equilibrium%datainfo%putinfo%rights (string) (7.9.5.1.4)
eqconstraint (2550)	equilibrium%eqconstraint (eqconstraint) (7.9.5.1.191)
bpol (2706)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%bpol%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%bpol%time (float) (7.9.5.1.2)

exact (2709)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.5.1.14)
bvac_r (2706)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.5.1.193)
measured (2708)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.5.1.2)
source (2708)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.5.1.4)
time (2708)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.5.1.2)
exact (2708)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.5.1.3)
weight (2708)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.5.1.2)
sigma (2708)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.5.1.2)
calculated (2708)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.5.1.2)
chi2 (2708)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.5.1.2)
diamagflux (2706)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.5.1.193)
measured (2708)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.5.1.2)
source (2708)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.5.1.4)
time (2708)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.5.1.2)
exact (2708)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.5.1.3)
weight (2708)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.5.1.2)
sigma (2708)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.5.1.2)
calculated (2708)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.5.1.2)
chi2 (2708)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.5.1.2)
faraday (2706)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%faraday%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%faraday%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.5.1.14)
flux (2706)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%flux%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%flux%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.5.1.14)
i_plasma (2706)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.5.1.193)
measured (2708)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.5.1.2)
source (2708)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.5.1.4)
time (2708)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.5.1.2)
exact (2708)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.5.1.3)
weight (2708)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.5.1.2)
sigma (2708)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.5.1.2)
calculated (2708)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.5.1.2)
chi2 (2708)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.5.1.2)
isoflux (2706)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.5.1.237)
position (2752)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.5.1.342)
r (2857)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.5.1.14)
source (2752)	equilibrium%eqconstraint%isoflux%source (string) (7.9.5.1.4)
weight (2752)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.5.1.14)
sigma (2752)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.5.1.14)
calculated (2752)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2752)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.5.1.14)
jsurf (2706)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.5.1.14)

source (2709)	equilibrium%eqconstraint%jsurf%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%jsurf%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.5.1.14)
magnet_iron (2706)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.5.1.254)
mr (2769)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.5.1.14)
mz (2769)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.5.1.14)
mse (2706)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%mse%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%mse%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.5.1.14)
ne (2706)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%ne%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%ne%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.5.1.14)
pfcurrent (2706)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2709)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.5.1.14)
pressure (2706)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.5.1.194)
measured (2709)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.5.1.14)
source (2709)	equilibrium%eqconstraint%pressure%source (string) (7.9.5.1.4)
time (2709)	equilibrium%eqconstraint%pressure%time (float) (7.9.5.1.2)
exact (2709)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.5.1.15)
weight (2709)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.5.1.14)
sigma (2709)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.5.1.14)
calculated (2709)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.5.1.14)

chi2 (2709)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.5.1.14)
q (2706)	equilibrium%eqconstraint%q (q) (7.9.5.1.308)
qvalue (2823)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.5.1.14)
position (2823)	equilibrium%eqconstraint%q%position (rz1D) (7.9.5.1.342)
r (2857)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.5.1.14)
source (2823)	equilibrium%eqconstraint%q%source (string) (7.9.5.1.4)
exact (2823)	equilibrium%eqconstraint%q%exact (integer) (7.9.5.1.3)
weight (2823)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.5.1.14)
sigma (2823)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.5.1.14)
calculated (2823)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2823)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.5.1.14)
xpts (2706)	equilibrium%eqconstraint%xpts (xpts) (7.9.5.1.456)
position (2971)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.5.1.342)
r (2857)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.5.1.14)
source (2971)	equilibrium%eqconstraint%xpts%source (string) (7.9.5.1.4)
weight (2971)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.5.1.14)
sigma (2971)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.5.1.14)
calculated (2971)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.5.1.14)
chi2 (2971)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.5.1.14)
eqgeometry (2550)	equilibrium%eqgeometry (eqgeometry) (7.9.5.1.192)
source (2707)	equilibrium%eqgeometry%source (string) (7.9.5.1.4)
boundarytype (2707)	equilibrium%eqgeometry%boundarytype (integer) (7.9.5.1.3)
boundary (2707)	equilibrium%eqgeometry%boundary(:) (rz1Dexp) (7.9.5.1.344)
r (2859)	equilibrium%eqgeometry%boundary(:)%r (vecflt_type) (7.9.5.1.14)
z (2859)	equilibrium%eqgeometry%boundary(:)%z (vecflt_type) (7.9.5.1.14)
geom_axis (2707)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.5.1.2)
a_minor (2707)	equilibrium%eqgeometry%a_minor (float) (7.9.5.1.2)
elongation (2707)	equilibrium%eqgeometry%elongation (float) (7.9.5.1.2)
elong_upper (2707)	equilibrium%eqgeometry%elong_upper (float) (7.9.5.1.2)
elong_lower (2707)	equilibrium%eqgeometry%elong_lower (float) (7.9.5.1.2)
tria_upper (2707)	equilibrium%eqgeometry%tria_upper (float) (7.9.5.1.2)
tria_lower (2707)	equilibrium%eqgeometry%tria_lower (float) (7.9.5.1.2)
xpts (2707)	equilibrium%eqgeometry%xpts(:) (rz1Dexp) (7.9.5.1.344)
r (2859)	equilibrium%eqgeometry%xpts(:)%r (vecflt_type) (7.9.5.1.14)
z (2859)	equilibrium%eqgeometry%xpts(:)%z (vecflt_type) (7.9.5.1.14)
left_low_st (2707)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.5.1.2)
right_low_st (2707)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.5.1.2)
left_up_st (2707)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.5.1.2)
right_up_st (2707)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.5.1.2)
active_limit (2707)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%eqgeometry%active_limit%r (float) (7.9.5.1.2)
z (2856)	equilibrium%eqgeometry%active_limit%z (float) (7.9.5.1.2)
ang_lcms_upo (2707)	equilibrium%eqgeometry%ang_lcms_upo (float) (7.9.5.1.2)
ang_lcms_upi (2707)	equilibrium%eqgeometry%ang_lcms_upi (float) (7.9.5.1.2)
ang_lcms_lwo (2707)	equilibrium%eqgeometry%ang_lcms_lwo (float) (7.9.5.1.2)
ang_lcms_lwi (2707)	equilibrium%eqgeometry%ang_lcms_lwi (float) (7.9.5.1.2)
flush (2550)	equilibrium%flush (flush) (7.9.5.1.202)
datainfo (2717)	equilibrium%flush%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	equilibrium%flush%datainfo%dataprovider (string) (7.9.5.1.4)

putdate (2653)	equilibrium%flush%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	equilibrium%flush%datainfo%source (string) (7.9.5.1.4)
comment (2653)	equilibrium%flush%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	equilibrium%flush%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	equilibrium%flush%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	equilibrium%flush%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	equilibrium%flush%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	equilibrium%flush%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.5.1.4)
position (2717)	equilibrium%flush%position (rz1D) (7.9.5.1.342)
r (2857)	equilibrium%flush%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	equilibrium%flush%position%z (vecflt_type) (7.9.5.1.14)
coef (2717)	equilibrium%flush%coef (matflt_type) (7.9.5.1.12)
codeparam (2717)	equilibrium%flush%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	equilibrium%flush%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	equilibrium%flush%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	equilibrium%flush%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	equilibrium%flush%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	equilibrium%flush%codeparam%output_flag (integer) (7.9.5.1.3)
global_param (2550)	equilibrium%global_param (global_param) (7.9.5.1.225)
beta_pol (2740)	equilibrium%global_param%beta_pol (float) (7.9.5.1.2)
beta_tor (2740)	equilibrium%global_param%beta_tor (float) (7.9.5.1.2)
beta_normal (2740)	equilibrium%global_param%beta_normal (float) (7.9.5.1.2)
i_plasma (2740)	equilibrium%global_param%i_plasma (float) (7.9.5.1.2)
li (2740)	equilibrium%global_param%li (float) (7.9.5.1.2)
volume (2740)	equilibrium%global_param%volume (float) (7.9.5.1.2)
area (2740)	equilibrium%global_param%area (float) (7.9.5.1.2)
psi_ax (2740)	equilibrium%global_param%psi_ax (float) (7.9.5.1.2)
psi_bound (2740)	equilibrium%global_param%psi_bound (float) (7.9.5.1.2)
mag_axis (2740)	equilibrium%global_param%mag_axis (mag_axis) (7.9.5.1.253)
position (2768)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.5.1.341)
r (2856)	equilibrium%global_param%mag_axis%position%r (float) (7.9.5.1.2)
z (2856)	equilibrium%global_param%mag_axis%position%z (float) (7.9.5.1.2)
bphi (2768)	equilibrium%global_param%mag_axis%bphi (float) (7.9.5.1.2)
q (2768)	equilibrium%global_param%mag_axis%q (float) (7.9.5.1.2)
q_95 (2740)	equilibrium%global_param%q_95 (float) (7.9.5.1.2)
q_min (2740)	equilibrium%global_param%q_min (float) (7.9.5.1.2)
toroid_field (2740)	equilibrium%global_param%toroid_field (b0r0) (7.9.5.1.73)
r0 (2588)	equilibrium%global_param%toroid_field%r0 (float) (7.9.5.1.2)
b0 (2588)	equilibrium%global_param%toroid_field%b0 (float) (7.9.5.1.2)
w_mhd (2740)	equilibrium%global_param%w_mhd (float) (7.9.5.1.2)
gamma (2740)	equilibrium%global_param%gamma (float) (7.9.5.1.2)
profiles_1d (2550)	equilibrium%profiles_1d (profiles_1d) (7.9.5.1.305)
psi (2820)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.5.1.14)
phi (2820)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.5.1.14)
pressure (2820)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.5.1.14)
F_dia (2820)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.5.1.14)
pprime (2820)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.5.1.14)
ffprime (2820)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.5.1.14)
jphi (2820)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.5.1.14)
jparallel (2820)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.5.1.14)
q (2820)	equilibrium%profiles_1d%q (vecflt_type) (7.9.5.1.14)
r_inboard (2820)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.5.1.14)

r_outboard (2820)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.5.1.14)
rho_tor (2820)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.5.1.14)
dpsidrho_tor (2820)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.5.1.14)
rho_vol (2820)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.5.1.14)
beta_pol (2820)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.5.1.14)
li (2820)	equilibrium%profiles_1d%li (vecflt_type) (7.9.5.1.14)
elongation (2820)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.5.1.14)
tria_upper (2820)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.5.1.14)
tria_lower (2820)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.5.1.14)
volume (2820)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.5.1.14)
vprime (2820)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.5.1.14)
dvdrho (2820)	equilibrium%profiles_1d%dvdrho (vecflt_type) (7.9.5.1.14)
area (2820)	equilibrium%profiles_1d%area (vecflt_type) (7.9.5.1.14)
aprime (2820)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.5.1.14)
surface (2820)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.5.1.14)
ftrap (2820)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.5.1.14)
gm1 (2820)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.5.1.14)
gm2 (2820)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.5.1.14)
gm3 (2820)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.5.1.14)
gm4 (2820)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.5.1.14)
gm5 (2820)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.5.1.14)
gm6 (2820)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.5.1.14)
gm7 (2820)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.5.1.14)
gm8 (2820)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.5.1.14)
gm9 (2820)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.5.1.14)
b_av (2820)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.5.1.14)
b_min (2820)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.5.1.14)
b_max (2820)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.5.1.14)
omega (2820)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.5.1.14)
omegaprime (2820)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.5.1.14)
mach_a (2820)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.5.1.14)
phi_flow (2820)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.5.1.14)
s_flow (2820)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.5.1.14)
h_flow (2820)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.5.1.14)
rho_mass (2820)	equilibrium%profiles_1d%rho_mass (vecflt_type) (7.9.5.1.14)
profiles_2d (2550)	equilibrium%profiles_2d(:) (equilibrium_profiles_2d) (7.9.5.1.196)
grid_type (2711)	equilibrium%profiles_2d(:)%grid_type (vecstring_type) (7.9.5.1.16)
grid (2711)	equilibrium%profiles_2d(:)%grid (equilibrium_profiles2d_grid) (7.9.5.1.195)
dim1 (2710)	equilibrium%profiles_2d(:)%grid%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2710)	equilibrium%profiles_2d(:)%grid%dim2 (vecflt_type) (7.9.5.1.14)
connect (2710)	equilibrium%profiles_2d(:)%grid%connect (matint_type) (7.9.5.1.13)
r (2711)	equilibrium%profiles_2d(:)%r (matflt_type) (7.9.5.1.12)
z (2711)	equilibrium%profiles_2d(:)%z (matflt_type) (7.9.5.1.12)
psi (2711)	equilibrium%profiles_2d(:)%psi (matflt_type) (7.9.5.1.12)
theta (2711)	equilibrium%profiles_2d(:)%theta (matflt_type) (7.9.5.1.12)
phi (2711)	equilibrium%profiles_2d(:)%phi (matflt_type) (7.9.5.1.12)
jphi (2711)	equilibrium%profiles_2d(:)%jphi (matflt_type) (7.9.5.1.12)
jpar (2711)	equilibrium%profiles_2d(:)%jpar (matflt_type) (7.9.5.1.12)
br (2711)	equilibrium%profiles_2d(:)%br (matflt_type) (7.9.5.1.12)
bz (2711)	equilibrium%profiles_2d(:)%bz (matflt_type) (7.9.5.1.12)
bphi (2711)	equilibrium%profiles_2d(:)%bphi (matflt_type) (7.9.5.1.12)
vphi (2711)	equilibrium%profiles_2d(:)%vphi (matflt_type) (7.9.5.1.12)
vtheta (2711)	equilibrium%profiles_2d(:)%vtheta (matflt_type) (7.9.5.1.12)
rho_mass (2711)	equilibrium%profiles_2d(:)%rho_mass (matflt_type) (7.9.5.1.12)
pressure (2711)	equilibrium%profiles_2d(:)%pressure (matflt_type) (7.9.5.1.12)
temperature (2711)	equilibrium%profiles_2d(:)%temperature (matflt_type) (7.9.5.1.12)
coord_sys (2550)	equilibrium%coord_sys (coord_sys) (7.9.5.1.107)
grid_type (2622)	equilibrium%coord_sys%grid_type (string) (7.9.5.1.4)
grid (2622)	equilibrium%coord_sys%grid (reggrid) (7.9.5.1.337)
dim1 (2852)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2852)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.5.1.14)

jacobian (2622)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.5.1.12)
g_11 (2622)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.5.1.12)
g_12 (2622)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.5.1.12)
g_13 (2622)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.5.1.12)
g_22 (2622)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.5.1.12)
g_23 (2622)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.5.1.12)
g_33 (2622)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.5.1.12)
position (2622)	equilibrium%coord_sys%position (rz2D) (7.9.5.1.345)
r (2860)	equilibrium%coord_sys%position%r (matflt_type) (7.9.5.1.12)
z (2860)	equilibrium%coord_sys%position%z (matflt_type) (7.9.5.1.12)
time (2550)	equilibrium%time (float) (7.9.5.1.2)
codeparam (2550)	equilibrium%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	equilibrium%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	equilibrium%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	equilibrium%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	equilibrium%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	equilibrium%codeparam%output_flag (integer) (7.9.5.1.3)

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datainfo (2551)	fusiondiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	fusiondiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	fusiondiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	fusiondiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	fusiondiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	fusiondiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	fusiondiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	fusiondiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	fusiondiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	fusiondiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	fusiondiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	fusiondiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	fusiondiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	fusiondiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	fusiondiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
fus_product (2551)	fusiondiag%fus_product(:) (fusiondiag_fus_product) (7.9.5.1.220)
product (2735)	fusiondiag%fus_product(:)%product (string) (7.9.5.1.4)
reaction (2735)	fusiondiag%fus_product(:)%reaction (string) (7.9.5.1.4)
collimator (2735)	fusiondiag%fus_product(:)%collimator (fusiondiag_collimator) (7.9.5.1.211)
colli_circ (2726)	fusiondiag%fus_product(:)%collimator%colli_circ(:) (fusiondiag_colli_circ) (7.9.5.1.209)
name (2724)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%name (string) (7.9.5.1.4)
setup_line (2724)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line (setup_line) (7.9.5.1.379)
pivot_point (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang1 (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang1 (vecflt_type) (7.9.5.1.14)
verchordang1 (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang1 (vecflt_type) (7.9.5.1.14)
width (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%width (vecflt_type) (7.9.5.1.14)
second_point (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%r (vecflt_type) (7.9.5.1.14)

z (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%phi (vecflt_type) (7.9.5.1.14)
horchordang2 (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang2 (vecflt_type) (7.9.5.1.14)
verchordang2 (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang2 (vecflt_type) (7.9.5.1.14)
third_point (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%phi (vecflt_type) (7.9.5.1.14)
nchordpoints (2894)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%nchordpoints (integer) (7.9.5.1.3)
colliunit (2724)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:) (fusiondiag_colliunit_circ) (7.9.5.1.212)
radius (2727)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%radius (vecflt_type) (7.9.5.1.14)
centre (2727)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%phi (vecflt_type) (7.9.5.1.14)
colli_poly (2726)	fusiondiag%fus_product(:)%collimator%colli_poly(:) (fusiondiag_colli_poly) (7.9.5.1.210)
name (2725)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%name (string) (7.9.5.1.4)
setup_line (2725)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line (setup_line) (7.9.5.1.379)
pivot_point (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang1 (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang1 (vecflt_type) (7.9.5.1.14)
verchordang1 (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang1 (vecflt_type) (7.9.5.1.14)
width (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%width (vecflt_type) (7.9.5.1.14)
second_point (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%phi (vecflt_type) (7.9.5.1.14)
horchordang2 (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang2 (vecflt_type) (7.9.5.1.14)
verchordang2 (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang2 (vecflt_type) (7.9.5.1.14)
third_point (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point (rzphi1D) (7.9.5.1.348)
r (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%phi (vecflt_type) (7.9.5.1.14)
nchordpoints (2894)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%nchordpoints (integer) (7.9.5.1.3)
colliunit (2725)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:) (fusiondiag_colliunit_poly) (7.9.5.1.213)
dimension (2728)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%dimension (float) (7.9.5.1.2)

nodes (2728)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes (rzphi2D) (7.9.5.1.350)
r (2865)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%r (matflt_type) (7.9.5.1.12)
z (2865)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%z (matflt_type) (7.9.5.1.12)
phi (2865)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%phi (matflt_type) (7.9.5.1.12)
colli_3d (2726)	fusiondiag%fus_product(:)%collimator%colli_3d(:) (fusiondiag_colli_3d) (7.9.5.1.208)
name (2723)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%name (string) (7.9.5.1.4)
voxels (2723)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:) (fusiondiag_voxels) (7.9.5.1.223)
centre (2738)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre (rzphi0D) (7.9.5.1.347)
r (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%r (float) (7.9.5.1.2)
z (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%z (float) (7.9.5.1.2)
phi (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%phi (float) (7.9.5.1.2)
direction (2738)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction (rzphi0D) (7.9.5.1.347)
r (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%r (float) (7.9.5.1.2)
z (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%z (float) (7.9.5.1.2)
phi (2862)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%phi (float) (7.9.5.1.2)
volume (2738)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%volume (float) (7.9.5.1.2)
solid_angle (2738)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%solid_angle (float) (7.9.5.1.2)
counts (2735)	fusiondiag%fus_product(:)%counts (fusiondiag_counts) (7.9.5.1.214)
units (2729)	fusiondiag%fus_product(:)%counts%units (string) (7.9.5.1.4)
ct_chords (2729)	fusiondiag%fus_product(:)%counts%ct_chords(:) (fusiondiag_ct_chords) (7.9.5.1.215)
name (2730)	fusiondiag%fus_product(:)%counts%ct_chords(:)%name (vecstring_type) (7.9.5.1.16)
energy (2730)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy (exp0D) (7.9.5.1.197)
value (2712)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%value (float) (7.9.5.1.2)
abserror (2712)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%abserror (float) (7.9.5.1.2)
relerror (2712)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%relerror (float) (7.9.5.1.2)
measure (2730)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%relerror (vecflt_type) (7.9.5.1.14)
ct_energy (2729)	fusiondiag%fus_product(:)%counts%ct_energy(:) (fusiondiag_ct_energy) (7.9.5.1.216)
energy (2731)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%relerror (vecflt_type) (7.9.5.1.14)
measure (2731)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%relerror (vecflt_type) (7.9.5.1.14)
detect_ct (2729)	fusiondiag%fus_product(:)%counts%detect_ct(:) (fusiondiag_detect_ct_energy) (7.9.5.1.217)
energy (2732)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%relerror (vecflt_type) (7.9.5.1.14)
measure (2732)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%relerror (vecflt_type) (7.9.5.1.14)
diag_func (2732)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func (diag_func) (7.9.5.1.145)
description (2660)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%description (string) (7.9.5.1.4)
transf_mat (2660)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%transf_mat (matflt_type) (7.9.5.1.12)
emissivity1d (2735)	fusiondiag%fus_product(:)%emissivity1d (fusiondiag_emissivity1d) (7.9.5.1.218)
units (2733)	fusiondiag%fus_product(:)%emissivity1d%units (string) (7.9.5.1.4)
r (2733)	fusiondiag%fus_product(:)%emissivity1d%r (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%emissivity1d%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%emissivity1d%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%emissivity1d%r%relerror (vecflt_type) (7.9.5.1.14)
z (2733)	fusiondiag%fus_product(:)%emissivity1d%z (exp1D) (7.9.5.1.198)

value (2713)	fusiondiag%fus_product(:)%emissivity1d%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%emissivity1d%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%emissivity1d%z%relerror (vecflt_type) (7.9.5.1.14)
spec1d (2733)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:) (fusiondiag_spec1d) (7.9.5.1.221)
energy (2736)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy (exp0D) (7.9.5.1.197)
value (2712)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%value (float) (7.9.5.1.2)
abserror (2712)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%abserror (float) (7.9.5.1.2)
relerror (2712)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%relerror (float) (7.9.5.1.2)
measure (2736)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure (exp1D) (7.9.5.1.198)
value (2713)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%relerror (vecflt_type) (7.9.5.1.14)
emissivity2d (2735)	fusiondiag%fus_product(:)%emissivity2d (fusiondiag_emissivity2d) (7.9.5.1.219)
units (2734)	fusiondiag%fus_product(:)%emissivity2d%units (string) (7.9.5.1.4)
r (2734)	fusiondiag%fus_product(:)%emissivity2d%r (exp2D) (7.9.5.1.199)
value (2714)	fusiondiag%fus_product(:)%emissivity2d%r%value (matflt_type) (7.9.5.1.12)
abserror (2714)	fusiondiag%fus_product(:)%emissivity2d%r%abserror (matflt_type) (7.9.5.1.12)
relerror (2714)	fusiondiag%fus_product(:)%emissivity2d%r%relerror (matflt_type) (7.9.5.1.12)
z (2734)	fusiondiag%fus_product(:)%emissivity2d%z (exp2D) (7.9.5.1.199)
value (2714)	fusiondiag%fus_product(:)%emissivity2d%z%value (matflt_type) (7.9.5.1.12)
abserror (2714)	fusiondiag%fus_product(:)%emissivity2d%z%abserror (matflt_type) (7.9.5.1.12)
relerror (2714)	fusiondiag%fus_product(:)%emissivity2d%z%relerror (matflt_type) (7.9.5.1.12)
spec2d (2734)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:) (fusiondiag_spec2d) (7.9.5.1.222)
energy (2737)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy (exp0D) (7.9.5.1.197)
value (2712)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%value (float) (7.9.5.1.2)
abserror (2712)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%abserror (float) (7.9.5.1.2)
relerror (2712)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%relerror (float) (7.9.5.1.2)
measure (2737)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure (exp2D) (7.9.5.1.199)
value (2714)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%value (matflt_type) (7.9.5.1.12)
abserror (2714)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%abserror (matflt_type) (7.9.5.1.12)
relerror (2714)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%relerror (matflt_type) (7.9.5.1.12)
codeparam (2735)	fusiondiag%fus_product(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	fusiondiag%fus_product(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	fusiondiag%fus_product(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	fusiondiag%fus_product(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	fusiondiag%fus_product(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	fusiondiag%fus_product(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2551)	fusiondiag%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	fusiondiag%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	fusiondiag%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	fusiondiag%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	fusiondiag%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	fusiondiag%codeparam%output_flag (integer) (7.9.5.1.3)
time (2551)	fusiondiag%time (float) (7.9.5.1.2)

7.9.5.2.19 halphadiag

datainfo (2552)	halphadiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	halphadiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	halphadiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	halphadiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	halphadiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	halphadiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	halphadiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	halphadiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	halphadiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	halphadiag%datainfo%whatref%user (string) (7.9.5.1.4)

machine (2969)	halphadiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	halphadiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	halphadiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	halphadiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	halphadiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	halphadiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	halphadiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	halphadiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	halphadiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2552)	halphadiag%setup (halpha_setup) (7.9.5.1.229)
name (2744)	halphadiag%setup%name (vecstring_type) (7.9.5.1.16)
pivot_point (2744)	halphadiag%setup%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	halphadiag%setup%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	halphadiag%setup%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	halphadiag%setup%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang (2744)	halphadiag%setup%horchordang (vecflt_type) (7.9.5.1.14)
verchordang (2744)	halphadiag%setup%verchordang (vecflt_type) (7.9.5.1.14)
second_point (2744)	halphadiag%setup%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	halphadiag%setup%second_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	halphadiag%setup%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	halphadiag%setup%second_point%phi (vecflt_type) (7.9.5.1.14)
solidangle (2744)	halphadiag%setup%solidangle (exp1D) (7.9.5.1.198)
value (2713)	halphadiag%setup%solidangle%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	halphadiag%setup%solidangle%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	halphadiag%setup%solidangle%relerror (vecflt_type) (7.9.5.1.14)
intensity (2552)	halphadiag%intensity (exp1D) (7.9.5.1.198)
value (2713)	halphadiag%intensity%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	halphadiag%intensity%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	halphadiag%intensity%relerror (vecflt_type) (7.9.5.1.14)
time (2552)	halphadiag%time (float) (7.9.5.1.2)

7.9.5.2.20 interfdiag

datainfo (2764)	lineintegraldiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	lineintegraldiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	lineintegraldiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	lineintegraldiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	lineintegraldiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	lineintegraldiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	lineintegraldiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	lineintegraldiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	lineintegraldiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	lineintegraldiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
expression (2764)	lineintegraldiag%expression (string) (7.9.5.1.4)
setup_line (2764)	lineintegraldiag%setup_line (setup_line) (7.9.5.1.379)
pivot_point (2894)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang1 (2894)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.5.1.14)
verchordang1 (2894)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.5.1.14)
width (2894)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.5.1.14)

second_point (2894)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.5.1.14)
horchordang2 (2894)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.5.1.14)
verchordang2 (2894)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.5.1.14)
third_point (2894)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.5.1.14)
nchordpoints (2894)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.5.1.3)
measure (2764)	lineintegraldiag%measure (exp1D) (7.9.5.1.198)
value (2713)	lineintegraldiag%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.5.1.14)
time (2764)	lineintegraldiag%time (float) (7.9.5.1.2)

7.9.5.2.21 ironmodel

datainfo (2554)	ironmodel%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	ironmodel%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	ironmodel%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	ironmodel%datainfo%source (string) (7.9.5.1.4)
comment (2653)	ironmodel%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	ironmodel%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	ironmodel%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	ironmodel%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	ironmodel%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	ironmodel%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	ironmodel%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	ironmodel%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	ironmodel%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	ironmodel%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	ironmodel%datainfo%putinfo%rights (string) (7.9.5.1.4)
desc_iron (2554)	ironmodel%desc_iron (desc_iron) (7.9.5.1.142)
name (2657)	ironmodel%desc_iron%name (vecstring_type) (7.9.5.1.16)
id (2657)	ironmodel%desc_iron%id (vecstring_type) (7.9.5.1.16)
permeability (2657)	ironmodel%desc_iron%permeability (permeability) (7.9.5.1.288)
b (2803)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.5.1.12)
mur (2803)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.5.1.12)
geom_iron (2657)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.5.1.224)
npoints (2739)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.5.1.15)
rzcoordinate (2739)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.5.1.345)
r (2860)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.5.1.12)
z (2860)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.5.1.12)
magnetise (2554)	ironmodel%magnetise (magnetise) (7.9.5.1.255)
mr (2770)	ironmodel%magnetise%mr (exp1D) (7.9.5.1.198)
value (2713)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.5.1.14)
mz (2770)	ironmodel%magnetise%mz (exp1D) (7.9.5.1.198)
value (2713)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.5.1.14)
time (2554)	ironmodel%time (float) (7.9.5.1.2)

7.9.5.2.22 langmuirdiag

datainfo (2555)	langmuirdiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	langmuirdiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	langmuirdiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	langmuirdiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	langmuirdiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	langmuirdiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	langmuirdiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	langmuirdiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	langmuirdiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	langmuirdiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	langmuirdiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	langmuirdiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
potential (2555)	langmuirdiag%potential (lang_measure) (7.9.5.1.240)
name (2755)	langmuirdiag%potential%name (vecstring_type) (7.9.5.1.16)
direction (2755)	langmuirdiag%potential%direction (vecstring_type) (7.9.5.1.16)
area (2755)	langmuirdiag%potential%area (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%potential%area%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.5.1.14)
position (2755)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%potential%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%potential%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	langmuirdiag%potential%position%phi (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2755)	langmuirdiag%potential%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.5.1.14)
bias (2555)	langmuirdiag%bias (lang_measure) (7.9.5.1.240)
name (2755)	langmuirdiag%bias%name (vecstring_type) (7.9.5.1.16)
direction (2755)	langmuirdiag%bias%direction (vecstring_type) (7.9.5.1.16)
area (2755)	langmuirdiag%bias%area (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%bias%area%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.5.1.14)
position (2755)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%bias%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%bias%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	langmuirdiag%bias%position%phi (exp1D) (7.9.5.1.198)

value (2713)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2755)	langmuirdiag%bias%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.5.1.14)
jsat (2555)	langmuirdiag%jsat (lang_measure) (7.9.5.1.240)
name (2755)	langmuirdiag%jsat%name (vecstring_type) (7.9.5.1.16)
direction (2755)	langmuirdiag%jsat%direction (vecstring_type) (7.9.5.1.16)
area (2755)	langmuirdiag%jsat%area (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.5.1.14)
position (2755)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%jsat%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%jsat%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	langmuirdiag%jsat%position%phi (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2755)	langmuirdiag%jsat%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.5.1.14)
ne (2555)	langmuirdiag%ne (lang_derived) (7.9.5.1.239)
source (2754)	langmuirdiag%ne%source (vecstring_type) (7.9.5.1.16)
position (2754)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%ne%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%ne%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	langmuirdiag%ne%position%phi (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2754)	langmuirdiag%ne%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.5.1.14)
te (2555)	langmuirdiag%te (lang_derived) (7.9.5.1.239)
source (2754)	langmuirdiag%te%source (vecstring_type) (7.9.5.1.16)
position (2754)	langmuirdiag%te%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%te%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%te%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%te%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%te%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%te%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%te%position%z%relerror (vecflt_type) (7.9.5.1.14)

phi (2864)	langmuirdiag%te%position%phi (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%te%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%te%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2754)	langmuirdiag%te%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%te%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%te%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%te%measure%relerror (vecflt_type) (7.9.5.1.14)
machpar (2555)	langmuirdiag%machpar (lang_derived) (7.9.5.1.239)
source (2754)	langmuirdiag%machpar%source (vecstring_type) (7.9.5.1.16)
position (2754)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	langmuirdiag%machpar%position%r (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%machpar%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%machpar%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	langmuirdiag%machpar%position%z (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%machpar%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%machpar%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	langmuirdiag%machpar%position%phi (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%machpar%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%machpar%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2754)	langmuirdiag%machpar%measure (exp1D) (7.9.5.1.198)
value (2713)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	langmuirdiag%machpar%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	langmuirdiag%machpar%measure%relerror (vecflt_type) (7.9.5.1.14)
codeparam (2555)	langmuirdiag%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	langmuirdiag%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	langmuirdiag%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	langmuirdiag%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	langmuirdiag%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	langmuirdiag%codeparam%output_flag (integer) (7.9.5.1.3)
time (2555)	langmuirdiag%time (float) (7.9.5.1.2)

7.9.5.2.23 launchs

datainfo (2556)	launchs%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	launchs%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	launchs%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	launchs%datainfo%source (string) (7.9.5.1.4)
comment (2653)	launchs%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	launchs%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	launchs%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	launchs%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	launchs%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	launchs%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	launchs%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	launchs%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	launchs%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	launchs%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	launchs%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	launchs%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	launchs%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	launchs%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	launchs%datainfo%putinfo%rights (string) (7.9.5.1.4)
name (2556)	launchs%name (vecstring_type) (7.9.5.1.16)
type (2556)	launchs%type (vecstring_type) (7.9.5.1.16)
frequency (2556)	launchs%frequency (vecflt_type) (7.9.5.1.14)
mode (2556)	launchs%mode (vecint_type) (7.9.5.1.15)
position (2556)	launchs%position (rzphi1D) (7.9.5.1.348)

r (2863)	launchs%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	launchs%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	launchs%position%phi (vecflt_type) (7.9.5.1.14)
spectrum (2556)	launchs%spectrum (spectrum) (7.9.5.1.396)
phi_theta (2911)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.5.1.243)
nn_phi (2758)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.5.1.15)
nn_theta (2758)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.5.1.15)
n_phi (2758)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.5.1.12)
n_theta (2758)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.5.1.12)
power (2758)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.5.1.6)
parallel (2911)	launchs%spectrum%parallel (launchs_parallel) (7.9.5.1.242)
nn_par (2757)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.5.1.15)
n_par (2757)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.5.1.12)
power (2757)	launchs%spectrum%parallel%power (vecflt_type) (7.9.5.1.14)
beam (2556)	launchs%beam (launchs_rfbeam) (7.9.5.1.244)
spot (2759)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.5.1.246)
waist (2761)	launchs%beam%spot%waist (matflt_type) (7.9.5.1.12)
angle (2761)	launchs%beam%spot%angle (vecflt_type) (7.9.5.1.14)
phaseellipse (2759)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.5.1.245)
invcurvrad (2760)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.5.1.12)
angle (2760)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.5.1.14)
codeparam (2556)	launchs%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	launchs%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	launchs%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	launchs%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	launchs%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	launchs%codeparam%output_flag (integer) (7.9.5.1.3)
time (2556)	launchs%time (float) (7.9.5.1.2)

7.9.5.2.24 limiter

datainfo (2557)	limiter%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	limiter%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	limiter%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	limiter%datainfo%source (string) (7.9.5.1.4)
comment (2653)	limiter%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	limiter%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	limiter%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	limiter%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	limiter%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	limiter%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	limiter%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	limiter%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	limiter%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	limiter%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	limiter%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	limiter%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	limiter%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	limiter%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	limiter%datainfo%putinfo%rights (string) (7.9.5.1.4)
limiter_unit (2557)	limiter%limiter_unit(:) (limiter_unit) (7.9.5.1.248)
name (2763)	limiter%limiter_unit(:)%name (string) (7.9.5.1.4)
closed (2763)	limiter%limiter_unit(:)%closed (string) (7.9.5.1.4)
position (2763)	limiter%limiter_unit(:)%position (rz1D) (7.9.5.1.342)
r (2857)	limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.5.1.14)
eta (2763)	limiter%limiter_unit(:)%eta (float) (7.9.5.1.2)
delta (2763)	limiter%limiter_unit(:)%delta (float) (7.9.5.1.2)
permeability (2763)	limiter%limiter_unit(:)%permeability (float) (7.9.5.1.2)

7.9.5.2.25 lithiumdiag

datainfo (2558)	lithiumdiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	lithiumdiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	lithiumdiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	lithiumdiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	lithiumdiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	lithiumdiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	lithiumdiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	lithiumdiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	lithiumdiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	lithiumdiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	lithiumdiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	lithiumdiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	lithiumdiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	lithiumdiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	lithiumdiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	lithiumdiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	lithiumdiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	lithiumdiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	lithiumdiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2558)	lithiumdiag%setup (lithsetup) (7.9.5.1.251)
position (2766)	lithiumdiag%setup%position (rzphi1D) (7.9.5.1.348)
r (2863)	lithiumdiag%setup%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	lithiumdiag%setup%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lithiumdiag%setup%position%phi (vecflt_type) (7.9.5.1.14)
measure (2558)	lithiumdiag%measure (lithmeasure) (7.9.5.1.250)
ne (2765)	lithiumdiag%measure%ne (exp1D) (7.9.5.1.198)
value (2713)	lithiumdiag%measure%ne%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	lithiumdiag%measure%ne%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	lithiumdiag%measure%ne%relerror (vecflt_type) (7.9.5.1.14)
time (2558)	lithiumdiag%time (float) (7.9.5.1.2)

7.9.5.2.26 magdiag

datainfo (2559)	magdiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	magdiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	magdiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	magdiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	magdiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	magdiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	magdiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	magdiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	magdiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	magdiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	magdiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	magdiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	magdiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	magdiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	magdiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	magdiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	magdiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	magdiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	magdiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
ip (2559)	magdiag%ip (exp0D) (7.9.5.1.197)
value (2712)	magdiag%ip%value (float) (7.9.5.1.2)
abserror (2712)	magdiag%ip%abserror (float) (7.9.5.1.2)
relerror (2712)	magdiag%ip%relerror (float) (7.9.5.1.2)
diamagflux (2559)	magdiag%diamagflux (exp0D) (7.9.5.1.197)
value (2712)	magdiag%diamagflux%value (float) (7.9.5.1.2)
abserror (2712)	magdiag%diamagflux%abserror (float) (7.9.5.1.2)

relerror (2712)	magdiag%diamagflux%relerror (float) (7.9.5.1.2)
flux_loops (2559)	magdiag%flux_loops (flux_loops) (7.9.5.1.203)
setup_floops (2718)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.5.1.377)
name (2892)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.5.1.16)
id (2892)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.5.1.16)
position (2892)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.5.1.350)
r (2865)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.5.1.12)
z (2865)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.5.1.12)
phi (2865)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.5.1.12)
npoints (2892)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.5.1.15)
measure (2718)	magdiag%flux_loops%measure (exp1D) (7.9.5.1.198)
value (2713)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.5.1.14)
bpol_probes (2559)	magdiag%bpol_probes (bpol_probes) (7.9.5.1.81)
setup_bprobe (2596)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.5.1.376)
name (2891)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.5.1.16)
id (2891)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.5.1.16)
position (2891)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.5.1.342)
r (2857)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.5.1.14)
polangle (2891)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.5.1.14)
torangle (2891)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.5.1.14)
area (2891)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.5.1.14)
length (2891)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.5.1.14)
turns (2891)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.5.1.15)
measure (2596)	magdiag%bpol_probes%measure (exp1D) (7.9.5.1.198)
value (2713)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.5.1.14)
time (2559)	magdiag%time (float) (7.9.5.1.2)

7.9.5.2.27 mhd

datainfo (2560)	mhd%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	mhd%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	mhd%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	mhd%datainfo%source (string) (7.9.5.1.4)
comment (2653)	mhd%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	mhd%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	mhd%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	mhd%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	mhd%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	mhd%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	mhd%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	mhd%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	mhd%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	mhd%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	mhd%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	mhd%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	mhd%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	mhd%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	mhd%datainfo%putinfo%rights (string) (7.9.5.1.4)
n (2560)	mhd%n (vecint_type) (7.9.5.1.15)
frequency (2560)	mhd%frequency (vecflt_type) (7.9.5.1.14)
growthrate (2560)	mhd%growthrate (vecflt_type) (7.9.5.1.14)
plasma (2560)	mhd%plasma (mhd_plasma) (7.9.5.1.259)
psi (2774)	mhd%plasma%psi (vecflt_type) (7.9.5.1.14)
m (2774)	mhd%plasma%m (array3dflt_type) (7.9.5.1.6)
disp_perp (2774)	mhd%plasma%disp_perp (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%disp_perp%re (array3dflt_type) (7.9.5.1.6)

im (2587)	mhd%plasma%disp_perp%im (array3dflt_type) (7.9.5.1.6)
disp_par (2774)	mhd%plasma%disp_par (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%disp_par%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%disp_par%im (array3dflt_type) (7.9.5.1.6)
tau_alfven (2774)	mhd%plasma%tau_alfven (vecflt_type) (7.9.5.1.14)
tau_resistive (2774)	mhd%plasma%tau_resistive (vecflt_type) (7.9.5.1.14)
coord_sys (2774)	mhd%plasma%coord_sys (coord_sys) (7.9.5.1.107)
grid_type (2622)	mhd%plasma%coord_sys%grid_type (string) (7.9.5.1.4)
grid (2622)	mhd%plasma%coord_sys%grid (reggrid) (7.9.5.1.337)
dim1 (2852)	mhd%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2852)	mhd%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.5.1.14)
jacobian (2622)	mhd%plasma%coord_sys%jacobian (matflt_type) (7.9.5.1.12)
g_11 (2622)	mhd%plasma%coord_sys%g_11 (matflt_type) (7.9.5.1.12)
g_12 (2622)	mhd%plasma%coord_sys%g_12 (matflt_type) (7.9.5.1.12)
g_13 (2622)	mhd%plasma%coord_sys%g_13 (matflt_type) (7.9.5.1.12)
g_22 (2622)	mhd%plasma%coord_sys%g_22 (matflt_type) (7.9.5.1.12)
g_23 (2622)	mhd%plasma%coord_sys%g_23 (matflt_type) (7.9.5.1.12)
g_33 (2622)	mhd%plasma%coord_sys%g_33 (matflt_type) (7.9.5.1.12)
position (2622)	mhd%plasma%coord_sys%position (rz2D) (7.9.5.1.345)
r (2860)	mhd%plasma%coord_sys%position%r (matflt_type) (7.9.5.1.12)
z (2860)	mhd%plasma%coord_sys%position%z (matflt_type) (7.9.5.1.12)
a_pert (2774)	mhd%plasma%a_pert (mhd_vector) (7.9.5.1.262)
coord1 (2777)	mhd%plasma%a_pert%coord1 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%a_pert%coord1%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%a_pert%coord1%im (array3dflt_type) (7.9.5.1.6)
coord2 (2777)	mhd%plasma%a_pert%coord2 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%a_pert%coord2%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%a_pert%coord2%im (array3dflt_type) (7.9.5.1.6)
coord3 (2777)	mhd%plasma%a_pert%coord3 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%a_pert%coord3%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%a_pert%coord3%im (array3dflt_type) (7.9.5.1.6)
b_pert (2774)	mhd%plasma%b_pert (mhd_vector) (7.9.5.1.262)
coord1 (2777)	mhd%plasma%b_pert%coord1 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%b_pert%coord1%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%b_pert%coord1%im (array3dflt_type) (7.9.5.1.6)
coord2 (2777)	mhd%plasma%b_pert%coord2 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%b_pert%coord2%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%b_pert%coord2%im (array3dflt_type) (7.9.5.1.6)
coord3 (2777)	mhd%plasma%b_pert%coord3 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%b_pert%coord3%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%b_pert%coord3%im (array3dflt_type) (7.9.5.1.6)
v_pert (2774)	mhd%plasma%v_pert (mhd_vector) (7.9.5.1.262)
coord1 (2777)	mhd%plasma%v_pert%coord1 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%v_pert%coord1%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%v_pert%coord1%im (array3dflt_type) (7.9.5.1.6)
coord2 (2777)	mhd%plasma%v_pert%coord2 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%v_pert%coord2%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%v_pert%coord2%im (array3dflt_type) (7.9.5.1.6)
coord3 (2777)	mhd%plasma%v_pert%coord3 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%v_pert%coord3%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%v_pert%coord3%im (array3dflt_type) (7.9.5.1.6)
p_pert (2774)	mhd%plasma%p_pert (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%p_pert%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%p_pert%im (array3dflt_type) (7.9.5.1.6)
rho_mass_pert (2774)	mhd%plasma%rho_mass_pert (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%rho_mass_pert%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%rho_mass_pert%im (array3dflt_type) (7.9.5.1.6)
temp_pert (2774)	mhd%plasma%temp_pert (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%plasma%temp_pert%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%plasma%temp_pert%im (array3dflt_type) (7.9.5.1.6)
vacuum (2560)	mhd%vacuum (mhd_vacuum) (7.9.5.1.261)

m (2776)	mhd%vacuum%m (array3dflt_type) (7.9.5.1.6)
coord_sys (2776)	mhd%vacuum%coord_sys (coord_sys) (7.9.5.1.107)
grid_type (2622)	mhd%vacuum%coord_sys%grid_type (string) (7.9.5.1.4)
grid (2622)	mhd%vacuum%coord_sys%grid (reggrid) (7.9.5.1.337)
dim1 (2852)	mhd%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2852)	mhd%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.5.1.14)
jacobian (2622)	mhd%vacuum%coord_sys%jacobian (matflt_type) (7.9.5.1.12)
g_11 (2622)	mhd%vacuum%coord_sys%g_11 (matflt_type) (7.9.5.1.12)
g_12 (2622)	mhd%vacuum%coord_sys%g_12 (matflt_type) (7.9.5.1.12)
g_13 (2622)	mhd%vacuum%coord_sys%g_13 (matflt_type) (7.9.5.1.12)
g_22 (2622)	mhd%vacuum%coord_sys%g_22 (matflt_type) (7.9.5.1.12)
g_23 (2622)	mhd%vacuum%coord_sys%g_23 (matflt_type) (7.9.5.1.12)
g_33 (2622)	mhd%vacuum%coord_sys%g_33 (matflt_type) (7.9.5.1.12)
position (2622)	mhd%vacuum%coord_sys%position (rz2D) (7.9.5.1.345)
r (2860)	mhd%vacuum%coord_sys%position%r (matflt_type) (7.9.5.1.12)
z (2860)	mhd%vacuum%coord_sys%position%z (matflt_type) (7.9.5.1.12)
a_pert (2776)	mhd%vacuum%a_pert (mhd_vector) (7.9.5.1.262)
coord1 (2777)	mhd%vacuum%a_pert%coord1 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%a_pert%coord1%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%a_pert%coord1%im (array3dflt_type) (7.9.5.1.6)
coord2 (2777)	mhd%vacuum%a_pert%coord2 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%a_pert%coord2%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%a_pert%coord2%im (array3dflt_type) (7.9.5.1.6)
coord3 (2777)	mhd%vacuum%a_pert%coord3 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%a_pert%coord3%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%a_pert%coord3%im (array3dflt_type) (7.9.5.1.6)
b_pert (2776)	mhd%vacuum%b_pert (mhd_vector) (7.9.5.1.262)
coord1 (2777)	mhd%vacuum%b_pert%coord1 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%b_pert%coord1%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%b_pert%coord1%im (array3dflt_type) (7.9.5.1.6)
coord2 (2777)	mhd%vacuum%b_pert%coord2 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%b_pert%coord2%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%b_pert%coord2%im (array3dflt_type) (7.9.5.1.6)
coord3 (2777)	mhd%vacuum%b_pert%coord3 (array3dcplx_type) (7.9.5.1.72)
re (2587)	mhd%vacuum%b_pert%coord3%re (array3dflt_type) (7.9.5.1.6)
im (2587)	mhd%vacuum%b_pert%coord3%im (array3dflt_type) (7.9.5.1.6)
time (2560)	mhd%time (float) (7.9.5.1.2)
codeparam (2560)	mhd%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	mhd%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	mhd%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	mhd%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	mhd%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	mhd%codeparam%output_flag (integer) (7.9.5.1.3)

7.9.5.2.28 msediag

datainfo (2561)	msediag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	msediag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	msediag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	msediag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	msediag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	msediag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	msediag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	msediag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	msediag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	msediag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	msediag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	msediag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	msediag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	msediag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	msediag%datainfo%putinfo (putinfo) (7.9.5.1.307)

putmethod (2822)	msediag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	msediag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	msediag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	msediag%datainfo%putinfo%rights (string) (7.9.5.1.4)
polarimetry (2561)	msediag%polarimetry (polarimetry) (7.9.5.1.301)
setup (2816)	msediag%polarimetry%setup (msediag_setup_polarimetry) (7.9.5.1.270)
rzgamma (2785)	msediag%polarimetry%setup%rzgamma (rzphidrdzdphi1D) (7.9.5.1.352)
r (2867)	msediag%polarimetry%setup%rzgamma%r (vecflt_type) (7.9.5.1.14)
z (2867)	msediag%polarimetry%setup%rzgamma%z (vecflt_type) (7.9.5.1.14)
phi (2867)	msediag%polarimetry%setup%rzgamma%phi (vecflt_type) (7.9.5.1.14)
dr (2867)	msediag%polarimetry%setup%rzgamma%dr (vecflt_type) (7.9.5.1.14)
dz (2867)	msediag%polarimetry%setup%rzgamma%dz (vecflt_type) (7.9.5.1.14)
dphi (2867)	msediag%polarimetry%setup%rzgamma%dphi (vecflt_type) (7.9.5.1.14)
geom_coef (2785)	msediag%polarimetry%setup%geom_coef (matflt_type) (7.9.5.1.12)
measure (2816)	msediag%polarimetry%measure (exp1D) (7.9.5.1.198)
value (2713)	msediag%polarimetry%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	msediag%polarimetry%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	msediag%polarimetry%measure%relerror (vecflt_type) (7.9.5.1.14)
spectral (2561)	msediag%spectral (spectral) (7.9.5.1.395)
emissivity (2910)	msediag%spectral%emissivity (msediag_emissivity) (7.9.5.1.265)
wavelength (2780)	msediag%spectral%emissivity%wavelength (vecflt_type) (7.9.5.1.14)
emiss_chord (2780)	msediag%spectral%emissivity%emiss_chord(:) (msediag_emiss_chord) (7.9.5.1.264)
volume (2779)	msediag%spectral%emissivity%emiss_chord(:)%volume (float) (7.9.5.1.2)
setup (2779)	msediag%spectral%emissivity%emiss_chord(:)%setup (rzphi1D) (7.9.5.1.348)
r (2863)	msediag%spectral%emissivity%emiss_chord(:)%setup%r (vecflt_type) (7.9.5.1.14)
z (2863)	msediag%spectral%emissivity%emiss_chord(:)%setup%z (vecflt_type) (7.9.5.1.14)
phi (2863)	msediag%spectral%emissivity%emiss_chord(:)%setup%phi (vecflt_type) (7.9.5.1.14)
polarization (2779)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:) (msediag_polarization) (7.9.5.1.266)
type (2781)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type (identifier) (7.9.5.1.231)
id (2746)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%id (string) (7.9.5.1.4)
flag (2746)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%description (string) (7.9.5.1.4)
spec_emiss (2781)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%spec_emiss (matflt_type) (7.9.5.1.12)
quantiaxis (2779)	msediag%spectral%emissivity%emiss_chord(:)%quantiaxis (vecflt_type) (7.9.5.1.14)
radiance (2910)	msediag%spectral%radiance (msediag_radiance) (7.9.5.1.268)
wavelength (2783)	msediag%spectral%radiance%wavelength (exp1D) (7.9.5.1.198)
value (2713)	msediag%spectral%radiance%wavelength%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	msediag%spectral%radiance%wavelength%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	msediag%spectral%radiance%wavelength%relerror (vecflt_type) (7.9.5.1.14)
radia_chord (2783)	msediag%spectral%radiance%radia_chord(:) (msediag_radia_chord) (7.9.5.1.267)
setup (2782)	msediag%spectral%radiance%radia_chord(:)%setup (msediag_setup) (7.9.5.1.269)
pivot_point (2784)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point (rzphi0D) (7.9.5.1.347)
r (2862)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%r (float) (7.9.5.1.2)
z (2862)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%z (float) (7.9.5.1.2)
phi (2862)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%phi (float) (7.9.5.1.2)
horchordang (2784)	msediag%spectral%radiance%radia_chord(:)%setup%horchordang (float) (7.9.5.1.2)
verchordang (2784)	msediag%spectral%radiance%radia_chord(:)%setup%verchordang (float) (7.9.5.1.2)
second_point (2784)	msediag%spectral%radiance%radia_chord(:)%setup%second_point (rzphi0D) (7.9.5.1.347)
r (2862)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%r (float) (7.9.5.1.2)
z (2862)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%z (float) (7.9.5.1.2)
phi (2862)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%phi (float) (7.9.5.1.2)
stokes (2782)	msediag%spectral%radiance%radia_chord(:)%stokes(:) (msediag_stokes) (7.9.5.1.271)
type (2786)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type (identifier) (7.9.5.1.231)
id (2746)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%id (string) (7.9.5.1.4)
flag (2746)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%description (string) (7.9.5.1.4)
vector (2786)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%vector (matflt_type) (7.9.5.1.12)
totradiance (2782)	msediag%spectral%radiance%radia_chord(:)%totradiance (exp1D) (7.9.5.1.198)
value (2713)	msediag%spectral%radiance%radia_chord(:)%totradiance%value (vecflt_type) (7.9.5.1.14)

abserror (2713)	msediag%spectral%radiance%radia_chord(:)%totradiance%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	msediag%spectral%radiance%radia_chord(:)%totradiance%relerror (vecflt_type) (7.9.5.1.14)
codeparam (2910)	msediag%spectral%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	msediag%spectral%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	msediag%spectral%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	msediag%spectral%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	msediag%spectral%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	msediag%spectral%codeparam%output_flag (integer) (7.9.5.1.3)
time (2561)	msediag%time (float) (7.9.5.1.2)

7.9.5.2.29 nbi

datainfo (2562)	nbi%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	nbi%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	nbi%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	nbi%datainfo%source (string) (7.9.5.1.4)
comment (2653)	nbi%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	nbi%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	nbi%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	nbi%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	nbi%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	nbi%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	nbi%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	nbi%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	nbi%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	nbi%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	nbi%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	nbi%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	nbi%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	nbi%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	nbi%datainfo%putinfo%rights (string) (7.9.5.1.4)
nbi_unit (2562)	nbi%nbi_unit(:) (nbi_unit) (7.9.5.1.272)
name (2787)	nbi%nbi_unit(:)%name (string) (7.9.5.1.4)
inj_spec (2787)	nbi%nbi_unit(:)%inj_spec (inj_spec) (7.9.5.1.235)
amn (2750)	nbi%nbi_unit(:)%inj_spec%amn (float) (7.9.5.1.2)
zn (2750)	nbi%nbi_unit(:)%inj_spec%zn (float) (7.9.5.1.2)
pow_unit (2787)	nbi%nbi_unit(:)%pow_unit (exp0D) (7.9.5.1.197)
value (2712)	nbi%nbi_unit(:)%pow_unit%value (float) (7.9.5.1.2)
abserror (2712)	nbi%nbi_unit(:)%pow_unit%abserror (float) (7.9.5.1.2)
relerror (2712)	nbi%nbi_unit(:)%pow_unit%relerror (float) (7.9.5.1.2)
inj_eng_unit (2787)	nbi%nbi_unit(:)%inj_eng_unit (exp0D) (7.9.5.1.197)
value (2712)	nbi%nbi_unit(:)%inj_eng_unit%value (float) (7.9.5.1.2)
abserror (2712)	nbi%nbi_unit(:)%inj_eng_unit%abserror (float) (7.9.5.1.2)
relerror (2712)	nbi%nbi_unit(:)%inj_eng_unit%relerror (float) (7.9.5.1.2)
beamcurrfrac (2787)	nbi%nbi_unit(:)%beamcurrfrac (exp1D) (7.9.5.1.198)
value (2713)	nbi%nbi_unit(:)%beamcurrfrac%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	nbi%nbi_unit(:)%beamcurrfrac%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	nbi%nbi_unit(:)%beamcurrfrac%relerror (vecflt_type) (7.9.5.1.14)
beampowrfrac (2787)	nbi%nbi_unit(:)%beampowrfrac (exp1D) (7.9.5.1.198)
value (2713)	nbi%nbi_unit(:)%beampowrfrac%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	nbi%nbi_unit(:)%beampowrfrac%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	nbi%nbi_unit(:)%beampowrfrac%relerror (vecflt_type) (7.9.5.1.14)
setup_inject (2787)	nbi%nbi_unit(:)%setup_inject (setup_inject) (7.9.5.1.378)
position (2893)	nbi%nbi_unit(:)%setup_inject%position (rzphi0D) (7.9.5.1.347)
r (2862)	nbi%nbi_unit(:)%setup_inject%position%r (float) (7.9.5.1.2)
z (2862)	nbi%nbi_unit(:)%setup_inject%position%z (float) (7.9.5.1.2)
phi (2862)	nbi%nbi_unit(:)%setup_inject%position%phi (float) (7.9.5.1.2)
tang_rad (2893)	nbi%nbi_unit(:)%setup_inject%tang_rad (float) (7.9.5.1.2)
angle (2893)	nbi%nbi_unit(:)%setup_inject%angle (float) (7.9.5.1.2)
direction (2893)	nbi%nbi_unit(:)%setup_inject%direction (integer) (7.9.5.1.3)
focal_len_hz (2893)	nbi%nbi_unit(:)%setup_inject%focal_len_hz (float) (7.9.5.1.2)

focal_len_vc (2893)	nbi%nbi_unit(:)%setup_inject%focal_len_vc (float) (7.9.5.1.2)
divergence (2893)	nbi%nbi_unit(:)%setup_inject%divergence (divergence) (7.9.5.1.174)
frac_divcomp (2689)	nbi%nbi_unit(:)%setup_inject%divergence%frac_divcomp (vecflt_type) (7.9.5.1.14)
div_vert (2689)	nbi%nbi_unit(:)%setup_inject%divergence%div_vert (vecflt_type) (7.9.5.1.14)
div_horiz (2689)	nbi%nbi_unit(:)%setup_inject%divergence%div_horiz (vecflt_type) (7.9.5.1.14)
beamlets (2893)	nbi%nbi_unit(:)%setup_inject%beamlets (beamlets) (7.9.5.1.74)
position (2589)	nbi%nbi_unit(:)%setup_inject%beamlets%position (rzphi1D) (7.9.5.1.348)
r (2863)	nbi%nbi_unit(:)%setup_inject%beamlets%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	nbi%nbi_unit(:)%setup_inject%beamlets%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	nbi%nbi_unit(:)%setup_inject%beamlets%position%phi (vecflt_type) (7.9.5.1.14)
tang_rad_blt (2589)	nbi%nbi_unit(:)%setup_inject%beamlets%tang_rad_blt (vecflt_type) (7.9.5.1.14)
angle_blt (2589)	nbi%nbi_unit(:)%setup_inject%beamlets%angle_blt (vecflt_type) (7.9.5.1.14)
pow_frc_blt (2589)	nbi%nbi_unit(:)%setup_inject%beamlets%pow_frc_blt (vecflt_type) (7.9.5.1.14)
codeparam (2787)	nbi%nbi_unit(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	nbi%nbi_unit(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	nbi%nbi_unit(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	nbi%nbi_unit(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	nbi%nbi_unit(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	nbi%nbi_unit(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2562)	nbi%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	nbi%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	nbi%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	nbi%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	nbi%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	nbi%codeparam%output_flag (integer) (7.9.5.1.3)
time (2562)	nbi%time (float) (7.9.5.1.2)

7.9.5.2.30 neoclassic

datainfo (2563)	neoclassic%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	neoclassic%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	neoclassic%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	neoclassic%datainfo%source (string) (7.9.5.1.4)
comment (2653)	neoclassic%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	neoclassic%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	neoclassic%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	neoclassic%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	neoclassic%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	neoclassic%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	neoclassic%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	neoclassic%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	neoclassic%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	neoclassic%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	neoclassic%datainfo%putinfo%rights (string) (7.9.5.1.4)
rho_tor_norm (2563)	neoclassic%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2563)	neoclassic%rho_tor (vecflt_type) (7.9.5.1.14)
composition (2563)	neoclassic%composition (composition) (7.9.5.1.101)
amn (2616)	neoclassic%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	neoclassic%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	neoclassic%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	neoclassic%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	neoclassic%composition%label (vecstring_type) (7.9.5.1.16)
desc_impur (2563)	neoclassic%desc_impur (desc_impur) (7.9.5.1.141)
amn (2656)	neoclassic%desc_impur%amn (vecflt_type) (7.9.5.1.14)
zn (2656)	neoclassic%desc_impur%zn (vecint_type) (7.9.5.1.15)
i_ion (2656)	neoclassic%desc_impur%i_ion (vecint_type) (7.9.5.1.15)
nzimp (2656)	neoclassic%desc_impur%nzimp (vecint_type) (7.9.5.1.15)

zmin (2656)	neoclassic%desc_impur%zmin (matint_type) (7.9.5.1.13)
zmax (2656)	neoclassic%desc_impur%zmax (matint_type) (7.9.5.1.13)
label (2656)	neoclassic%desc_impur%label (vecstring_type) (7.9.5.1.16)
compositions (2563)	neoclassic%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	neoclassic%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	neoclassic%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	neoclassic%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	neoclassic%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	neoclassic%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	neoclassic%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	neoclassic%compositions%ions(:)%zion (float) (7.9.5.1.2)
imp_flag (2751)	neoclassic%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	neoclassic%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	neoclassic%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	neoclassic%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	neoclassic%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	neoclassic%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	neoclassic%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	neoclassic%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	neoclassic%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	neoclassic%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	neoclassic%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	neoclassic%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	neoclassic%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	neoclassic%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	neoclassic%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	neoclassic%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	neoclassic%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	neoclassic%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	neoclassic%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	neoclassic%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	neoclassic%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	neoclassic%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	neoclassic%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	neoclassic%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	neoclassic%compositions%signature%description (string) (7.9.5.1.4)
ni_neo (2563)	neoclassic%ni_neo (transcoefion) (7.9.5.1.417)
diff_eff (2932)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2932)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2932)	neoclassic%ni_neo%exchange (matflt_type) (7.9.5.1.12)
qgi (2932)	neoclassic%ni_neo%qgi (matflt_type) (7.9.5.1.12)
flux (2932)	neoclassic%ni_neo%flux (matflt_type) (7.9.5.1.12)
off_diagonal (2932)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.5.1.279)
d_ni (2794)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.5.1.6)
d_ti (2794)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.5.1.6)
d_ne (2794)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.5.1.12)
d_te (2794)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.5.1.12)
d_epar (2794)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.5.1.12)
d_mtor (2794)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.5.1.12)
flag (2932)	neoclassic%ni_neo%flag (integer) (7.9.5.1.3)
ne_neo (2563)	neoclassic%ne_neo (transcoefel) (7.9.5.1.415)
diff_eff (2930)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.5.1.14)
vconv_eff (2930)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.5.1.14)
flux (2930)	neoclassic%ne_neo%flux (vecflt_type) (7.9.5.1.14)
off_diagonal (2930)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.5.1.278)
d_ni (2793)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.5.1.12)
d_ti (2793)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.5.1.12)
d_ne (2793)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.5.1.14)
d_te (2793)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.5.1.14)

d_epar (2793)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.5.1.14)
d_mtor (2793)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.5.1.14)
flag (2930)	neoclassic%ne_neo%flag (integer) (7.9.5.1.3)
nz_neo (2563)	neoclassic%nz_neo(:) (transcoefimp) (7.9.5.1.416)
diff_eff (2931)	neoclassic%nz_neo(:)%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2931)	neoclassic%nz_neo(:)%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2931)	neoclassic%nz_neo(:)%exchange (matflt_type) (7.9.5.1.12)
flux (2931)	neoclassic%nz_neo(:)%flux (matflt_type) (7.9.5.1.12)
flag (2931)	neoclassic%nz_neo(:)%flag (integer) (7.9.5.1.3)
ti_neo (2563)	neoclassic%ti_neo (transcoefion) (7.9.5.1.417)
diff_eff (2932)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2932)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2932)	neoclassic%ti_neo%exchange (matflt_type) (7.9.5.1.12)
qgi (2932)	neoclassic%ti_neo%qgi (matflt_type) (7.9.5.1.12)
flux (2932)	neoclassic%ti_neo%flux (matflt_type) (7.9.5.1.12)
off_diagonal (2932)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.5.1.279)
d_ni (2794)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.5.1.6)
d_ti (2794)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.5.1.6)
d_ne (2794)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.5.1.12)
d_te (2794)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.5.1.12)
d_epar (2794)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.5.1.12)
d_mtor (2794)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.5.1.12)
flag (2932)	neoclassic%ti_neo%flag (integer) (7.9.5.1.3)
te_neo (2563)	neoclassic%te_neo (transcoefel) (7.9.5.1.415)
diff_eff (2930)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.5.1.14)
vconv_eff (2930)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.5.1.14)
flux (2930)	neoclassic%te_neo%flux (vecflt_type) (7.9.5.1.14)
off_diagonal (2930)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.5.1.278)
d_ni (2793)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.5.1.12)
d_ti (2793)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.5.1.12)
d_ne (2793)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.5.1.14)
d_te (2793)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.5.1.14)
d_epar (2793)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.5.1.14)
d_mtor (2793)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.5.1.14)
flag (2930)	neoclassic%te_neo%flag (integer) (7.9.5.1.3)
tz_neo (2563)	neoclassic%tz_neo(:) (transcoefimp) (7.9.5.1.416)
diff_eff (2931)	neoclassic%tz_neo(:)%diff_eff (matflt_type) (7.9.5.1.12)
vconv_eff (2931)	neoclassic%tz_neo(:)%vconv_eff (matflt_type) (7.9.5.1.12)
exchange (2931)	neoclassic%tz_neo(:)%exchange (matflt_type) (7.9.5.1.12)
flux (2931)	neoclassic%tz_neo(:)%flux (matflt_type) (7.9.5.1.12)
flag (2931)	neoclassic%tz_neo(:)%flag (integer) (7.9.5.1.3)
mtor_neo (2563)	neoclassic%mtor_neo (transcoefel) (7.9.5.1.415)
diff_eff (2930)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.5.1.14)
vconv_eff (2930)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.5.1.14)
flux (2930)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.5.1.14)
off_diagonal (2930)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.5.1.278)
d_ni (2793)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.5.1.12)
d_ti (2793)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.5.1.12)
d_ne (2793)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.5.1.14)
d_te (2793)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.5.1.14)
d_epar (2793)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.5.1.14)
d_mtor (2793)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.5.1.14)
flag (2930)	neoclassic%mtor_neo%flag (integer) (7.9.5.1.3)
sigma (2563)	neoclassic%sigma (vecflt_type) (7.9.5.1.14)
jboot (2563)	neoclassic%jboot (vecflt_type) (7.9.5.1.14)
er (2563)	neoclassic%er (vecflt_type) (7.9.5.1.14)
vpol (2563)	neoclassic%vpol (matflt_type) (7.9.5.1.12)
fext (2563)	neoclassic%fext (array3dflt_type) (7.9.5.1.6)
jext (2563)	neoclassic%jext (vecflt_type) (7.9.5.1.14)
time (2563)	neoclassic%time (float) (7.9.5.1.2)
codeparam (2563)	neoclassic%codeparam (codeparam) (7.9.5.1.83)

codename (2598)	neoclassic%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	neoclassic%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	neoclassic%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	neoclassic%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	neoclassic%codeparam%output_flag (integer) (7.9.5.1.3)

7.9.5.2.31 orbit

datainfo (2564)	orbit%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	orbit%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	orbit%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	orbit%datainfo%source (string) (7.9.5.1.4)
comment (2653)	orbit%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	orbit%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	orbit%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	orbit%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	orbit%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	orbit%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	orbit%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	orbit%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	orbit%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	orbit%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	orbit%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	orbit%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	orbit%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	orbit%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	orbit%datainfo%putinfo%rights (string) (7.9.5.1.4)
com (2564)	orbit%com (com) (7.9.5.1.87)
amn (2602)	orbit%com%amn (float) (7.9.5.1.2)
zion (2602)	orbit%com%zion (float) (7.9.5.1.2)
energy (2602)	orbit%com%energy (vecflt_type) (7.9.5.1.14)
magn_mom (2602)	orbit%com%magn_mom (vecflt_type) (7.9.5.1.14)
p_phi (2602)	orbit%com%p_phi (vecflt_type) (7.9.5.1.14)
sigma (2602)	orbit%com%sigma (vecint_type) (7.9.5.1.15)
trace (2564)	orbit%trace (trace) (7.9.5.1.414)
time_orb (2929)	orbit%trace%time_orb (matflt_type) (7.9.5.1.12)
ntorb (2929)	orbit%trace%ntorb (vecint_type) (7.9.5.1.15)
r (2929)	orbit%trace%r (matflt_type) (7.9.5.1.12)
z (2929)	orbit%trace%z (matflt_type) (7.9.5.1.12)
phi (2929)	orbit%trace%phi (matflt_type) (7.9.5.1.12)
psi (2929)	orbit%trace%psi (matflt_type) (7.9.5.1.12)
theta_b (2929)	orbit%trace%theta_b (matflt_type) (7.9.5.1.12)
v_parallel (2929)	orbit%trace%v_parallel (matflt_type) (7.9.5.1.12)
v_perp (2929)	orbit%trace%v_perp (matflt_type) (7.9.5.1.12)
global_param (2564)	orbit%global_param (orbit_global_param) (7.9.5.1.281)
orbit_type (2796)	orbit%global_param%orbit_type (vecint_type) (7.9.5.1.15)
omega_b (2796)	orbit%global_param%omega_b (vecflt_type) (7.9.5.1.14)
omega_phi (2796)	orbit%global_param%omega_phi (vecflt_type) (7.9.5.1.14)
omega_c_av (2796)	orbit%global_param%omega_c_av (vecflt_type) (7.9.5.1.14)
special_pos (2796)	orbit%global_param%special_pos (orbit_special_pos) (7.9.5.1.284)
midplane (2799)	orbit%global_param%special_pos%midplane (orbit_midplane) (7.9.5.1.282)
outer (2797)	orbit%global_param%special_pos%midplane%outer (orbit_pos) (7.9.5.1.283)
r (2798)	orbit%global_param%special_pos%midplane%outer%r (vecflt_type) (7.9.5.1.14)
z (2798)	orbit%global_param%special_pos%midplane%outer%z (vecflt_type) (7.9.5.1.14)
phi (2798)	orbit%global_param%special_pos%midplane%outer%phi (vecflt_type) (7.9.5.1.14)
psi (2798)	orbit%global_param%special_pos%midplane%outer%psi (vecflt_type) (7.9.5.1.14)
theta_b (2798)	orbit%global_param%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.5.1.14)
inner (2797)	orbit%global_param%special_pos%midplane%inner (orbit_pos) (7.9.5.1.283)
r (2798)	orbit%global_param%special_pos%midplane%inner%r (vecflt_type) (7.9.5.1.14)
z (2798)	orbit%global_param%special_pos%midplane%inner%z (vecflt_type) (7.9.5.1.14)
phi (2798)	orbit%global_param%special_pos%midplane%inner%phi (vecflt_type) (7.9.5.1.14)

psi (2798)	orbit%global_param%special_pos%midplane%inner%psi (vecflt_type) (7.9.5.1.14)
theta_b (2798)	orbit%global_param%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.5.1.14)
turning_pts (2799)	orbit%global_param%special_pos%turning_pts (orbit_turning_pts) (7.9.5.1.285)
upper (2800)	orbit%global_param%special_pos%turning_pts%upper (orbit_pos) (7.9.5.1.283)
r (2798)	orbit%global_param%special_pos%turning_pts%upper%r (vecflt_type) (7.9.5.1.14)
z (2798)	orbit%global_param%special_pos%turning_pts%upper%z (vecflt_type) (7.9.5.1.14)
phi (2798)	orbit%global_param%special_pos%turning_pts%upper%phi (vecflt_type) (7.9.5.1.14)
psi (2798)	orbit%global_param%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.5.1.14)
theta_b (2798)	orbit%global_param%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.5.1.14)
lower (2800)	orbit%global_param%special_pos%turning_pts%lower (orbit_pos) (7.9.5.1.283)
r (2798)	orbit%global_param%special_pos%turning_pts%lower%r (vecflt_type) (7.9.5.1.14)
z (2798)	orbit%global_param%special_pos%turning_pts%lower%z (vecflt_type) (7.9.5.1.14)
phi (2798)	orbit%global_param%special_pos%turning_pts%lower%phi (vecflt_type) (7.9.5.1.14)
psi (2798)	orbit%global_param%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.5.1.14)
theta_b (2798)	orbit%global_param%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.5.1.14)
codeparam (2564)	orbit%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	orbit%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	orbit%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	orbit%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	orbit%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	orbit%codeparam%output_flag (integer) (7.9.5.1.3)
time (2564)	orbit%time (float) (7.9.5.1.2)

7.9.5.2.32 pellets

datainfo (2565)	pellets%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	pellets%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	pellets%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	pellets%datainfo%source (string) (7.9.5.1.4)
comment (2653)	pellets%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	pellets%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	pellets%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	pellets%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	pellets%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	pellets%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	pellets%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	pellets%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	pellets%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	pellets%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	pellets%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	pellets%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	pellets%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	pellets%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	pellets%datainfo%putinfo%rights (string) (7.9.5.1.4)
toroid_field (2565)	pellets%toroid_field (b0r0) (7.9.5.1.73)
r0 (2588)	pellets%toroid_field%r0 (float) (7.9.5.1.2)
b0 (2588)	pellets%toroid_field%b0 (float) (7.9.5.1.2)
species (2565)	pellets%species (species) (7.9.5.1.393)
amn (2908)	pellets%species%amn (vecflt_type) (7.9.5.1.14)
zn (2908)	pellets%species%zn (vecflt_type) (7.9.5.1.14)
concentr (2908)	pellets%species%concentr (vecflt_type) (7.9.5.1.14)
subl_energy (2908)	pellets%species%subl_energy (vecflt_type) (7.9.5.1.14)
shape (2565)	pellets%shape (shape) (7.9.5.1.380)
shape_sph (2895)	pellets%shape%shape_sph (shape_sph) (7.9.5.1.382)
radius (2897)	pellets%shape%shape_sph%radius (float) (7.9.5.1.2)
shape_cyl (2895)	pellets%shape%shape_cyl (shape_cyl) (7.9.5.1.381)
radius (2896)	pellets%shape%shape_cyl%radius (float) (7.9.5.1.2)
height (2896)	pellets%shape%shape_cyl%height (float) (7.9.5.1.2)
pelletpath (2565)	pellets%pelletpath (pelletpath) (7.9.5.1.287)
pivot_point (2802)	pellets%pelletpath%pivot_point (rzphi0D) (7.9.5.1.347)
r (2862)	pellets%pelletpath%pivot_point%r (float) (7.9.5.1.2)

z (2862)	pellets%pelletpath%pivot_point%z (float) (7.9.5.1.2)
phi (2862)	pellets%pelletpath%pivot_point%phi (float) (7.9.5.1.2)
horchordang (2802)	pellets%pelletpath%horchordang (float) (7.9.5.1.2)
verchordang (2802)	pellets%pelletpath%verchordang (float) (7.9.5.1.2)
second_point (2802)	pellets%pelletpath%second_point (rzphi0D) (7.9.5.1.347)
r (2862)	pellets%pelletpath%second_point%r (float) (7.9.5.1.2)
z (2862)	pellets%pelletpath%second_point%z (float) (7.9.5.1.2)
phi (2862)	pellets%pelletpath%second_point%phi (float) (7.9.5.1.2)
velocity (2565)	pellets%velocity (float) (7.9.5.1.2)
ablationrate (2565)	pellets%ablationrate (ablationrate) (7.9.5.1.66)
rho_tor (2581)	pellets%ablationrate%rho_tor (vecflt_type) (7.9.5.1.14)
rate (2581)	pellets%ablationrate%rate (vecflt_type) (7.9.5.1.14)
position (2581)	pellets%ablationrate%position (rzphi1D) (7.9.5.1.348)
r (2863)	pellets%ablationrate%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	pellets%ablationrate%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	pellets%ablationrate%position%phi (vecflt_type) (7.9.5.1.14)
deposprofile (2565)	pellets%deposprofile (deposprofile) (7.9.5.1.139)
rho_tor (2654)	pellets%deposprofile%rho_tor (vecflt_type) (7.9.5.1.14)
density (2654)	pellets%deposprofile%density (vecflt_type) (7.9.5.1.14)
position (2654)	pellets%deposprofile%position (rzphi1D) (7.9.5.1.348)
r (2863)	pellets%deposprofile%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	pellets%deposprofile%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	pellets%deposprofile%position%phi (vecflt_type) (7.9.5.1.14)
delay (2654)	pellets%deposprofile%delay (float) (7.9.5.1.2)
codeparam (2565)	pellets%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	pellets%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	pellets%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	pellets%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	pellets%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	pellets%codeparam%output_flag (integer) (7.9.5.1.3)
time (2565)	pellets%time (float) (7.9.5.1.2)

7.9.5.2.33 pfsystems

datainfo (2566)	pfsystems%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	pfsystems%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	pfsystems%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	pfsystems%datainfo%source (string) (7.9.5.1.4)
comment (2653)	pfsystems%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	pfsystems%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	pfsystems%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	pfsystems%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	pfsystems%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	pfsystems%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	pfsystems%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	pfsystems%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	pfsystems%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	pfsystems%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	pfsystems%datainfo%putinfo%rights (string) (7.9.5.1.4)
pfcoils (2566)	pfsystems%pfcoils (pfcoils) (7.9.5.1.290)
desc_pfcoils (2805)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.5.1.143)
name (2658)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.5.1.16)
id (2658)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.5.1.16)
res (2658)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.5.1.14)
emax (2658)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.5.1.14)
nelement (2658)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.5.1.15)
pfelement (2658)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.5.1.291)

name (2806)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.5.1.16)
id (2806)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.5.1.16)
turnsign (2806)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.5.1.12)
area (2806)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.5.1.12)
pfgeometry (2806)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.5.1.292)
type (2807)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.5.1.13)
npoints (2807)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.5.1.13)
rzcoordinate (2807)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.5.1.346)
r (2861)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.5.1.6)
z (2861)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.5.1.6)
rzdrdz (2807)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.5.1.6)
coilcurrent (2805)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.5.1.198)
value (2713)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.5.1.14)
coilvoltage (2805)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.5.1.198)
value (2713)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.5.1.14)
pfpassive (2566)	pfsystems%pfpassive (pfpassive) (7.9.5.1.294)
name (2809)	pfsystems%pfpassive%name (vecstring_type) (7.9.5.1.16)
area (2809)	pfsystems%pfpassive%area (vecflt_type) (7.9.5.1.14)
res (2809)	pfsystems%pfpassive%res (vecflt_type) (7.9.5.1.14)
eta (2809)	pfsystems%pfpassive%eta (vecflt_type) (7.9.5.1.14)
pfpageometry (2809)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.5.1.293)
type (2808)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.5.1.15)
npoints (2808)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.5.1.15)
rzcoordinate (2808)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.5.1.345)
r (2860)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.5.1.12)
z (2860)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.5.1.12)
rzdrdz (2808)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.5.1.12)
pfcircuits (2566)	pfsystems%pfcircuits (pfcircuits) (7.9.5.1.289)
name (2804)	pfsystems%pfcircuits%name (vecstring_type) (7.9.5.1.16)
id (2804)	pfsystems%pfcircuits%id (vecstring_type) (7.9.5.1.16)
type (2804)	pfsystems%pfcircuits%type (vecstring_type) (7.9.5.1.16)
nnodes (2804)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.5.1.15)
connections (2804)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.5.1.7)
pfsupplies (2566)	pfsystems%pfsupplies (pfsupplies) (7.9.5.1.295)
desc_supply (2810)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.5.1.144)
name (2659)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.5.1.16)
id (2659)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.5.1.16)
type (2659)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.5.1.16)
delay (2659)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.5.1.14)
filter (2659)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.5.1.201)
num (2716)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.5.1.12)
den (2716)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.5.1.12)
imin (2659)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.5.1.14)
imax (2659)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.5.1.14)
res (2659)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.5.1.14)
umin (2659)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.5.1.14)
umax (2659)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.5.1.14)
emax (2659)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.5.1.14)
voltage (2810)	pfsystems%pfsupplies%voltage (exp1D) (7.9.5.1.198)
value (2713)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.5.1.14)
current (2810)	pfsystems%pfsupplies%current (exp1D) (7.9.5.1.198)
value (2713)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.5.1.14)

relerror (2713)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.5.1.14)
time (2566)	pfsystems%time (float) (7.9.5.1.2)

7.9.5.2.34 polardiag

datainfo (2764)	lineintegraldiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	lineintegraldiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	lineintegraldiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	lineintegraldiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	lineintegraldiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	lineintegraldiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	lineintegraldiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	lineintegraldiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	lineintegraldiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	lineintegraldiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
expression (2764)	lineintegraldiag%expression (string) (7.9.5.1.4)
setup_line (2764)	lineintegraldiag%setup_line (setup_line) (7.9.5.1.379)
pivot_point (2894)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.5.1.14)
horchordang1 (2894)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.5.1.14)
verchordang1 (2894)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.5.1.14)
width (2894)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.5.1.14)
second_point (2894)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.5.1.14)
horchordang2 (2894)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.5.1.14)
verchordang2 (2894)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.5.1.14)
third_point (2894)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.5.1.348)
r (2863)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.5.1.14)
z (2863)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.5.1.14)
phi (2863)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.5.1.14)
nchordpoints (2894)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.5.1.3)
measure (2764)	lineintegraldiag%measure (exp1D) (7.9.5.1.198)
value (2713)	lineintegraldiag%measure%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.5.1.14)
time (2764)	lineintegraldiag%time (float) (7.9.5.1.2)

7.9.5.2.35 reference

datainfo (2568)	reference%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	reference%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	reference%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	reference%datainfo%source (string) (7.9.5.1.4)
comment (2653)	reference%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	reference%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	reference%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	reference%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	reference%datainfo%whatref (whatref) (7.9.5.1.454)

user (2969)	reference%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	reference%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	reference%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	reference%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	reference%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	reference%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	reference%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	reference%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	reference%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	reference%datainfo%putinfo%rights (string) (7.9.5.1.4)
non_timed (2568)	reference%non_timed (ref_nt) (7.9.5.1.311)
zerod_real (2826)	reference%non_timed%zerod_real (ref_nt_0dr) (7.9.5.1.314)
ref1 (2829)	reference%non_timed%zerod_real%ref1 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref1%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref1%description (string) (7.9.5.1.4)
ref2 (2829)	reference%non_timed%zerod_real%ref2 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref2%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref2%description (string) (7.9.5.1.4)
ref3 (2829)	reference%non_timed%zerod_real%ref3 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref3%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref3%description (string) (7.9.5.1.4)
ref4 (2829)	reference%non_timed%zerod_real%ref4 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref4%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref4%description (string) (7.9.5.1.4)
ref5 (2829)	reference%non_timed%zerod_real%ref5 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref5%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref5%description (string) (7.9.5.1.4)
ref6 (2829)	reference%non_timed%zerod_real%ref6 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref6%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref6%description (string) (7.9.5.1.4)
ref7 (2829)	reference%non_timed%zerod_real%ref7 (ref_nt_0dr_ref) (7.9.5.1.315)
value (2830)	reference%non_timed%zerod_real%ref7%value (float) (7.9.5.1.2)
description (2830)	reference%non_timed%zerod_real%ref7%description (string) (7.9.5.1.4)
zerod_int (2826)	reference%non_timed%zerod_int (ref_nt_0di) (7.9.5.1.312)
ref1 (2827)	reference%non_timed%zerod_int%ref1 (ref_nt_0di_ref) (7.9.5.1.313)
value (2828)	reference%non_timed%zerod_int%ref1%value (integer) (7.9.5.1.3)
description (2828)	reference%non_timed%zerod_int%ref1%description (string) (7.9.5.1.4)
ref2 (2827)	reference%non_timed%zerod_int%ref2 (ref_nt_0di_ref) (7.9.5.1.313)
value (2828)	reference%non_timed%zerod_int%ref2%value (integer) (7.9.5.1.3)
description (2828)	reference%non_timed%zerod_int%ref2%description (string) (7.9.5.1.4)
ref3 (2827)	reference%non_timed%zerod_int%ref3 (ref_nt_0di_ref) (7.9.5.1.313)
value (2828)	reference%non_timed%zerod_int%ref3%value (integer) (7.9.5.1.3)
description (2828)	reference%non_timed%zerod_int%ref3%description (string) (7.9.5.1.4)
ref4 (2827)	reference%non_timed%zerod_int%ref4 (ref_nt_0di_ref) (7.9.5.1.313)
value (2828)	reference%non_timed%zerod_int%ref4%value (integer) (7.9.5.1.3)
description (2828)	reference%non_timed%zerod_int%ref4%description (string) (7.9.5.1.4)
zerod_string (2826)	reference%non_timed%zerod_string (ref_nt_0ds) (7.9.5.1.316)
ref1 (2831)	reference%non_timed%zerod_string%ref1 (ref_nt_0ds_ref) (7.9.5.1.317)
value (2832)	reference%non_timed%zerod_string%ref1%value (string) (7.9.5.1.4)
description (2832)	reference%non_timed%zerod_string%ref1%description (string) (7.9.5.1.4)
ref2 (2831)	reference%non_timed%zerod_string%ref2 (ref_nt_0ds_ref) (7.9.5.1.317)
value (2832)	reference%non_timed%zerod_string%ref2%value (string) (7.9.5.1.4)
description (2832)	reference%non_timed%zerod_string%ref2%description (string) (7.9.5.1.4)
oned_real (2826)	reference%non_timed%oned_real (ref_nt_1dr) (7.9.5.1.320)
ref1 (2835)	reference%non_timed%oned_real%ref1 (ref_nt_1dr_ref) (7.9.5.1.321)
value (2836)	reference%non_timed%oned_real%ref1%value (vecflt_type) (7.9.5.1.14)
description (2836)	reference%non_timed%oned_real%ref1%description (string) (7.9.5.1.4)
ref2 (2835)	reference%non_timed%oned_real%ref2 (ref_nt_1dr_ref) (7.9.5.1.321)
value (2836)	reference%non_timed%oned_real%ref2%value (vecflt_type) (7.9.5.1.14)
description (2836)	reference%non_timed%oned_real%ref2%description (string) (7.9.5.1.4)
ref3 (2835)	reference%non_timed%oned_real%ref3 (ref_nt_1dr_ref) (7.9.5.1.321)

value (2836)	reference%non_timed%oned_real%ref3%value (vecflt_type) (7.9.5.1.14)
description (2836)	reference%non_timed%oned_real%ref3%description (string) (7.9.5.1.4)
ref4 (2835)	reference%non_timed%oned_real%ref4 (ref_nt_1dr_ref) (7.9.5.1.321)
value (2836)	reference%non_timed%oned_real%ref4%value (vecflt_type) (7.9.5.1.14)
description (2836)	reference%non_timed%oned_real%ref4%description (string) (7.9.5.1.4)
ref5 (2835)	reference%non_timed%oned_real%ref5 (ref_nt_1dr_ref) (7.9.5.1.321)
value (2836)	reference%non_timed%oned_real%ref5%value (vecflt_type) (7.9.5.1.14)
description (2836)	reference%non_timed%oned_real%ref5%description (string) (7.9.5.1.4)
oned_int (2826)	reference%non_timed%oned_int (ref_nt_1di) (7.9.5.1.318)
ref1 (2833)	reference%non_timed%oned_int%ref1 (ref_nt_1di_ref) (7.9.5.1.319)
value (2834)	reference%non_timed%oned_int%ref1%value (vecint_type) (7.9.5.1.15)
description (2834)	reference%non_timed%oned_int%ref1%description (string) (7.9.5.1.4)
ref2 (2833)	reference%non_timed%oned_int%ref2 (ref_nt_1di_ref) (7.9.5.1.319)
value (2834)	reference%non_timed%oned_int%ref2%value (vecint_type) (7.9.5.1.15)
description (2834)	reference%non_timed%oned_int%ref2%description (string) (7.9.5.1.4)
ref3 (2833)	reference%non_timed%oned_int%ref3 (ref_nt_1di_ref) (7.9.5.1.319)
value (2834)	reference%non_timed%oned_int%ref3%value (vecint_type) (7.9.5.1.15)
description (2834)	reference%non_timed%oned_int%ref3%description (string) (7.9.5.1.4)
ref4 (2833)	reference%non_timed%oned_int%ref4 (ref_nt_1di_ref) (7.9.5.1.319)
value (2834)	reference%non_timed%oned_int%ref4%value (vecint_type) (7.9.5.1.15)
description (2834)	reference%non_timed%oned_int%ref4%description (string) (7.9.5.1.4)
timed (2568)	reference%timed (ref_t) (7.9.5.1.322)
zerod_real (2837)	reference%timed%zerod_real (ref_t_0dr) (7.9.5.1.325)
ref1 (2840)	reference%timed%zerod_real%ref1 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref1%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref1%description (string) (7.9.5.1.4)
ref2 (2840)	reference%timed%zerod_real%ref2 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref2%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref2%description (string) (7.9.5.1.4)
ref3 (2840)	reference%timed%zerod_real%ref3 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref3%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref3%description (string) (7.9.5.1.4)
ref4 (2840)	reference%timed%zerod_real%ref4 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref4%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref4%description (string) (7.9.5.1.4)
ref5 (2840)	reference%timed%zerod_real%ref5 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref5%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref5%description (string) (7.9.5.1.4)
ref6 (2840)	reference%timed%zerod_real%ref6 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref6%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref6%description (string) (7.9.5.1.4)
ref7 (2840)	reference%timed%zerod_real%ref7 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref7%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref7%description (string) (7.9.5.1.4)
ref8 (2840)	reference%timed%zerod_real%ref8 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref8%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref8%description (string) (7.9.5.1.4)
ref9 (2840)	reference%timed%zerod_real%ref9 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref9%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref9%description (string) (7.9.5.1.4)
ref10 (2840)	reference%timed%zerod_real%ref10 (ref_t_0dr_ref) (7.9.5.1.326)
value (2841)	reference%timed%zerod_real%ref10%value (float) (7.9.5.1.2)
description (2841)	reference%timed%zerod_real%ref10%description (string) (7.9.5.1.4)
zerod_int (2837)	reference%timed%zerod_int (ref_t_0di) (7.9.5.1.323)
ref1 (2838)	reference%timed%zerod_int%ref1 (ref_t_0di_ref) (7.9.5.1.324)
value (2839)	reference%timed%zerod_int%ref1%value (integer) (7.9.5.1.3)
description (2839)	reference%timed%zerod_int%ref1%description (string) (7.9.5.1.4)
ref2 (2838)	reference%timed%zerod_int%ref2 (ref_t_0di_ref) (7.9.5.1.324)
value (2839)	reference%timed%zerod_int%ref2%value (integer) (7.9.5.1.3)
description (2839)	reference%timed%zerod_int%ref2%description (string) (7.9.5.1.4)
ref3 (2838)	reference%timed%zerod_int%ref3 (ref_t_0di_ref) (7.9.5.1.324)

value (2839)	reference%timed%zerod_int%ref3%value (integer) (7.9.5.1.3)
description (2839)	reference%timed%zerod_int%ref3%description (string) (7.9.5.1.4)
ref4 (2838)	reference%timed%zerod_int%ref4 (ref_t_0di_ref) (7.9.5.1.324)
value (2839)	reference%timed%zerod_int%ref4%value (integer) (7.9.5.1.3)
description (2839)	reference%timed%zerod_int%ref4%description (string) (7.9.5.1.4)
oned_real (2837)	reference%timed%oned_real (ref_t_1dr) (7.9.5.1.329)
ref1 (2844)	reference%timed%oned_real%ref1 (ref_t_1dr_ref) (7.9.5.1.330)
value (2845)	reference%timed%oned_real%ref1%value (vecflt_type) (7.9.5.1.14)
description (2845)	reference%timed%oned_real%ref1%description (string) (7.9.5.1.4)
ref2 (2844)	reference%timed%oned_real%ref2 (ref_t_1dr_ref) (7.9.5.1.330)
value (2845)	reference%timed%oned_real%ref2%value (vecflt_type) (7.9.5.1.14)
description (2845)	reference%timed%oned_real%ref2%description (string) (7.9.5.1.4)
ref3 (2844)	reference%timed%oned_real%ref3 (ref_t_1dr_ref) (7.9.5.1.330)
value (2845)	reference%timed%oned_real%ref3%value (vecflt_type) (7.9.5.1.14)
description (2845)	reference%timed%oned_real%ref3%description (string) (7.9.5.1.4)
ref4 (2844)	reference%timed%oned_real%ref4 (ref_t_1dr_ref) (7.9.5.1.330)
value (2845)	reference%timed%oned_real%ref4%value (vecflt_type) (7.9.5.1.14)
description (2845)	reference%timed%oned_real%ref4%description (string) (7.9.5.1.4)
ref5 (2844)	reference%timed%oned_real%ref5 (ref_t_1dr_ref) (7.9.5.1.330)
value (2845)	reference%timed%oned_real%ref5%value (vecflt_type) (7.9.5.1.14)
description (2845)	reference%timed%oned_real%ref5%description (string) (7.9.5.1.4)
oned_int (2837)	reference%timed%oned_int (ref_t_1di) (7.9.5.1.327)
ref1 (2842)	reference%timed%oned_int%ref1 (ref_t_1di_ref) (7.9.5.1.328)
value (2843)	reference%timed%oned_int%ref1%value (vecint_type) (7.9.5.1.15)
description (2843)	reference%timed%oned_int%ref1%description (string) (7.9.5.1.4)
ref2 (2842)	reference%timed%oned_int%ref2 (ref_t_1di_ref) (7.9.5.1.328)
value (2843)	reference%timed%oned_int%ref2%value (vecint_type) (7.9.5.1.15)
description (2843)	reference%timed%oned_int%ref2%description (string) (7.9.5.1.4)
ref3 (2842)	reference%timed%oned_int%ref3 (ref_t_1di_ref) (7.9.5.1.328)
value (2843)	reference%timed%oned_int%ref3%value (vecint_type) (7.9.5.1.15)
description (2843)	reference%timed%oned_int%ref3%description (string) (7.9.5.1.4)
ref4 (2842)	reference%timed%oned_int%ref4 (ref_t_1di_ref) (7.9.5.1.328)
value (2843)	reference%timed%oned_int%ref4%value (vecint_type) (7.9.5.1.15)
description (2843)	reference%timed%oned_int%ref4%description (string) (7.9.5.1.4)
time (2568)	reference%time (float) (7.9.5.1.2)

7.9.5.2.36 reflectomet

datainfo (2569)	reflectomet%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	reflectomet%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	reflectomet%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	reflectomet%datainfo%source (string) (7.9.5.1.4)
comment (2653)	reflectomet%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	reflectomet%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	reflectomet%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	reflectomet%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	reflectomet%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	reflectomet%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	reflectomet%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	reflectomet%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	reflectomet%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	reflectomet%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	reflectomet%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	reflectomet%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	reflectomet%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	reflectomet%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	reflectomet%datainfo%putinfo%rights (string) (7.9.5.1.4)
refl_receive (2569)	reflectomet%refl_receive(:) (refl_receive) (7.9.5.1.332)
name (2847)	reflectomet%refl_receive(:)%name (string) (7.9.5.1.4)
raw_signal (2847)	reflectomet%refl_receive(:)%raw_signal (t_series_real) (7.9.5.1.405)
time_wind (2920)	reflectomet%refl_receive(:)%raw_signal%time_wind (vecflt_type) (7.9.5.1.14)

values (2920)	reflectomet%refl_receive(:)%raw_signal%values (vecflt_type) (7.9.5.1.14)
io_signal (2847)	reflectomet%refl_receive(:)%io_signal (t_series_real) (7.9.5.1.405)
time_wind (2920)	reflectomet%refl_receive(:)%io_signal%time_wind (vecflt_type) (7.9.5.1.14)
values (2920)	reflectomet%refl_receive(:)%io_signal%values (vecflt_type) (7.9.5.1.14)
iq_receiver (2847)	reflectomet%refl_receive(:)%iq_receiver (t_series_cplx) (7.9.5.1.404)
time_wind (2919)	reflectomet%refl_receive(:)%iq_receiver%time_wind (vecflt_type) (7.9.5.1.14)
values_re (2919)	reflectomet%refl_receive(:)%iq_receiver%values_re (vecflt_type) (7.9.5.1.14)
values_im (2919)	reflectomet%refl_receive(:)%iq_receiver%values_im (vecflt_type) (7.9.5.1.14)
antenna_ind (2847)	reflectomet%refl_receive(:)%antenna_ind (integer) (7.9.5.1.3)
codeparam (2847)	reflectomet%refl_receive(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	reflectomet%refl_receive(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	reflectomet%refl_receive(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	reflectomet%refl_receive(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	reflectomet%refl_receive(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	reflectomet%refl_receive(:)%codeparam%output_flag (integer) (7.9.5.1.3)
antennas (2569)	reflectomet%antennas(:) (reflectometry_antennas) (7.9.5.1.333)
name (2848)	reflectomet%antennas(:)%name (string) (7.9.5.1.4)
type (2848)	reflectomet%antennas(:)%type (identifier) (7.9.5.1.231)
id (2746)	reflectomet%antennas(:)%type%id (string) (7.9.5.1.4)
flag (2746)	reflectomet%antennas(:)%type%flag (integer) (7.9.5.1.3)
description (2746)	reflectomet%antennas(:)%type%description (string) (7.9.5.1.4)
origin (2848)	reflectomet%antennas(:)%origin (float) (7.9.5.1.2)
radfield (2848)	reflectomet%antennas(:)%radfield (reflectometry_radfield) (7.9.5.1.334)
type (2849)	reflectomet%antennas(:)%radfield%type (identifier) (7.9.5.1.231)
id (2746)	reflectomet%antennas(:)%radfield%type%id (string) (7.9.5.1.4)
flag (2746)	reflectomet%antennas(:)%radfield%type%flag (integer) (7.9.5.1.3)
description (2746)	reflectomet%antennas(:)%radfield%type%description (string) (7.9.5.1.4)
position (2849)	reflectomet%antennas(:)%radfield%position (vecflt_type) (7.9.5.1.14)
gaussian (2849)	reflectomet%antennas(:)%radfield%gaussian(:) (reflectometry_radfield_gaussian) (7.9.5.1.335)
aperture (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture (simp_apert) (7.9.5.1.383)
type (2898)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type (identifier) (7.9.5.1.231)
id (2746)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%id (string) (7.9.5.1.4)
flag (2746)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%flag (integer) (7.9.5.1.3)
description (2746)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%description (string) (7.9.5.1.4)
sizes (2898)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%sizes (vecflt_type) (7.9.5.1.14)
angle (2898)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%angle (float) (7.9.5.1.2)
waistsize (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%waistsize (vecflt_type) (7.9.5.1.14)
waistzpos (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%waistzpos (vecflt_type) (7.9.5.1.14)
tiltangle (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%tiltangle (vecflt_type) (7.9.5.1.14)
polar_angle (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%polar_angle (vecflt_type) (7.9.5.1.14)
frequency (2850)	reflectomet%antennas(:)%radfield%gaussian(:)%frequency (float) (7.9.5.1.2)
efield (2849)	reflectomet%antennas(:)%radfield%efield(:) (reflectometry_radifield_efield) (7.9.5.1.336)
grid2d (2851)	reflectomet%antennas(:)%radfield%efield(:)%grid2d (reggrid) (7.9.5.1.337)
dim1 (2852)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2852)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim2 (vecflt_type) (7.9.5.1.14)
e1 (2851)	reflectomet%antennas(:)%radfield%efield(:)%e1 (matcplx_type) (7.9.5.1.256)
re (2771)	reflectomet%antennas(:)%radfield%efield(:)%e1%re (matflt_type) (7.9.5.1.12)
im (2771)	reflectomet%antennas(:)%radfield%efield(:)%e1%im (matflt_type) (7.9.5.1.12)
e2 (2851)	reflectomet%antennas(:)%radfield%efield(:)%e2 (matcplx_type) (7.9.5.1.256)
re (2771)	reflectomet%antennas(:)%radfield%efield(:)%e2%re (matflt_type) (7.9.5.1.12)
im (2771)	reflectomet%antennas(:)%radfield%efield(:)%e2%im (matflt_type) (7.9.5.1.12)
frequency (2851)	reflectomet%antennas(:)%radfield%efield(:)%frequency (float) (7.9.5.1.2)
geometry (2848)	reflectomet%antennas(:)%geometry (float) (7.9.5.1.2)
launchsignal (2848)	reflectomet%antennas(:)%launchsignal (float) (7.9.5.1.2)
time (2569)	reflectomet%time (float) (7.9.5.1.2)

7.9.5.2.37 rfadiag

datainfo (2570)	rfadiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	rfadiag%datainfo%dataprovider (string) (7.9.5.1.4)

putdate (2653)	rfadiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	rfadiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	rfadiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	rfadiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	rfadiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	rfadiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	rfadiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	rfadiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	rfadiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	rfadiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	rfadiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	rfadiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	rfadiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	rfadiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	rfadiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	rfadiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	rfadiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2570)	rfadiag%setup (rfasetup) (7.9.5.1.339)
position (2854)	rfadiag%setup%position (rzphi1Dexp) (7.9.5.1.349)
r (2864)	rfadiag%setup%position%r (exp1D) (7.9.5.1.198)
value (2713)	rfadiag%setup%position%r%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	rfadiag%setup%position%r%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	rfadiag%setup%position%r%relerror (vecflt_type) (7.9.5.1.14)
z (2864)	rfadiag%setup%position%z (exp1D) (7.9.5.1.198)
value (2713)	rfadiag%setup%position%z%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	rfadiag%setup%position%z%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	rfadiag%setup%position%z%relerror (vecflt_type) (7.9.5.1.14)
phi (2864)	rfadiag%setup%position%phi (exp1D) (7.9.5.1.198)
value (2713)	rfadiag%setup%position%phi%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	rfadiag%setup%position%phi%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	rfadiag%setup%position%phi%relerror (vecflt_type) (7.9.5.1.14)
measure (2570)	rfadiag%measure (rfameasure) (7.9.5.1.338)
ti (2853)	rfadiag%measure%ti (exp1D) (7.9.5.1.198)
value (2713)	rfadiag%measure%ti%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	rfadiag%measure%ti%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	rfadiag%measure%ti%relerror (vecflt_type) (7.9.5.1.14)
time (2570)	rfadiag%time (float) (7.9.5.1.2)

7.9.5.2.38 sawteeth

datainfo (2571)	sawteeth%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	sawteeth%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	sawteeth%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	sawteeth%datainfo%source (string) (7.9.5.1.4)
comment (2653)	sawteeth%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	sawteeth%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	sawteeth%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	sawteeth%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	sawteeth%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	sawteeth%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	sawteeth%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	sawteeth%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	sawteeth%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	sawteeth%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	sawteeth%datainfo%putinfo%rights (string) (7.9.5.1.4)
crash_trig (2571)	sawteeth%crash_trig (integer) (7.9.5.1.3)
composition (2571)	sawteeth%composition (composition) (7.9.5.1.101)

amn (2616)	sawteeth%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	sawteeth%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	sawteeth%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	sawteeth%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	sawteeth%composition%label (vecstring_type) (7.9.5.1.16)
rho_tor_norm (2571)	sawteeth%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2571)	sawteeth%rho_tor (vecflt_type) (7.9.5.1.14)
profiles1d (2571)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.5.1.354)
ne (2869)	sawteeth%profiles1d%ne (vecflt_type) (7.9.5.1.14)
ni (2869)	sawteeth%profiles1d%ni (matflt_type) (7.9.5.1.12)
te (2869)	sawteeth%profiles1d%te (vecflt_type) (7.9.5.1.14)
ti (2869)	sawteeth%profiles1d%ti (matflt_type) (7.9.5.1.12)
psi (2869)	sawteeth%profiles1d%psi (vecflt_type) (7.9.5.1.14)
phi (2869)	sawteeth%profiles1d%phi (vecflt_type) (7.9.5.1.14)
psistar (2869)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.5.1.14)
volume (2869)	sawteeth%profiles1d%volume (vecflt_type) (7.9.5.1.14)
q (2869)	sawteeth%profiles1d%q (vecflt_type) (7.9.5.1.14)
diags (2571)	sawteeth%diags (sawteeth_diags) (7.9.5.1.353)
shear1 (2868)	sawteeth%diags%shear1 (float) (7.9.5.1.2)
rhotorn_q1 (2868)	sawteeth%diags%rhotorn_q1 (float) (7.9.5.1.2)
rhotorn_inv (2868)	sawteeth%diags%rhotorn_inv (float) (7.9.5.1.2)
rhotorn_mix (2868)	sawteeth%diags%rhotorn_mix (float) (7.9.5.1.2)
codeparam (2571)	sawteeth%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	sawteeth%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	sawteeth%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	sawteeth%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	sawteeth%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	sawteeth%codeparam%output_flag (integer) (7.9.5.1.3)
time (2571)	sawteeth%time (float) (7.9.5.1.2)

7.9.5.2.39 scenario

datainfo (2572)	scenario%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	scenario%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	scenario%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	scenario%datainfo%source (string) (7.9.5.1.4)
comment (2653)	scenario%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	scenario%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	scenario%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	scenario%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	scenario%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	scenario%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	scenario%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	scenario%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	scenario%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	scenario%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	scenario%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	scenario%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	scenario%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	scenario%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	scenario%datainfo%putinfo%rights (string) (7.9.5.1.4)
centre (2572)	scenario%centre (scenario_centre) (7.9.5.1.355)
te0 (2870)	scenario%centre%te0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%te0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%te0%source (string) (7.9.5.1.4)
ti0 (2870)	scenario%centre%ti0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%ti0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%ti0%source (string) (7.9.5.1.4)
ne0 (2870)	scenario%centre%ne0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%ne0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%ne0%source (string) (7.9.5.1.4)

ni0 (2870)	scenario%centre%ni0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%ni0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%ni0%source (string) (7.9.5.1.4)
shift0 (2870)	scenario%centre%shift0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%shift0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%shift0%source (string) (7.9.5.1.4)
psi0 (2870)	scenario%centre%psi0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%psi0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%psi0%source (string) (7.9.5.1.4)
phi0 (2870)	scenario%centre%phi0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%phi0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%phi0%source (string) (7.9.5.1.4)
q0 (2870)	scenario%centre%q0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%q0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%q0%source (string) (7.9.5.1.4)
Rmag (2870)	scenario%centre%Rmag (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%Rmag%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%Rmag%source (string) (7.9.5.1.4)
Zmag (2870)	scenario%centre%Zmag (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%Zmag%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%Zmag%source (string) (7.9.5.1.4)
vtor_0 (2870)	scenario%centre%vtor_0 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%centre%vtor_0%value (float) (7.9.5.1.2)
source (2887)	scenario%centre%vtor_0%source (string) (7.9.5.1.4)
composition (2572)	scenario%composition (scenario_composition) (7.9.5.1.356)
amn (2871)	scenario%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2871)	scenario%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2871)	scenario%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2871)	scenario%composition%imp_flag (vecint_type) (7.9.5.1.15)
rot_imp_flag (2871)	scenario%composition%rot_imp_flag (vecint_type) (7.9.5.1.15)
pellet_amn (2871)	scenario%composition%pellet_amn (vecflt_type) (7.9.5.1.14)
pellet_zn (2871)	scenario%composition%pellet_zn (vecflt_type) (7.9.5.1.14)
nbi_amn (2871)	scenario%composition%nbi_amn (vecflt_type) (7.9.5.1.14)
nbi_zn (2871)	scenario%composition%nbi_zn (vecflt_type) (7.9.5.1.14)
configs (2572)	scenario%configs (scenario_configuration) (7.9.5.1.357)
config (2872)	scenario%configs%config (scenario_int) (7.9.5.1.364)
value (2879)	scenario%configs%config%value (integer) (7.9.5.1.3)
source (2879)	scenario%configs%config%source (string) (7.9.5.1.4)
lmode_sc (2872)	scenario%configs%lmode_sc (string) (7.9.5.1.4)
hmode_sc (2872)	scenario%configs%hmode_sc (string) (7.9.5.1.4)
core_sc (2872)	scenario%configs%core_sc (string) (7.9.5.1.4)
pedestal_sc (2872)	scenario%configs%pedestal_sc (string) (7.9.5.1.4)
helium_sc (2872)	scenario%configs%helium_sc (string) (7.9.5.1.4)
impurity_sc (2872)	scenario%configs%impurity_sc (string) (7.9.5.1.4)
l2h_sc (2872)	scenario%configs%l2h_sc (string) (7.9.5.1.4)
tor_rot_sc (2872)	scenario%configs%tor_rot_sc (string) (7.9.5.1.4)
wall_mat (2872)	scenario%configs%wall_mat (string) (7.9.5.1.4)
evap_mat (2872)	scenario%configs%evap_mat (string) (7.9.5.1.4)
lim_mat (2872)	scenario%configs%lim_mat (string) (7.9.5.1.4)
div_mat (2872)	scenario%configs%div_mat (string) (7.9.5.1.4)
coordinate (2872)	scenario%configs%coordinate (string) (7.9.5.1.4)
ecrh_freq (2872)	scenario%configs%ecrh_freq (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%ecrh_freq%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%ecrh_freq%source (string) (7.9.5.1.4)
ecrh_loc (2872)	scenario%configs%ecrh_loc (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%ecrh_loc%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%ecrh_loc%source (string) (7.9.5.1.4)
ecrh_mode (2872)	scenario%configs%ecrh_mode (scenario_int) (7.9.5.1.364)
value (2879)	scenario%configs%ecrh_mode%value (integer) (7.9.5.1.3)
source (2879)	scenario%configs%ecrh_mode%source (string) (7.9.5.1.4)
ecrh_tor_ang (2872)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.5.1.372)

value (2887)	scenario%configs%ecrh_tor_ang%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%ecrh_tor_ang%source (string) (7.9.5.1.4)
ecrh_pol_ang (2872)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%ecrh_pol_ang%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%ecrh_pol_ang%source (string) (7.9.5.1.4)
ecrh_harm (2872)	scenario%configs%ecrh_harm (scenario_int) (7.9.5.1.364)
value (2879)	scenario%configs%ecrh_harm%value (integer) (7.9.5.1.3)
source (2879)	scenario%configs%ecrh_harm%source (string) (7.9.5.1.4)
enbi (2872)	scenario%configs%enbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%enbi%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%enbi%source (string) (7.9.5.1.4)
r_nbi (2872)	scenario%configs%r_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%r_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%r_nbi%source (string) (7.9.5.1.4)
grad_b_drift (2872)	scenario%configs%grad_b_drift (scenario_int) (7.9.5.1.364)
value (2879)	scenario%configs%grad_b_drift%value (integer) (7.9.5.1.3)
source (2879)	scenario%configs%grad_b_drift%source (string) (7.9.5.1.4)
icrh_freq (2872)	scenario%configs%icrh_freq (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%icrh_freq%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%icrh_freq%source (string) (7.9.5.1.4)
icrh_scheme (2872)	scenario%configs%icrh_scheme (string) (7.9.5.1.4)
icrh_phase (2872)	scenario%configs%icrh_phase (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%icrh_phase%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%icrh_phase%source (string) (7.9.5.1.4)
LH_freq (2872)	scenario%configs%LH_freq (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%LH_freq%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%LH_freq%source (string) (7.9.5.1.4)
LH_npar (2872)	scenario%configs%LH_npar (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%LH_npar%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%LH_npar%source (string) (7.9.5.1.4)
pellet_ang (2872)	scenario%configs%pellet_ang (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%pellet_ang%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%pellet_ang%source (string) (7.9.5.1.4)
pellet_v (2872)	scenario%configs%pellet_v (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%pellet_v%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%pellet_v%source (string) (7.9.5.1.4)
pellet_nba (2872)	scenario%configs%pellet_nba (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%configs%pellet_nba%value (float) (7.9.5.1.2)
source (2887)	scenario%configs%pellet_nba%source (string) (7.9.5.1.4)
confinement (2572)	scenario%confinement (scenario_confinement) (7.9.5.1.358)
tau_e (2873)	scenario%confinement%tau_e (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_e%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_e%source (string) (7.9.5.1.4)
tau_l_sc (2873)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_l_sc%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_l_sc%source (string) (7.9.5.1.4)
tau_h_sc (2873)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_h_sc%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_h_sc%source (string) (7.9.5.1.4)
tau_he (2873)	scenario%confinement%tau_he (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_he%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_he%source (string) (7.9.5.1.4)
tau_e_ee (2873)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_e_ee%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_e_ee%source (string) (7.9.5.1.4)
tau_e_ii (2873)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_e_ii%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_e_ii%source (string) (7.9.5.1.4)
tau_e_ei (2873)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_e_ei%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_e_ei%source (string) (7.9.5.1.4)

tau_cur_diff (2873)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_cur_diff%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_cur_diff%source (string) (7.9.5.1.4)
tau_i_rol (2873)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%confinement%tau_i_rol%value (float) (7.9.5.1.2)
source (2887)	scenario%confinement%tau_i_rol%source (string) (7.9.5.1.4)
currents (2572)	scenario%currents (scenario_currents) (7.9.5.1.359)
RR (2874)	scenario%currents%RR (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%RR%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%RR%source (string) (7.9.5.1.4)
i_align (2874)	scenario%currents%i_align (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_align%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_align%source (string) (7.9.5.1.4)
i_boot (2874)	scenario%currents%i_boot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_boot%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_boot%source (string) (7.9.5.1.4)
i_cd_tot (2874)	scenario%currents%i_cd_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_cd_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_cd_tot%source (string) (7.9.5.1.4)
i_eccd (2874)	scenario%currents%i_eccd (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_eccd%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_eccd%source (string) (7.9.5.1.4)
i_fast_ion (2874)	scenario%currents%i_fast_ion (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_fast_ion%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_fast_ion%source (string) (7.9.5.1.4)
i_fwcd (2874)	scenario%currents%i_fwcd (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_fwcd%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_fwcd%source (string) (7.9.5.1.4)
i_lhcd (2874)	scenario%currents%i_lhcd (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_lhcd%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_lhcd%source (string) (7.9.5.1.4)
i_nbicd (2874)	scenario%currents%i_nbicd (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_nbicd%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_nbicd%source (string) (7.9.5.1.4)
i_ni_tot (2874)	scenario%currents%i_ni_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_ni_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_ni_tot%source (string) (7.9.5.1.4)
i_ohm (2874)	scenario%currents%i_ohm (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_ohm%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_ohm%source (string) (7.9.5.1.4)
i_par (2874)	scenario%currents%i_par (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_par%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_par%source (string) (7.9.5.1.4)
i_runaway (2874)	scenario%currents%i_runaway (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%i_runaway%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%i_runaway%source (string) (7.9.5.1.4)
v_loop (2874)	scenario%currents%v_loop (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%v_loop%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%v_loop%source (string) (7.9.5.1.4)
v_meas (2874)	scenario%currents%v_meas (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%currents%v_meas%value (float) (7.9.5.1.2)
source (2887)	scenario%currents%v_meas%source (string) (7.9.5.1.4)
edge (2572)	scenario%edge (scenario_edge) (7.9.5.1.360)
te_edge (2875)	scenario%edge%te_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%te_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%te_edge%source (string) (7.9.5.1.4)
ti_edge (2875)	scenario%edge%ti_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%ti_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%ti_edge%source (string) (7.9.5.1.4)
ne_edge (2875)	scenario%edge%ne_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%ne_edge%value (float) (7.9.5.1.2)

source (2887)	scenario%edge%ne_edge%source (string) (7.9.5.1.4)
ni_edge (2875)	scenario%edge%ni_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%ni_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%ni_edge%source (string) (7.9.5.1.4)
psi_edge (2875)	scenario%edge%psi_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%psi_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%psi_edge%source (string) (7.9.5.1.4)
phi_edge (2875)	scenario%edge%phi_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%phi_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%phi_edge%source (string) (7.9.5.1.4)
rho_edge (2875)	scenario%edge%rho_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%rho_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%rho_edge%source (string) (7.9.5.1.4)
drho_edge_dt (2875)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%drho_edge_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%drho_edge_dt%source (string) (7.9.5.1.4)
q_edge (2875)	scenario%edge%q_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%q_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%q_edge%source (string) (7.9.5.1.4)
neutral_flux (2875)	scenario%edge%neutral_flux (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%neutral_flux%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%neutral_flux%source (string) (7.9.5.1.4)
phi_plasma (2875)	scenario%edge%phi_plasma (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%phi_plasma%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%phi_plasma%source (string) (7.9.5.1.4)
vtor_edge (2875)	scenario%edge%vtor_edge (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%edge%vtor_edge%value (float) (7.9.5.1.2)
source (2887)	scenario%edge%vtor_edge%source (string) (7.9.5.1.4)
energy (2572)	scenario%energy (scenario_energy) (7.9.5.1.361)
w_tot (2876)	scenario%energy%w_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%w_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%w_tot%source (string) (7.9.5.1.4)
w_b_pol (2876)	scenario%energy%w_b_pol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%w_b_pol%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%w_b_pol%source (string) (7.9.5.1.4)
w_dia (2876)	scenario%energy%w_dia (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%w_dia%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%w_dia%source (string) (7.9.5.1.4)
dwdia_dt (2876)	scenario%energy%dwdia_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%dwdia_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%dwdia_dt%source (string) (7.9.5.1.4)
w_b_tor_pla (2876)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%w_b_tor_pla%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%w_b_tor_pla%source (string) (7.9.5.1.4)
w_th (2876)	scenario%energy%w_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%w_th%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%w_th%source (string) (7.9.5.1.4)
dwtot_dt (2876)	scenario%energy%dwtot_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%dwtot_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%dwtot_dt%source (string) (7.9.5.1.4)
dwbpol_dt (2876)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%dwbpol_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%dwbpol_dt%source (string) (7.9.5.1.4)
dwbtorpla_dt (2876)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%dwbtorpla_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%dwbtorpla_dt%source (string) (7.9.5.1.4)
dwth_dt (2876)	scenario%energy%dwth_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%dwth_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%dwth_dt%source (string) (7.9.5.1.4)
esup_icrhtot (2876)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_icrhtot%value (float) (7.9.5.1.2)

source (2887)	scenario%energy%esup_icrhtot%source (string) (7.9.5.1.4)
esup_icrhper (2876)	scenario%energy%esup_icrhper (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_icrhper%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%esup_icrhper%source (string) (7.9.5.1.4)
esup_nbitot (2876)	scenario%energy%esup_nbitot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_nbitot%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%esup_nbitot%source (string) (7.9.5.1.4)
esup_nbiperp (2876)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_nbiperp%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%esup_nbiperp%source (string) (7.9.5.1.4)
esup_lhcd (2876)	scenario%energy%esup_lhcd (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_lhcd%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%esup_lhcd%source (string) (7.9.5.1.4)
esup_alpha (2876)	scenario%energy%esup_alpha (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%energy%esup_alpha%value (float) (7.9.5.1.2)
source (2887)	scenario%energy%esup_alpha%source (string) (7.9.5.1.4)
eqgeometry (2572)	scenario%eqgeometry (eqgeometry) (7.9.5.1.192)
source (2707)	scenario%eqgeometry%source (string) (7.9.5.1.4)
boundarytype (2707)	scenario%eqgeometry%boundarytype (integer) (7.9.5.1.3)
boundary (2707)	scenario%eqgeometry%boundary(:) (rz1Dexp) (7.9.5.1.344)
r (2859)	scenario%eqgeometry%boundary(:)%r (vecflt_type) (7.9.5.1.14)
z (2859)	scenario%eqgeometry%boundary(:)%z (vecflt_type) (7.9.5.1.14)
geom_axis (2707)	scenario%eqgeometry%geom_axis (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%geom_axis%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%geom_axis%z (float) (7.9.5.1.2)
a_minor (2707)	scenario%eqgeometry%a_minor (float) (7.9.5.1.2)
elongation (2707)	scenario%eqgeometry%elongation (float) (7.9.5.1.2)
elong_upper (2707)	scenario%eqgeometry%elong_upper (float) (7.9.5.1.2)
elong_lower (2707)	scenario%eqgeometry%elong_lower (float) (7.9.5.1.2)
tria_upper (2707)	scenario%eqgeometry%tria_upper (float) (7.9.5.1.2)
tria_lower (2707)	scenario%eqgeometry%tria_lower (float) (7.9.5.1.2)
xpts (2707)	scenario%eqgeometry%xpts(:) (rz1Dexp) (7.9.5.1.344)
r (2859)	scenario%eqgeometry%xpts(:)%r (vecflt_type) (7.9.5.1.14)
z (2859)	scenario%eqgeometry%xpts(:)%z (vecflt_type) (7.9.5.1.14)
left_low_st (2707)	scenario%eqgeometry%left_low_st (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%left_low_st%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%left_low_st%z (float) (7.9.5.1.2)
right_low_st (2707)	scenario%eqgeometry%right_low_st (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%right_low_st%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%right_low_st%z (float) (7.9.5.1.2)
left_up_st (2707)	scenario%eqgeometry%left_up_st (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%left_up_st%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%left_up_st%z (float) (7.9.5.1.2)
right_up_st (2707)	scenario%eqgeometry%right_up_st (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%right_up_st%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%right_up_st%z (float) (7.9.5.1.2)
active_limit (2707)	scenario%eqgeometry%active_limit (rz0D) (7.9.5.1.341)
r (2856)	scenario%eqgeometry%active_limit%r (float) (7.9.5.1.2)
z (2856)	scenario%eqgeometry%active_limit%z (float) (7.9.5.1.2)
ang_lcms_upo (2707)	scenario%eqgeometry%ang_lcms_upo (float) (7.9.5.1.2)
ang_lcms_upi (2707)	scenario%eqgeometry%ang_lcms_upi (float) (7.9.5.1.2)
ang_lcms_lwo (2707)	scenario%eqgeometry%ang_lcms_lwo (float) (7.9.5.1.2)
ang_lcms_lwi (2707)	scenario%eqgeometry%ang_lcms_lwi (float) (7.9.5.1.2)
global_param (2572)	scenario%global_param (scenario_global) (7.9.5.1.362)
ip (2877)	scenario%global_param%ip (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%ip%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%ip%source (string) (7.9.5.1.4)
dip_dt (2877)	scenario%global_param%dip_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%dip_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%dip_dt%source (string) (7.9.5.1.4)
beta_pol (2877)	scenario%global_param%beta_pol (scenario_ref) (7.9.5.1.372)

value (2887)	scenario%global_param%beta_pol%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_pol%source (string) (7.9.5.1.4)
beta_tor (2877)	scenario%global_param%beta_tor (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%beta_tor%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_tor%source (string) (7.9.5.1.4)
beta_normal (2877)	scenario%global_param%beta_normal (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%beta_normal%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_normal%source (string) (7.9.5.1.4)
li (2877)	scenario%global_param%li (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%li%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%li%source (string) (7.9.5.1.4)
volume (2877)	scenario%global_param%volume (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%volume%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%volume%source (string) (7.9.5.1.4)
area_pol (2877)	scenario%global_param%area_pol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%area_pol%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%area_pol%source (string) (7.9.5.1.4)
area_ext (2877)	scenario%global_param%area_ext (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%area_ext%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%area_ext%source (string) (7.9.5.1.4)
len_sepa (2877)	scenario%global_param%len_sepa (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%len_sepa%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%len_sepa%source (string) (7.9.5.1.4)
beta_pol_th (2877)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%beta_pol_th%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_pol_th%source (string) (7.9.5.1.4)
beta_tor_th (2877)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%beta_tor_th%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_tor_th%source (string) (7.9.5.1.4)
beta_n_th (2877)	scenario%global_param%beta_n_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%beta_n_th%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%beta_n_th%source (string) (7.9.5.1.4)
disruption (2877)	scenario%global_param%disruption (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%disruption%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%disruption%source (string) (7.9.5.1.4)
mode_h (2877)	scenario%global_param%mode_h (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%mode_h%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%mode_h%source (string) (7.9.5.1.4)
s_alpha (2877)	scenario%global_param%s_alpha (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%global_param%s_alpha%value (float) (7.9.5.1.2)
source (2887)	scenario%global_param%s_alpha%source (string) (7.9.5.1.4)
heat_power (2572)	scenario%heat_power (scenario_heat_power) (7.9.5.1.363)
plh (2878)	scenario%heat_power%plh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%plh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%plh%source (string) (7.9.5.1.4)
pohmic (2878)	scenario%heat_power%pohmic (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pohmic%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pohmic%source (string) (7.9.5.1.4)
picrh (2878)	scenario%heat_power%picrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%picrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%picrh%source (string) (7.9.5.1.4)
pecrh (2878)	scenario%heat_power%pecrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pecrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pecrh%source (string) (7.9.5.1.4)
pnbi (2878)	scenario%heat_power%pnbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pnbi%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pnbi%source (string) (7.9.5.1.4)
pnbi_co_cur (2878)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.5.1.4)
pnbi_counter (2878)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.5.1.372)

value (2887)	scenario%heat_power%pnbi_counter%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pnbi_counter%source (string) (7.9.5.1.4)
plh_th (2878)	scenario%heat_power%plh_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%plh_th%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%plh_th%source (string) (7.9.5.1.4)
picrh_th (2878)	scenario%heat_power%picrh_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%picrh_th%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%picrh_th%source (string) (7.9.5.1.4)
pecrh_th (2878)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pecrh_th%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pecrh_th%source (string) (7.9.5.1.4)
pnbi_th (2878)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pnbi_th%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pnbi_th%source (string) (7.9.5.1.4)
ploss_icrh (2878)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%ploss_icrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%ploss_icrh%source (string) (7.9.5.1.4)
ploss_nbi (2878)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%ploss_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%ploss_nbi%source (string) (7.9.5.1.4)
pbrem (2878)	scenario%heat_power%pbrem (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pbrem%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pbrem%source (string) (7.9.5.1.4)
pcyclo (2878)	scenario%heat_power%pcyclo (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pcyclo%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pcyclo%source (string) (7.9.5.1.4)
prad (2878)	scenario%heat_power%prad (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%prad%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%prad%source (string) (7.9.5.1.4)
pdd_fus (2878)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pdd_fus%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pdd_fus%source (string) (7.9.5.1.4)
pei (2878)	scenario%heat_power%pei (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pei%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pei%source (string) (7.9.5.1.4)
pel_tot (2878)	scenario%heat_power%pel_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pel_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pel_tot%source (string) (7.9.5.1.4)
pel_fus (2878)	scenario%heat_power%pel_fus (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pel_fus%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pel_fus%source (string) (7.9.5.1.4)
pel_icrh (2878)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pel_icrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pel_icrh%source (string) (7.9.5.1.4)
pel_nbi (2878)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pel_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pel_nbi%source (string) (7.9.5.1.4)
pfus_dt (2878)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pfus_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pfus_dt%source (string) (7.9.5.1.4)
ploss_fus (2878)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%ploss_fus%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%ploss_fus%source (string) (7.9.5.1.4)
pfus_nbi (2878)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pfus_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pfus_nbi%source (string) (7.9.5.1.4)
pfus_th (2878)	scenario%heat_power%pfus_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pfus_th%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pfus_th%source (string) (7.9.5.1.4)
padd_tot (2878)	scenario%heat_power%padd_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%padd_tot%value (float) (7.9.5.1.2)

source (2887)	scenario%heat_power%padd_tot%source (string) (7.9.5.1.4)
pion_tot (2878)	scenario%heat_power%pion_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pion_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pion_tot%source (string) (7.9.5.1.4)
pion_fus (2878)	scenario%heat_power%pion_fus (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pion_fus%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pion_fus%source (string) (7.9.5.1.4)
pion_icrh (2878)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pion_icrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pion_icrh%source (string) (7.9.5.1.4)
pion_nbi (2878)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pion_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pion_nbi%source (string) (7.9.5.1.4)
pioniz (2878)	scenario%heat_power%pioniz (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%pioniz%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%pioniz%source (string) (7.9.5.1.4)
ploss (2878)	scenario%heat_power%ploss (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%ploss%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%ploss%source (string) (7.9.5.1.4)
p_wth (2878)	scenario%heat_power%p_wth (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%p_wth%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%p_wth%source (string) (7.9.5.1.4)
p_w (2878)	scenario%heat_power%p_w (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%p_w%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%p_w%source (string) (7.9.5.1.4)
p_l2h_thr (2878)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%p_l2h_thr%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%p_l2h_thr%source (string) (7.9.5.1.4)
p_l2h_sc (2878)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%p_l2h_sc%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%p_l2h_sc%source (string) (7.9.5.1.4)
p_nbi_icrh (2878)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.5.1.2)
source (2887)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.5.1.4)
itb (2572)	scenario%itb (scenario_itb) (7.9.5.1.365)
q_min (2880)	scenario%itb%q_min (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%q_min%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%q_min%source (string) (7.9.5.1.4)
te_itb (2880)	scenario%itb%te_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%te_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%te_itb%source (string) (7.9.5.1.4)
ti_itb (2880)	scenario%itb%ti_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%ti_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%ti_itb%source (string) (7.9.5.1.4)
ne_itb (2880)	scenario%itb%ne_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%ne_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%ne_itb%source (string) (7.9.5.1.4)
ni_itb (2880)	scenario%itb%ni_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%ni_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%ni_itb%source (string) (7.9.5.1.4)
psi_itb (2880)	scenario%itb%psi_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%psi_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%psi_itb%source (string) (7.9.5.1.4)
phi_itb (2880)	scenario%itb%phi_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%phi_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%phi_itb%source (string) (7.9.5.1.4)
rho_itb (2880)	scenario%itb%rho_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%rho_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%rho_itb%source (string) (7.9.5.1.4)
h_itb (2880)	scenario%itb%h_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%h_itb%value (float) (7.9.5.1.2)

source (2887)	scenario%itb%h_itb%source (string) (7.9.5.1.4)
width_itb (2880)	scenario%itb%width_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%width_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%width_itb%source (string) (7.9.5.1.4)
vtor_itb (2880)	scenario%itb%vtor_itb (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%itb%vtor_itb%value (float) (7.9.5.1.2)
source (2887)	scenario%itb%vtor_itb%source (string) (7.9.5.1.4)
itb_type (2880)	scenario%itb%itb_type (scenario_int) (7.9.5.1.364)
value (2879)	scenario%itb%itb_type%value (integer) (7.9.5.1.3)
source (2879)	scenario%itb%itb_type%source (string) (7.9.5.1.4)
lim_div_wall (2572)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.5.1.366)
te_lim_div (2881)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.5.1.4)
ti_lim_div (2881)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.5.1.4)
ne_lim_div (2881)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.5.1.4)
ni_lim_div (2881)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.5.1.4)
p_peak_div (2881)	scenario%lim_div_wall%p_peak_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%p_peak_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%p_peak_div%source (string) (7.9.5.1.4)
surf_temp (2881)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%surf_temp%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%surf_temp%source (string) (7.9.5.1.4)
p_lim_div (2881)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.5.1.4)
p_rad_div (2881)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.5.1.4)
wall_temp (2881)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%wall_temp%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%wall_temp%source (string) (7.9.5.1.4)
wall_state (2881)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%wall_state%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%wall_state%source (string) (7.9.5.1.4)
detach_state (2881)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%detach_state%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%detach_state%source (string) (7.9.5.1.4)
pump_flux (2881)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%lim_div_wall%pump_flux%value (float) (7.9.5.1.2)
source (2887)	scenario%lim_div_wall%pump_flux%source (string) (7.9.5.1.4)
line_ave (2572)	scenario%line_ave (scenario_line_ave) (7.9.5.1.367)
ne_line (2882)	scenario%line_ave%ne_line (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%line_ave%ne_line%value (float) (7.9.5.1.2)
source (2887)	scenario%line_ave%ne_line%source (string) (7.9.5.1.4)
zeff_line (2882)	scenario%line_ave%zeff_line (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%line_ave%zeff_line%value (float) (7.9.5.1.2)
source (2887)	scenario%line_ave%zeff_line%source (string) (7.9.5.1.4)
ne_zeff_line (2882)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%line_ave%ne_zeff_line%value (float) (7.9.5.1.2)
source (2887)	scenario%line_ave%ne_zeff_line%source (string) (7.9.5.1.4)
dne_line_dt (2882)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%line_ave%dne_line_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%line_ave%dne_line_dt%source (string) (7.9.5.1.4)
neutron (2572)	scenario%neutron (scenario_neutron) (7.9.5.1.368)

ndd_tot (2883)	scenario%neutron%ndd_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndd_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndd_tot%source (string) (7.9.5.1.4)
ndd_th (2883)	scenario%neutron%ndd_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndd_th%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndd_th%source (string) (7.9.5.1.4)
ndd_nbi_th (2883)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndd_nbi_th%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndd_nbi_th%source (string) (7.9.5.1.4)
ndd_nbi_nbi (2883)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.5.1.4)
ndt_tot (2883)	scenario%neutron%ndt_tot (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndt_tot%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndt_tot%source (string) (7.9.5.1.4)
ndt_th (2883)	scenario%neutron%ndt_th (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%neutron%ndt_th%value (float) (7.9.5.1.2)
source (2887)	scenario%neutron%ndt_th%source (string) (7.9.5.1.4)
ninety_five (2572)	scenario%ninety_five (scenario_ninety_five) (7.9.5.1.369)
q_95 (2884)	scenario%ninety_five%q_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%q_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%q_95%source (string) (7.9.5.1.4)
elong_95 (2884)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%elong_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%elong_95%source (string) (7.9.5.1.4)
tria_95 (2884)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%tria_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%tria_95%source (string) (7.9.5.1.4)
tria_up_95 (2884)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%tria_up_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%tria_up_95%source (string) (7.9.5.1.4)
tria_lo_95 (2884)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%tria_lo_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%tria_lo_95%source (string) (7.9.5.1.4)
te_95 (2884)	scenario%ninety_five%te_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%te_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%te_95%source (string) (7.9.5.1.4)
ti_95 (2884)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%ti_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%ti_95%source (string) (7.9.5.1.4)
ne_95 (2884)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%ne_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%ne_95%source (string) (7.9.5.1.4)
ni_95 (2884)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%ni_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%ni_95%source (string) (7.9.5.1.4)
phi_95 (2884)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%phi_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%phi_95%source (string) (7.9.5.1.4)
rho_95 (2884)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%rho_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%rho_95%source (string) (7.9.5.1.4)
vtor_95 (2884)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%ninety_five%vtor_95%value (float) (7.9.5.1.2)
source (2887)	scenario%ninety_five%vtor_95%source (string) (7.9.5.1.4)
pedestal (2572)	scenario%pedestal (scenario_pedestal) (7.9.5.1.370)
te_ped (2885)	scenario%pedestal%te_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%te_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%te_ped%source (string) (7.9.5.1.4)
ti_ped (2885)	scenario%pedestal%ti_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%ti_ped%value (float) (7.9.5.1.2)

source (2887)	scenario%pedestal%ti_ped%source (string) (7.9.5.1.4)
ne_ped (2885)	scenario%pedestal%ne_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%ne_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%ne_ped%source (string) (7.9.5.1.4)
ni_ped (2885)	scenario%pedestal%ni_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%ni_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%ni_ped%source (string) (7.9.5.1.4)
psi_ped (2885)	scenario%pedestal%psi_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%psi_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%psi_ped%source (string) (7.9.5.1.4)
phi_ped (2885)	scenario%pedestal%phi_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%phi_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%phi_ped%source (string) (7.9.5.1.4)
rho_ped (2885)	scenario%pedestal%rho_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%rho_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%rho_ped%source (string) (7.9.5.1.4)
q_ped (2885)	scenario%pedestal%q_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%q_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%q_ped%source (string) (7.9.5.1.4)
pressure_ped (2885)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%pressure_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%pressure_ped%source (string) (7.9.5.1.4)
vtor_ped (2885)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%pedestal%vtor_ped%value (float) (7.9.5.1.2)
source (2887)	scenario%pedestal%vtor_ped%source (string) (7.9.5.1.4)
references (2572)	scenario%references (scenario_references) (7.9.5.1.373)
plh (2888)	scenario%references%plh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%plh%value (float) (7.9.5.1.2)
source (2887)	scenario%references%plh%source (string) (7.9.5.1.4)
picrh (2888)	scenario%references%picrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%picrh%value (float) (7.9.5.1.2)
source (2887)	scenario%references%picrh%source (string) (7.9.5.1.4)
pecrh (2888)	scenario%references%pecrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%pecrh%value (float) (7.9.5.1.2)
source (2887)	scenario%references%pecrh%source (string) (7.9.5.1.4)
pnbi (2888)	scenario%references%pnbi (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%pnbi%value (float) (7.9.5.1.2)
source (2887)	scenario%references%pnbi%source (string) (7.9.5.1.4)
ip (2888)	scenario%references%ip (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%ip%value (float) (7.9.5.1.2)
source (2887)	scenario%references%ip%source (string) (7.9.5.1.4)
bvac_r (2888)	scenario%references%bvac_r (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%bvac_r%value (float) (7.9.5.1.2)
source (2887)	scenario%references%bvac_r%source (string) (7.9.5.1.4)
zeffl (2888)	scenario%references%zeffl (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%zeffl%value (float) (7.9.5.1.2)
source (2887)	scenario%references%zeffl%source (string) (7.9.5.1.4)
nbar (2888)	scenario%references%nbar (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%nbar%value (float) (7.9.5.1.2)
source (2887)	scenario%references%nbar%source (string) (7.9.5.1.4)
xecrh (2888)	scenario%references%xecrh (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%xecrh%value (float) (7.9.5.1.2)
source (2887)	scenario%references%xecrh%source (string) (7.9.5.1.4)
pol_flux (2888)	scenario%references%pol_flux (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%pol_flux%value (float) (7.9.5.1.2)
source (2887)	scenario%references%pol_flux%source (string) (7.9.5.1.4)
enhancement (2888)	scenario%references%enhancement (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%enhancement%value (float) (7.9.5.1.2)
source (2887)	scenario%references%enhancement%source (string) (7.9.5.1.4)
isotopic (2888)	scenario%references%isotopic (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%isotopic%value (float) (7.9.5.1.2)

source (2887)	scenario%references%isotopic%source (string) (7.9.5.1.4)
nbi_td_ratio (2888)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%nbi_td_ratio%value (float) (7.9.5.1.2)
source (2887)	scenario%references%nbi_td_ratio%source (string) (7.9.5.1.4)
gas_puff (2888)	scenario%references%gas_puff (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%references%gas_puff%value (float) (7.9.5.1.2)
source (2887)	scenario%references%gas_puff%source (string) (7.9.5.1.4)
reactor (2572)	scenario%reactor (scenario_reactor) (7.9.5.1.371)
pnetwork (2886)	scenario%reactor%pnetwork (float) (7.9.5.1.2)
sol (2572)	scenario%sol (scenario_sol) (7.9.5.1.374)
l_te_sol (2889)	scenario%sol%l_te_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_te_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_te_sol%source (string) (7.9.5.1.4)
l_ti_sol (2889)	scenario%sol%l_ti_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_ti_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_ti_sol%source (string) (7.9.5.1.4)
l_ne_sol (2889)	scenario%sol%l_ne_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_ne_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_ne_sol%source (string) (7.9.5.1.4)
l_ni_sol (2889)	scenario%sol%l_ni_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_ni_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_ni_sol%source (string) (7.9.5.1.4)
l_qe_sol (2889)	scenario%sol%l_qe_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_qe_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_qe_sol%source (string) (7.9.5.1.4)
l_qi_sol (2889)	scenario%sol%l_qi_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%l_qi_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%l_qi_sol%source (string) (7.9.5.1.4)
p_rad_sol (2889)	scenario%sol%p_rad_sol (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%p_rad_sol%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%p_rad_sol%source (string) (7.9.5.1.4)
gas_puff (2889)	scenario%sol%gas_puff (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%sol%gas_puff%value (float) (7.9.5.1.2)
source (2887)	scenario%sol%gas_puff%source (string) (7.9.5.1.4)
vol_ave (2572)	scenario%vol_ave (scenario_vol_ave) (7.9.5.1.375)
te_ave (2890)	scenario%vol_ave%te_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%te_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%te_ave%source (string) (7.9.5.1.4)
ti_ave (2890)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%ti_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%ti_ave%source (string) (7.9.5.1.4)
ne_ave (2890)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%ne_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%ne_ave%source (string) (7.9.5.1.4)
dne_ave_dt (2890)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.5.1.4)
ni_ave (2890)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%ni_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%ni_ave%source (string) (7.9.5.1.4)
zeff_ave (2890)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%zeff_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%zeff_ave%source (string) (7.9.5.1.4)
ti_o_te_ave (2890)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.5.1.4)
meff_ave (2890)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%meff_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%meff_ave%source (string) (7.9.5.1.4)
pellet_flux (2890)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%pellet_flux%value (float) (7.9.5.1.2)

source (2887)	scenario%vol_ave%pellet_flux%source (string) (7.9.5.1.4)
nions_ave (2890)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.5.1.14)
omega_ave (2890)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.5.1.372)
value (2887)	scenario%vol_ave%omega_ave%value (float) (7.9.5.1.2)
source (2887)	scenario%vol_ave%omega_ave%source (string) (7.9.5.1.4)
codeparam (2572)	scenario%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	scenario%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	scenario%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	scenario%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	scenario%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	scenario%codeparam%output_flag (integer) (7.9.5.1.3)
time (2572)	scenario%time (float) (7.9.5.1.2)

7.9.5.2.40 summary

datainfo (2573)	summary%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	summary%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	summary%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	summary%datainfo%source (string) (7.9.5.1.4)
comment (2653)	summary%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	summary%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	summary%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	summary%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	summary%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	summary%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	summary%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	summary%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	summary%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	summary%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	summary%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	summary%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	summary%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	summary%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	summary%datainfo%putinfo%rights (string) (7.9.5.1.4)
ip (2573)	summary%ip (reduced) (7.9.5.1.310)
value (2825)	summary%ip%value (float) (7.9.5.1.2)
source (2825)	summary%ip%source (string) (7.9.5.1.4)
time (2825)	summary%ip%time (float) (7.9.5.1.2)
bvac_r (2573)	summary%bvac_r (reduced) (7.9.5.1.310)
value (2825)	summary%bvac_r%value (float) (7.9.5.1.2)
source (2825)	summary%bvac_r%source (string) (7.9.5.1.4)
time (2825)	summary%bvac_r%time (float) (7.9.5.1.2)
geom_axis_r (2573)	summary%geom_axis_r (reduced) (7.9.5.1.310)
value (2825)	summary%geom_axis_r%value (float) (7.9.5.1.2)
source (2825)	summary%geom_axis_r%source (string) (7.9.5.1.4)
time (2825)	summary%geom_axis_r%time (float) (7.9.5.1.2)
a_minor (2573)	summary%a_minor (reduced) (7.9.5.1.310)
value (2825)	summary%a_minor%value (float) (7.9.5.1.2)
source (2825)	summary%a_minor%source (string) (7.9.5.1.4)
time (2825)	summary%a_minor%time (float) (7.9.5.1.2)
elongation (2573)	summary%elongation (reduced) (7.9.5.1.310)
value (2825)	summary%elongation%value (float) (7.9.5.1.2)
source (2825)	summary%elongation%source (string) (7.9.5.1.4)
time (2825)	summary%elongation%time (float) (7.9.5.1.2)
tria_lower (2573)	summary%tria_lower (reduced) (7.9.5.1.310)
value (2825)	summary%tria_lower%value (float) (7.9.5.1.2)
source (2825)	summary%tria_lower%source (string) (7.9.5.1.4)
time (2825)	summary%tria_lower%time (float) (7.9.5.1.2)
tria_upper (2573)	summary%tria_upper (reduced) (7.9.5.1.310)
value (2825)	summary%tria_upper%value (float) (7.9.5.1.2)
source (2825)	summary%tria_upper%source (string) (7.9.5.1.4)

time (2825)	summary%tria_upper%time (float) (7.9.5.1.2)
tev (2573)	summary%tev (reduced) (7.9.5.1.310)
value (2825)	summary%tev%value (float) (7.9.5.1.2)
source (2825)	summary%tev%source (string) (7.9.5.1.4)
time (2825)	summary%tev%time (float) (7.9.5.1.2)
tiv (2573)	summary%tiv (reduced) (7.9.5.1.310)
value (2825)	summary%tiv%value (float) (7.9.5.1.2)
source (2825)	summary%tiv%source (string) (7.9.5.1.4)
time (2825)	summary%tiv%time (float) (7.9.5.1.2)
nev (2573)	summary%nev (reduced) (7.9.5.1.310)
value (2825)	summary%nev%value (float) (7.9.5.1.2)
source (2825)	summary%nev%source (string) (7.9.5.1.4)
time (2825)	summary%nev%time (float) (7.9.5.1.2)
zeffv (2573)	summary%zeffv (reduced) (7.9.5.1.310)
value (2825)	summary%zeffv%value (float) (7.9.5.1.2)
source (2825)	summary%zeffv%source (string) (7.9.5.1.4)
time (2825)	summary%zeffv%time (float) (7.9.5.1.2)
beta_pol (2573)	summary%beta_pol (reduced) (7.9.5.1.310)
value (2825)	summary%beta_pol%value (float) (7.9.5.1.2)
source (2825)	summary%beta_pol%source (string) (7.9.5.1.4)
time (2825)	summary%beta_pol%time (float) (7.9.5.1.2)
beta_tor (2573)	summary%beta_tor (reduced) (7.9.5.1.310)
value (2825)	summary%beta_tor%value (float) (7.9.5.1.2)
source (2825)	summary%beta_tor%source (string) (7.9.5.1.4)
time (2825)	summary%beta_tor%time (float) (7.9.5.1.2)
beta_normal (2573)	summary%beta_normal (reduced) (7.9.5.1.310)
value (2825)	summary%beta_normal%value (float) (7.9.5.1.2)
source (2825)	summary%beta_normal%source (string) (7.9.5.1.4)
time (2825)	summary%beta_normal%time (float) (7.9.5.1.2)
li (2573)	summary%li (reduced) (7.9.5.1.310)
value (2825)	summary%li%value (float) (7.9.5.1.2)
source (2825)	summary%li%source (string) (7.9.5.1.4)
time (2825)	summary%li%time (float) (7.9.5.1.2)
volume (2573)	summary%volume (reduced) (7.9.5.1.310)
value (2825)	summary%volume%value (float) (7.9.5.1.2)
source (2825)	summary%volume%source (string) (7.9.5.1.4)
time (2825)	summary%volume%time (float) (7.9.5.1.2)
area (2573)	summary%area (reduced) (7.9.5.1.310)
value (2825)	summary%area%value (float) (7.9.5.1.2)
source (2825)	summary%area%source (string) (7.9.5.1.4)
time (2825)	summary%area%time (float) (7.9.5.1.2)
main_ion1_z (2573)	summary%main_ion1_z (reduced) (7.9.5.1.310)
value (2825)	summary%main_ion1_z%value (float) (7.9.5.1.2)
source (2825)	summary%main_ion1_z%source (string) (7.9.5.1.4)
time (2825)	summary%main_ion1_z%time (float) (7.9.5.1.2)
main_ion1_a (2573)	summary%main_ion1_a (reduced) (7.9.5.1.310)
value (2825)	summary%main_ion1_a%value (float) (7.9.5.1.2)
source (2825)	summary%main_ion1_a%source (string) (7.9.5.1.4)
time (2825)	summary%main_ion1_a%time (float) (7.9.5.1.2)
main_ion2_z (2573)	summary%main_ion2_z (reduced) (7.9.5.1.310)
value (2825)	summary%main_ion2_z%value (float) (7.9.5.1.2)
source (2825)	summary%main_ion2_z%source (string) (7.9.5.1.4)
time (2825)	summary%main_ion2_z%time (float) (7.9.5.1.2)
main_ion2_a (2573)	summary%main_ion2_a (reduced) (7.9.5.1.310)
value (2825)	summary%main_ion2_a%value (float) (7.9.5.1.2)
source (2825)	summary%main_ion2_a%source (string) (7.9.5.1.4)
time (2825)	summary%main_ion2_a%time (float) (7.9.5.1.2)
impur1_z (2573)	summary%impur1_z (reduced) (7.9.5.1.310)
value (2825)	summary%impur1_z%value (float) (7.9.5.1.2)
source (2825)	summary%impur1_z%source (string) (7.9.5.1.4)
time (2825)	summary%impur1_z%time (float) (7.9.5.1.2)

impur1_a (2573)	summary%impur1_a (reduced) (7.9.5.1.310)
value (2825)	summary%impur1_a%value (float) (7.9.5.1.2)
source (2825)	summary%impur1_a%source (string) (7.9.5.1.4)
time (2825)	summary%impur1_a%time (float) (7.9.5.1.2)
time (2573)	summary%time (float) (7.9.5.1.2)

7.9.5.2.41 topinfo

dataprovider (2574)	topinfo%dataprovider (string) (7.9.5.1.4)
description (2574)	topinfo%description (string) (7.9.5.1.4)
firstputdate (2574)	topinfo%firstputdate (string) (7.9.5.1.4)
lastupdate (2574)	topinfo%lastupdate (string) (7.9.5.1.4)
source (2574)	topinfo%source (string) (7.9.5.1.4)
comment (2574)	topinfo%comment (string) (7.9.5.1.4)
dataversion (2574)	topinfo%dataversion (string) (7.9.5.1.4)
workflow (2574)	topinfo%workflow (string) (7.9.5.1.4)
entry (2574)	topinfo%entry (entry_def) (7.9.5.1.189)
user (2704)	topinfo%entry%user (string) (7.9.5.1.4)
machine (2704)	topinfo%entry%machine (string) (7.9.5.1.4)
shot (2704)	topinfo%entry%shot (integer) (7.9.5.1.3)
run (2704)	topinfo%entry%run (integer) (7.9.5.1.3)
parent_entry (2574)	topinfo%parent_entry (entry_def) (7.9.5.1.189)
user (2704)	topinfo%parent_entry%user (string) (7.9.5.1.4)
machine (2704)	topinfo%parent_entry%machine (string) (7.9.5.1.4)
shot (2704)	topinfo%parent_entry%shot (integer) (7.9.5.1.3)
run (2704)	topinfo%parent_entry%run (integer) (7.9.5.1.3)
mdinfo (2574)	topinfo%mdinfo (mdinfo) (7.9.5.1.257)
shot_min (2772)	topinfo%mdinfo%shot_min (integer) (7.9.5.1.3)
shot_max (2772)	topinfo%mdinfo%shot_max (integer) (7.9.5.1.3)
md_entry (2772)	topinfo%mdinfo%md_entry (entry_def) (7.9.5.1.189)
user (2704)	topinfo%mdinfo%md_entry%user (string) (7.9.5.1.4)
machine (2704)	topinfo%mdinfo%md_entry%machine (string) (7.9.5.1.4)
shot (2704)	topinfo%mdinfo%md_entry%shot (integer) (7.9.5.1.3)
run (2704)	topinfo%mdinfo%md_entry%run (integer) (7.9.5.1.3)

7.9.5.2.42 toroidfield

datainfo (2575)	toroidfield%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	toroidfield%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	toroidfield%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	toroidfield%datainfo%source (string) (7.9.5.1.4)
comment (2653)	toroidfield%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	toroidfield%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	toroidfield%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	toroidfield%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	toroidfield%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	toroidfield%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	toroidfield%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	toroidfield%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	toroidfield%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	toroidfield%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	toroidfield%datainfo%putinfo%rights (string) (7.9.5.1.4)
desc_tfcoils (2575)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.5.1.409)
type (2924)	toroidfield%desc_tfcoils%type (integer) (7.9.5.1.3)
phi (2924)	toroidfield%desc_tfcoils%phi (float) (7.9.5.1.2)
circularcoil (2924)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.5.1.82)
centre (2597)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.5.1.341)

r (2856)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.5.1.2)
z (2856)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.5.1.2)
hlength (2597)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.5.1.2)
radialhwidth (2597)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.5.1.2)
planecoil (2924)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.5.1.297)
coordinates (2812)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.5.1.342)
r (2857)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.5.1.14)
z (2857)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.5.1.14)
hlength (2812)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.5.1.14)
radialhwidth (2812)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.5.1.14)
structure (2924)	toroidfield%desc_tfcoils%structure (tf_structure) (7.9.5.1.410)
jcable (2925)	toroidfield%desc_tfcoils%structure%jcable (float) (7.9.5.1.2)
tisotf (2925)	toroidfield%desc_tfcoils%structure%tisotf (float) (7.9.5.1.2)
efcasing (2925)	toroidfield%desc_tfcoils%structure%efcasing (float) (7.9.5.1.2)
escasing (2925)	toroidfield%desc_tfcoils%structure%escasing (float) (7.9.5.1.2)
sigjackettf (2925)	toroidfield%desc_tfcoils%structure%sigjackettf (float) (7.9.5.1.2)
sigvaulttf (2925)	toroidfield%desc_tfcoils%structure%sigvaulttf (float) (7.9.5.1.2)
ktf (2925)	toroidfield%desc_tfcoils%structure%ktf (float) (7.9.5.1.2)
ritf (2925)	toroidfield%desc_tfcoils%structure%ritf (float) (7.9.5.1.2)
riitf (2925)	toroidfield%desc_tfcoils%structure%riitf (float) (7.9.5.1.2)
retf (2925)	toroidfield%desc_tfcoils%structure%retf (float) (7.9.5.1.2)
nturns (2575)	toroidfield%nturns (integer) (7.9.5.1.3)
ncoils (2575)	toroidfield%ncoils (integer) (7.9.5.1.3)
current (2575)	toroidfield%current (exp0D) (7.9.5.1.197)
value (2712)	toroidfield%current%value (float) (7.9.5.1.2)
abserror (2712)	toroidfield%current%abserror (float) (7.9.5.1.2)
relerror (2712)	toroidfield%current%relerror (float) (7.9.5.1.2)
bvac_r (2575)	toroidfield%bvac_r (exp0D) (7.9.5.1.197)
value (2712)	toroidfield%bvac_r%value (float) (7.9.5.1.2)
abserror (2712)	toroidfield%bvac_r%abserror (float) (7.9.5.1.2)
relerror (2712)	toroidfield%bvac_r%relerror (float) (7.9.5.1.2)
r0 (2575)	toroidfield%r0 (float) (7.9.5.1.2)
time (2575)	toroidfield%time (float) (7.9.5.1.2)

7.9.5.2.43 tsdiag

datainfo (2576)	tsdiag%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	tsdiag%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	tsdiag%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	tsdiag%datainfo%source (string) (7.9.5.1.4)
comment (2653)	tsdiag%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	tsdiag%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	tsdiag%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	tsdiag%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	tsdiag%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	tsdiag%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	tsdiag%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	tsdiag%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	tsdiag%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	tsdiag%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	tsdiag%datainfo%putinfo%rights (string) (7.9.5.1.4)
setup (2576)	tsdiag%setup (tssetup) (7.9.5.1.420)
position (2935)	tsdiag%setup%position (rzphi1D) (7.9.5.1.348)
r (2863)	tsdiag%setup%position%r (vecflt_type) (7.9.5.1.14)
z (2863)	tsdiag%setup%position%z (vecflt_type) (7.9.5.1.14)
phi (2863)	tsdiag%setup%position%phi (vecflt_type) (7.9.5.1.14)
measure (2576)	tsdiag%measure (tsmeasure) (7.9.5.1.419)

te (2934)	tsdiag%measure%te (exp1D) (7.9.5.1.198)
value (2713)	tsdiag%measure%te%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	tsdiag%measure%te%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	tsdiag%measure%te%relerror (vecflt_type) (7.9.5.1.14)
ne (2934)	tsdiag%measure%ne (exp1D) (7.9.5.1.198)
value (2713)	tsdiag%measure%ne%value (vecflt_type) (7.9.5.1.14)
abserror (2713)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.5.1.14)
relerror (2713)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.5.1.14)
time (2576)	tsdiag%time (float) (7.9.5.1.2)

7.9.5.2.44 turbulence

datainfo (2577)	turbulence%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	turbulence%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	turbulence%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	turbulence%datainfo%source (string) (7.9.5.1.4)
comment (2653)	turbulence%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	turbulence%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	turbulence%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	turbulence%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	turbulence%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	turbulence%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	turbulence%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	turbulence%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	turbulence%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	turbulence%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	turbulence%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	turbulence%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	turbulence%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	turbulence%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	turbulence%datainfo%putinfo%rights (string) (7.9.5.1.4)
composition (2577)	turbulence%composition (turbcomposition) (7.9.5.1.421)
amn (2936)	turbulence%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2936)	turbulence%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2936)	turbulence%composition%zion (vecflt_type) (7.9.5.1.14)
ie_mass (2936)	turbulence%composition%ie_mass (vecflt_type) (7.9.5.1.14)
coordsys (2577)	turbulence%coordsys (turbcoordsys) (7.9.5.1.422)
grid_type (2937)	turbulence%coordsys%grid_type (string) (7.9.5.1.4)
turbgrid (2937)	turbulence%coordsys%turbgrid (turbgrid) (7.9.5.1.424)
dim1 (2939)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.5.1.14)
dim2 (2939)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.5.1.14)
dim3 (2939)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.5.1.14)
dim_v1 (2939)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.5.1.14)
dim_v2 (2939)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.5.1.14)
jacobian (2937)	turbulence%coordsys%jacobian (matflt_type) (7.9.5.1.12)
g_11 (2937)	turbulence%coordsys%g_11 (matflt_type) (7.9.5.1.12)
g_12 (2937)	turbulence%coordsys%g_12 (matflt_type) (7.9.5.1.12)
g_13 (2937)	turbulence%coordsys%g_13 (matflt_type) (7.9.5.1.12)
g_22 (2937)	turbulence%coordsys%g_22 (matflt_type) (7.9.5.1.12)
g_23 (2937)	turbulence%coordsys%g_23 (matflt_type) (7.9.5.1.12)
g_33 (2937)	turbulence%coordsys%g_33 (matflt_type) (7.9.5.1.12)
position (2937)	turbulence%coordsys%position (rzphi3D) (7.9.5.1.351)
r (2866)	turbulence%coordsys%position%r (array3dflt_type) (7.9.5.1.6)
z (2866)	turbulence%coordsys%position%z (array3dflt_type) (7.9.5.1.6)
phi (2866)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.5.1.6)
var0d (2577)	turbulence%var0d (turbvar0d) (7.9.5.1.426)
dtime_type (2941)	turbulence%var0d%dtime_type (string) (7.9.5.1.4)
dtime (2941)	turbulence%var0d%dtime (vecflt_type) (7.9.5.1.14)
en_exb (2941)	turbulence%var0d%en_exb (vecflt_type) (7.9.5.1.14)
en_mag (2941)	turbulence%var0d%en_mag (vecflt_type) (7.9.5.1.14)
en_el_th (2941)	turbulence%var0d%en_el_th (vecflt_type) (7.9.5.1.14)

en_ion_th (2941)	turbulence%var0d%en_ion_th (matflt_type) (7.9.5.1.12)
en_el_par (2941)	turbulence%var0d%en_el_par (vecflt_type) (7.9.5.1.14)
en_ion_par (2941)	turbulence%var0d%en_ion_par (matflt_type) (7.9.5.1.12)
en_tot (2941)	turbulence%var0d%en_tot (vecflt_type) (7.9.5.1.14)
fl_el (2941)	turbulence%var0d%fl_el (vecflt_type) (7.9.5.1.14)
fl_heatel (2941)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.5.1.14)
fl_ion (2941)	turbulence%var0d%fl_ion (matflt_type) (7.9.5.1.12)
fl_heation (2941)	turbulence%var0d%fl_heation (matflt_type) (7.9.5.1.12)
fl_magel (2941)	turbulence%var0d%fl_magel (vecflt_type) (7.9.5.1.14)
fl_magheatel (2941)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.5.1.14)
fl_magion (2941)	turbulence%var0d%fl_magion (matflt_type) (7.9.5.1.12)
flmagheation (2941)	turbulence%var0d%flmagheation (matflt_type) (7.9.5.1.12)
var1d (2577)	turbulence%var1d (turbvar1d) (7.9.5.1.427)
rho_tor_norm (2942)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.5.1.14)
phi (2942)	turbulence%var1d%phi (vecflt_type) (7.9.5.1.14)
er (2942)	turbulence%var1d%er (vecflt_type) (7.9.5.1.14)
vor (2942)	turbulence%var1d%vor (vecflt_type) (7.9.5.1.14)
apl (2942)	turbulence%var1d%apl (vecflt_type) (7.9.5.1.14)
jpl (2942)	turbulence%var1d%jpl (vecflt_type) (7.9.5.1.14)
ne (2942)	turbulence%var1d%ne (vecflt_type) (7.9.5.1.14)
te (2942)	turbulence%var1d%te (vecflt_type) (7.9.5.1.14)
ni (2942)	turbulence%var1d%ni (matflt_type) (7.9.5.1.12)
ti (2942)	turbulence%var1d%ti (matflt_type) (7.9.5.1.12)
ui (2942)	turbulence%var1d%ui (matflt_type) (7.9.5.1.12)
var2d (2577)	turbulence%var2d (turbvar2d) (7.9.5.1.428)
rho_tor_norm (2943)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.5.1.14)
theta (2943)	turbulence%var2d%theta (vecflt_type) (7.9.5.1.14)
phi (2943)	turbulence%var2d%phi (matflt_type) (7.9.5.1.12)
apl (2943)	turbulence%var2d%apl (matflt_type) (7.9.5.1.12)
jpl (2943)	turbulence%var2d%jpl (matflt_type) (7.9.5.1.12)
vor (2943)	turbulence%var2d%vor (matflt_type) (7.9.5.1.12)
ne (2943)	turbulence%var2d%ne (matflt_type) (7.9.5.1.12)
te (2943)	turbulence%var2d%te (matflt_type) (7.9.5.1.12)
ni (2943)	turbulence%var2d%ni (array3dflt_type) (7.9.5.1.6)
ti (2943)	turbulence%var2d%ti (array3dflt_type) (7.9.5.1.6)
ui (2943)	turbulence%var2d%ui (array3dflt_type) (7.9.5.1.6)
var3d (2577)	turbulence%var3d (turbvar3d) (7.9.5.1.429)
phi (2944)	turbulence%var3d%phi (array3dflt_type) (7.9.5.1.6)
vor (2944)	turbulence%var3d%vor (array3dflt_type) (7.9.5.1.6)
jpl (2944)	turbulence%var3d%jpl (array3dflt_type) (7.9.5.1.6)
ne (2944)	turbulence%var3d%ne (array3dflt_type) (7.9.5.1.6)
var4d (2577)	turbulence%var4d (turbvar4d) (7.9.5.1.430)
fe (2945)	turbulence%var4d%fe (array4dflt_type) (7.9.5.1.8)
fi (2945)	turbulence%var4d%fi (array5dflt_type) (7.9.5.1.9)
var5d (2577)	turbulence%var5d (turbvar5d) (7.9.5.1.431)
fe (2946)	turbulence%var5d%fe (array5dflt_type) (7.9.5.1.9)
fi (2946)	turbulence%var5d%fi (array6dflt_type) (7.9.5.1.10)
spec1d (2577)	turbulence%spec1d (turbspec1d) (7.9.5.1.425)
kperp (2940)	turbulence%spec1d%kperp (vecflt_type) (7.9.5.1.14)
phi (2940)	turbulence%spec1d%phi (vecflt_type) (7.9.5.1.14)
vor (2940)	turbulence%spec1d%vor (vecflt_type) (7.9.5.1.14)
b (2940)	turbulence%spec1d%b (vecflt_type) (7.9.5.1.14)
jpl (2940)	turbulence%spec1d%jpl (vecflt_type) (7.9.5.1.14)
ne (2940)	turbulence%spec1d%ne (vecflt_type) (7.9.5.1.14)
te (2940)	turbulence%spec1d%te (vecflt_type) (7.9.5.1.14)
ti (2940)	turbulence%spec1d%ti (matflt_type) (7.9.5.1.12)
fe (2940)	turbulence%spec1d%fe (vecflt_type) (7.9.5.1.14)
qe (2940)	turbulence%spec1d%qe (vecflt_type) (7.9.5.1.14)
qi (2940)	turbulence%spec1d%qi (matflt_type) (7.9.5.1.12)
me (2940)	turbulence%spec1d%me (vecflt_type) (7.9.5.1.14)
mi (2940)	turbulence%spec1d%mi (matflt_type) (7.9.5.1.12)

env1d (2577)	turbulence%env1d (turbenv1d) (7.9.5.1.423)
theta (2938)	turbulence%env1d%theta (vecflt_type) (7.9.5.1.14)
phi (2938)	turbulence%env1d%phi (vecflt_type) (7.9.5.1.14)
vor (2938)	turbulence%env1d%vor (vecflt_type) (7.9.5.1.14)
jpl (2938)	turbulence%env1d%jpl (vecflt_type) (7.9.5.1.14)
ne (2938)	turbulence%env1d%ne (vecflt_type) (7.9.5.1.14)
he (2938)	turbulence%env1d%he (vecflt_type) (7.9.5.1.14)
te (2938)	turbulence%env1d%te (vecflt_type) (7.9.5.1.14)
ni (2938)	turbulence%env1d%ni (matflt_type) (7.9.5.1.12)
ti (2938)	turbulence%env1d%ti (matflt_type) (7.9.5.1.12)
ui (2938)	turbulence%env1d%ui (matflt_type) (7.9.5.1.12)
fe (2938)	turbulence%env1d%fe (vecflt_type) (7.9.5.1.14)
qe (2938)	turbulence%env1d%qe (vecflt_type) (7.9.5.1.14)
qi (2938)	turbulence%env1d%qi (matflt_type) (7.9.5.1.12)
me (2938)	turbulence%env1d%me (vecflt_type) (7.9.5.1.14)
mi (2938)	turbulence%env1d%mi (matflt_type) (7.9.5.1.12)
codeparam (2577)	turbulence%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	turbulence%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	turbulence%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	turbulence%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	turbulence%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	turbulence%codeparam%output_flag (integer) (7.9.5.1.3)
time (2577)	turbulence%time (float) (7.9.5.1.2)

7.9.5.2.45 vessel

datainfo (2578)	vessel%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	vessel%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	vessel%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	vessel%datainfo%source (string) (7.9.5.1.4)
comment (2653)	vessel%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	vessel%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	vessel%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	vessel%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	vessel%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	vessel%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	vessel%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	vessel%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	vessel%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	vessel%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	vessel%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	vessel%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	vessel%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	vessel%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	vessel%datainfo%putinfo%rights (string) (7.9.5.1.4)
position (2578)	vessel%position (rz1D) (7.9.5.1.342)
r (2857)	vessel%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	vessel%position%z (vecflt_type) (7.9.5.1.14)

7.9.5.2.46 wall

datainfo (2579)	wall%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	wall%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	wall%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	wall%datainfo%source (string) (7.9.5.1.4)
comment (2653)	wall%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	wall%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	wall%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	wall%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	wall%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	wall%datainfo%whatref%user (string) (7.9.5.1.4)

machine (2969)	wall%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	wall%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	wall%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	wall%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	wall%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	wall%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	wall%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	wall%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	wall%datainfo%putinfo%rights (string) (7.9.5.1.4)
wall2d_mhd (2579)	wall%wall2d_mhd (wall2d_mhd) (7.9.5.1.435)
wall_id (2950)	wall%wall2d_mhd%wall_id (identifier) (7.9.5.1.231)
id (2746)	wall%wall2d_mhd%wall_id%id (string) (7.9.5.1.4)
flag (2746)	wall%wall2d_mhd%wall_id%flag (integer) (7.9.5.1.3)
description (2746)	wall%wall2d_mhd%wall_id%description (string) (7.9.5.1.4)
res_wall (2950)	wall%wall2d_mhd%res_wall(:) (mhd_res_wall2d) (7.9.5.1.260)
walltype (2775)	wall%wall2d_mhd%res_wall(:)%walltype (identifier) (7.9.5.1.231)
id (2746)	wall%wall2d_mhd%res_wall(:)%walltype%id (string) (7.9.5.1.4)
flag (2746)	wall%wall2d_mhd%res_wall(:)%walltype%flag (integer) (7.9.5.1.3)
description (2746)	wall%wall2d_mhd%res_wall(:)%walltype%description (string) (7.9.5.1.4)
delta (2775)	wall%wall2d_mhd%res_wall(:)%delta (float) (7.9.5.1.2)
eta (2775)	wall%wall2d_mhd%res_wall(:)%eta (float) (7.9.5.1.2)
npoloidal (2775)	wall%wall2d_mhd%res_wall(:)%npoloidal (integer) (7.9.5.1.3)
position (2775)	wall%wall2d_mhd%res_wall(:)%position (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d_mhd%res_wall(:)%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d_mhd%res_wall(:)%position%z (vecflt_type) (7.9.5.1.14)
holes (2775)	wall%wall2d_mhd%res_wall(:)%holes (holes) (7.9.5.1.230)
n_holes (2745)	wall%wall2d_mhd%res_wall(:)%holes%n_holes (integer) (7.9.5.1.3)
coordinates (2745)	wall%wall2d_mhd%res_wall(:)%holes%coordinates (coordinates) (7.9.5.1.108)
theta (2623)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%theta (vecflt_type) (7.9.5.1.14)
phi (2623)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%phi (vecflt_type) (7.9.5.1.14)
width (2745)	wall%wall2d_mhd%res_wall(:)%holes%width (width) (7.9.5.1.455)
dtheta (2970)	wall%wall2d_mhd%res_wall(:)%holes%width%dtheta (vecflt_type) (7.9.5.1.14)
phi (2970)	wall%wall2d_mhd%res_wall(:)%holes%width%phi (vecflt_type) (7.9.5.1.14)
eta (2745)	wall%wall2d_mhd%res_wall(:)%holes%eta (vecflt_type) (7.9.5.1.14)
ideal_wall (2950)	wall%wall2d_mhd%ideal_wall (mhd_ideal_wall2d) (7.9.5.1.258)
walltype (2773)	wall%wall2d_mhd%ideal_wall%walltype (identifier) (7.9.5.1.231)
id (2746)	wall%wall2d_mhd%ideal_wall%walltype%id (string) (7.9.5.1.4)
flag (2746)	wall%wall2d_mhd%ideal_wall%walltype%flag (integer) (7.9.5.1.3)
description (2746)	wall%wall2d_mhd%ideal_wall%walltype%description (string) (7.9.5.1.4)
position (2773)	wall%wall2d_mhd%ideal_wall%position (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d_mhd%ideal_wall%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d_mhd%ideal_wall%position%z (vecflt_type) (7.9.5.1.14)
wall0d (2579)	wall%wall0d (wall_wall0d) (7.9.5.1.443)
pumping_speed (2958)	wall%wall0d%pumping_speed (vecflt_type) (7.9.5.1.14)
gas_puff (2958)	wall%wall0d%gas_puff (vecflt_type) (7.9.5.1.14)
wall_inventory (2958)	wall%wall0d%wall_inventory (vecflt_type) (7.9.5.1.14)
recycling_coefficient (2958)	wall%wall0d%recycling_coefficient (vecflt_type) (7.9.5.1.14)
wall_temperature (2958)	wall%wall0d%wall_temperature (float) (7.9.5.1.2)
power_from_plasma (2958)	wall%wall0d%power_from_plasma (float) (7.9.5.1.2)
power_to_cooling (2958)	wall%wall0d%power_to_cooling (float) (7.9.5.1.2)
plasma (2958)	wall%wall0d%plasma (wall_wall0d_plasma) (7.9.5.1.444)
species_index (2959)	wall%wall0d%plasma%species_index (matint_type) (7.9.5.1.13)
flux (2959)	wall%wall0d%plasma%flux (vecflt_type) (7.9.5.1.14)
energy (2959)	wall%wall0d%plasma%energy (vecflt_type) (7.9.5.1.14)
wall2d (2579)	wall%wall2d(:) (wall2d) (7.9.5.1.434)
wall_id (2949)	wall%wall2d(:)%wall_id (identifier) (7.9.5.1.231)
id (2746)	wall%wall2d(:)%wall_id%id (string) (7.9.5.1.4)
flag (2746)	wall%wall2d(:)%wall_id%flag (integer) (7.9.5.1.3)
description (2746)	wall%wall2d(:)%wall_id%description (string) (7.9.5.1.4)
limiter (2949)	wall%wall2d(:)%limiter (wall_limiter) (7.9.5.1.439)
limiter_unit (2954)	wall%wall2d(:)%limiter%limiter_unit(:) (limiter_unit) (7.9.5.1.248)

name (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%name (string) (7.9.5.1.4)
closed (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%closed (string) (7.9.5.1.4)
position (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%position (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d(:)%limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d(:)%limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.5.1.14)
eta (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%eta (float) (7.9.5.1.2)
delta (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%delta (float) (7.9.5.1.2)
permeability (2763)	wall%wall2d(:)%limiter%limiter_unit(:)%permeability (float) (7.9.5.1.2)
vessel (2949)	wall%wall2d(:)%vessel (wall_vessel) (7.9.5.1.440)
vessel_unit (2955)	wall%wall2d(:)%vessel%vessel_unit(:) (wall_vessel_unit) (7.9.5.1.442)
annular (2957)	wall%wall2d(:)%vessel%vessel_unit(:)%annular (wall_vessel_annular) (7.9.5.1.441)
name (2956)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%name (string) (7.9.5.1.4)
inside (2956)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%z (vecflt_type) (7.9.5.1.14)
outside (2956)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%z (vecflt_type) (7.9.5.1.14)
eta (2956)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%eta (float) (7.9.5.1.2)
permeability (2956)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%permeability (float) (7.9.5.1.2)
blocks (2957)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks (wall_blocks) (7.9.5.1.437)
blocks_unit (2952)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:) (wall_blocks_unit) (7.9.5.1.438)
name (2953)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%name (string) (7.9.5.1.4)
position (2953)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position (rz1D) (7.9.5.1.342)
r (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%r (vecflt_type) (7.9.5.1.14)
z (2857)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%z (vecflt_type) (7.9.5.1.14)
eta (2953)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%eta (float) (7.9.5.1.2)
permeability (2953)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%permeability (float) (7.9.5.1.2)
wall3d (2579)	wall%wall3d(:) (wall3d) (7.9.5.1.436)
wall_id (2951)	wall%wall3d(:)%wall_id (identifier) (7.9.5.1.231)
id (2746)	wall%wall3d(:)%wall_id%id (string) (7.9.5.1.4)
flag (2746)	wall%wall3d(:)%wall_id%flag (integer) (7.9.5.1.3)
description (2746)	wall%wall3d(:)%wall_id%description (string) (7.9.5.1.4)
grid (2951)	wall%wall3d(:)%grid (complexgrid) (7.9.5.1.88)
uid (2603)	wall%wall3d(:)%grid%uid (integer) (7.9.5.1.3)
id (2603)	wall%wall3d(:)%grid%id (string) (7.9.5.1.4)
spaces (2603)	wall%wall3d(:)%grid%spaces(:) (complexgrid_space) (7.9.5.1.97)
geotype (2612)	wall%wall3d(:)%grid%spaces(:)%geotype (vecint_type) (7.9.5.1.15)
geotypeid (2612)	wall%wall3d(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.5.1.16)
coordtype (2612)	wall%wall3d(:)%grid%spaces(:)%coordtype (matint_type) (7.9.5.1.13)
objects (2612)	wall%wall3d(:)%grid%spaces(:)%objects(:) (objects) (7.9.5.1.277)
boundary (2792)	wall%wall3d(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.5.1.13)
neighbour (2792)	wall%wall3d(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.5.1.7)
geo (2792)	wall%wall3d(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.5.1.8)
measure (2792)	wall%wall3d(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.5.1.12)
xpoints (2612)	wall%wall3d(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.5.1.15)
subgrids (2603)	wall%wall3d(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.5.1.98)
id (2613)	wall%wall3d(:)%grid%subgrids(:)%id (string) (7.9.5.1.4)
list (2613)	wall%wall3d(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.5.1.92)
cls (2607)	wall%wall3d(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.5.1.15)
indset (2607)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.5.1.90)
range (2605)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.5.1.15)
ind (2605)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.5.1.15)
ind (2607)	wall%wall3d(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.5.1.13)
metric (2603)	wall%wall3d(:)%grid%metric (complexgrid_metric) (7.9.5.1.91)
measure (2606)	wall%wall3d(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.5.1.12)

matrix (2608)	wall%wall3d(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
g11 (2606)	wall%wall3d(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g11(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g11(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.5.1.6)
g12 (2606)	wall%wall3d(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g12(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g12(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.5.1.6)
g13 (2606)	wall%wall3d(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g13(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g13(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.5.1.6)
g22 (2606)	wall%wall3d(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g22(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g22(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.5.1.6)
g23 (2606)	wall%wall3d(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g23(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g23(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.5.1.6)
g33 (2606)	wall%wall3d(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%g33(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%g33(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.5.1.6)
jacobian (2606)	wall%wall3d(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.5.1.6)
geo (2603)	wall%wall3d(:)%grid%geo(:) (complexgrid_geo_global) (7.9.5.1.89)
geotype (2604)	wall%wall3d(:)%grid%geo(:)%geotype (integer) (7.9.5.1.3)
geotypeid (2604)	wall%wall3d(:)%grid%geo(:)%geotypeid (string) (7.9.5.1.4)
coordtype (2604)	wall%wall3d(:)%grid%geo(:)%coordtype (vecint_type) (7.9.5.1.15)
geo_matrix (2604)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.5.1.6)
measure (2604)	wall%wall3d(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
bases (2603)	wall%wall3d(:)%grid%bases(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	wall%wall3d(:)%grid%bases(:)%griduid (integer) (7.9.5.1.3)

label (2614)	wall%wall3d(:)%grid%bases(:)%label (string) (7.9.5.1.4)
comp (2614)	wall%wall3d(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%wall3d(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%wall3d(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%wall3d(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%wall3d(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%wall3d(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	wall%wall3d(:)%grid%bases(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	wall%wall3d(:)%grid%bases(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	wall%wall3d(:)%grid%bases(:)%basis (integer) (7.9.5.1.3)
plasma (2579)	wall%plasma (plasma) (7.9.5.1.298)
flux (2813)	wall%plasma%flux(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%plasma%flux(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%plasma%flux(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%plasma%flux(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%plasma%flux(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%plasma%flux(:)%matrix (array3dflt_type) (7.9.5.1.6)
b (2813)	wall%plasma%b (complexgrid_vector_simplestruct) (7.9.5.1.100)
label (2615)	wall%plasma%b%label (string) (7.9.5.1.4)
comp (2615)	wall%plasma%b%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%plasma%b%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%plasma%b%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%plasma%b%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%plasma%b%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%plasma%b%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2615)	wall%plasma%b%align (vecint_type) (7.9.5.1.15)
alignid (2615)	wall%plasma%b%alignid (vecstring_type) (7.9.5.1.16)
energy (2813)	wall%plasma%energy(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	wall%plasma%energy(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	wall%plasma%energy(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	wall%plasma%energy(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	wall%plasma%energy(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	wall%plasma%energy(:)%matrix (array3dflt_type) (7.9.5.1.6)
species (2813)	wall%plasma%species(:) (species_desc) (7.9.5.1.394)
label (2909)	wall%plasma%species(:)%label (string) (7.9.5.1.4)
amn (2909)	wall%plasma%species(:)%amn (float) (7.9.5.1.2)
zn (2909)	wall%plasma%species(:)%zn (float) (7.9.5.1.2)
zmin (2909)	wall%plasma%species(:)%zmin (float) (7.9.5.1.2)
zmax (2909)	wall%plasma%species(:)%zmax (float) (7.9.5.1.2)
surface (2579)	wall%surface (surface) (7.9.5.1.403)
ref_wall_typ (2918)	wall%surface%ref_wall_typ(:) (ref_wall_typ) (7.9.5.1.331)
label (2846)	wall%surface%ref_wall_typ(:)%label (string) (7.9.5.1.4)
thickness (2846)	wall%surface%ref_wall_typ(:)%thickness (vecflt_type) (7.9.5.1.14)
stochiometry (2846)	wall%surface%ref_wall_typ(:)%stochiometry (matflt_type) (7.9.5.1.12)
dx (2846)	wall%surface%ref_wall_typ(:)%dx (matflt_type) (7.9.5.1.12)
wall_type (2918)	wall%surface%wall_type (complexgrid_scalar_int) (7.9.5.1.95)
griduid (2610)	wall%surface%wall_type%griduid (integer) (7.9.5.1.3)
subgrid (2610)	wall%surface%wall_type%subgrid (integer) (7.9.5.1.3)
scalar (2610)	wall%surface%wall_type%scalar (vecint_type) (7.9.5.1.15)
vector (2610)	wall%surface%wall_type%vector (matint_type) (7.9.5.1.13)
matrix (2610)	wall%surface%wall_type%matrix (array3dint_type) (7.9.5.1.7)
layers (2918)	wall%surface%layers (layers) (7.9.5.1.247)
density (2762)	wall%surface%layers%density (matflt_type) (7.9.5.1.12)
thickness (2762)	wall%surface%layers%thickness (matflt_type) (7.9.5.1.12)
roughness (2762)	wall%surface%layers%roughness (matflt_type) (7.9.5.1.12)
t (2762)	wall%surface%layers%t (array3dflt_type) (7.9.5.1.6)
element_frac (2762)	wall%surface%layers%element_frac (array3dflt_type) (7.9.5.1.6)
chem_comp (2762)	wall%surface%layers%chem_comp (array3dflt_type) (7.9.5.1.6)
h_inventory (2918)	wall%surface%h_inventory (h_inventory) (7.9.5.1.228)
surf_trap_de (2743)	wall%surface%h_inventory%surf_trap_de (array5dflt_type) (7.9.5.1.9)
bulk_trap_de (2743)	wall%surface%h_inventory%bulk_trap_de (array5dflt_type) (7.9.5.1.9)

bulk_D (2743)	wall%surface%h_inventory%bulk_D (array5dflt_type) (7.9.5.1.9)
surface_D (2743)	wall%surface%h_inventory%surface_D (array5dflt_type) (7.9.5.1.9)
bulk_C_s (2743)	wall%surface%h_inventory%bulk_C_s (array5dflt_type) (7.9.5.1.9)
surface_C_s (2743)	wall%surface%h_inventory%surface_C_s (array5dflt_type) (7.9.5.1.9)
bulk_C_t (2743)	wall%surface%h_inventory%bulk_C_t (array5dflt_type) (7.9.5.1.9)
surface_C_t (2743)	wall%surface%h_inventory%surface_C_t (array5dflt_type) (7.9.5.1.9)
surf_recrate (2743)	wall%surface%h_inventory%surf_recrate (array5dflt_type) (7.9.5.1.9)
elements (2918)	wall%surface%elements(:) (element_desc) (7.9.5.1.188)
label (2703)	wall%surface%elements(:)%label (string) (7.9.5.1.4)
zn (2703)	wall%surface%elements(:)%zn (integer) (7.9.5.1.3)
amn (2703)	wall%surface%elements(:)%amn (float) (7.9.5.1.2)
density (2703)	wall%surface%elements(:)%density (float) (7.9.5.1.2)
compounds (2918)	wall%surface%compounds(:) (compound_desc) (7.9.5.1.106)
label (2621)	wall%surface%compounds(:)%label (string) (7.9.5.1.4)
stochiometry (2621)	wall%surface%compounds(:)%stochiometry (vecflt_type) (7.9.5.1.14)
density (2621)	wall%surface%compounds(:)%density (float) (7.9.5.1.2)
time (2579)	wall%time (float) (7.9.5.1.2)

7.9.5.2.47 waves

datainfo (2580)	waves%datainfo (datainfo) (7.9.5.1.138)
dataprovider (2653)	waves%datainfo%dataprovider (string) (7.9.5.1.4)
putdate (2653)	waves%datainfo%putdate (string) (7.9.5.1.4)
source (2653)	waves%datainfo%source (string) (7.9.5.1.4)
comment (2653)	waves%datainfo%comment (string) (7.9.5.1.4)
cocos (2653)	waves%datainfo%cocos (integer) (7.9.5.1.3)
id (2653)	waves%datainfo%id (integer) (7.9.5.1.3)
isref (2653)	waves%datainfo%isref (integer) (7.9.5.1.3)
whatref (2653)	waves%datainfo%whatref (whatref) (7.9.5.1.454)
user (2969)	waves%datainfo%whatref%user (string) (7.9.5.1.4)
machine (2969)	waves%datainfo%whatref%machine (string) (7.9.5.1.4)
shot (2969)	waves%datainfo%whatref%shot (integer) (7.9.5.1.3)
run (2969)	waves%datainfo%whatref%run (integer) (7.9.5.1.3)
occurrence (2969)	waves%datainfo%whatref%occurrence (integer) (7.9.5.1.3)
putinfo (2653)	waves%datainfo%putinfo (putinfo) (7.9.5.1.307)
putmethod (2822)	waves%datainfo%putinfo%putmethod (string) (7.9.5.1.4)
putaccess (2822)	waves%datainfo%putinfo%putaccess (string) (7.9.5.1.4)
putlocation (2822)	waves%datainfo%putinfo%putlocation (string) (7.9.5.1.4)
rights (2822)	waves%datainfo%putinfo%rights (string) (7.9.5.1.4)
coherentwave (2580)	waves%coherentwave(:) (coherentwave) (7.9.5.1.85)
wave_id (2600)	waves%coherentwave(:)%wave_id (enum_instance) (7.9.5.1.190)
type (2705)	waves%coherentwave(:)%wave_id%type (identifier) (7.9.5.1.231)
id (2746)	waves%coherentwave(:)%wave_id%type%id (string) (7.9.5.1.4)
flag (2746)	waves%coherentwave(:)%wave_id%type%flag (integer) (7.9.5.1.3)
description (2746)	waves%coherentwave(:)%wave_id%type%description (string) (7.9.5.1.4)
name (2705)	waves%coherentwave(:)%wave_id%name (string) (7.9.5.1.4)
index (2705)	waves%coherentwave(:)%wave_id%index (integer) (7.9.5.1.3)
composition (2600)	waves%coherentwave(:)%composition (composition) (7.9.5.1.101)
amn (2616)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.5.1.14)
zn (2616)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.5.1.14)
zion (2616)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.5.1.14)
imp_flag (2616)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.5.1.15)
label (2616)	waves%coherentwave(:)%composition%label (vecstring_type) (7.9.5.1.16)
compositions (2600)	waves%coherentwave(:)%compositions (compositions_type) (7.9.5.1.105)
nuclei (2620)	waves%coherentwave(:)%compositions%nuclei(:) (nuclei) (7.9.5.1.276)
zn (2791)	waves%coherentwave(:)%compositions%nuclei(:)%zn (float) (7.9.5.1.2)
amn (2791)	waves%coherentwave(:)%compositions%nuclei(:)%amn (float) (7.9.5.1.2)
label (2791)	waves%coherentwave(:)%compositions%nuclei(:)%label (string) (7.9.5.1.4)
ions (2620)	waves%coherentwave(:)%compositions%ions(:) (ions) (7.9.5.1.236)
nucindex (2751)	waves%coherentwave(:)%compositions%ions(:)%nucindex (integer) (7.9.5.1.3)
zion (2751)	waves%coherentwave(:)%compositions%ions(:)%zion (float) (7.9.5.1.2)

imp_flag (2751)	waves%coherentwave(:)%compositions%ions(:)%imp_flag (integer) (7.9.5.1.3)
label (2751)	waves%coherentwave(:)%compositions%ions(:)%label (string) (7.9.5.1.4)
impurities (2620)	waves%coherentwave(:)%compositions%impurities(:) (impurities) (7.9.5.1.233)
nucindex (2748)	waves%coherentwave(:)%compositions%impurities(:)%nucindex (integer) (7.9.5.1.3)
i_ion (2748)	waves%coherentwave(:)%compositions%impurities(:)%i_ion (integer) (7.9.5.1.3)
nzimp (2748)	waves%coherentwave(:)%compositions%impurities(:)%nzimp (integer) (7.9.5.1.3)
zmin (2748)	waves%coherentwave(:)%compositions%impurities(:)%zmin (vecflt_type) (7.9.5.1.14)
zmax (2748)	waves%coherentwave(:)%compositions%impurities(:)%zmax (vecflt_type) (7.9.5.1.14)
label (2748)	waves%coherentwave(:)%compositions%impurities(:)%label (vecstring_type) (7.9.5.1.16)
neutralscomp (2620)	waves%coherentwave(:)%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.5.1.104)
neutcomp (2619)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.5.1.103)
nucindex (2618)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.5.1.3)
multiplicity (2618)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.5.1.3)
type (2619)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:) (identifier) (7.9.5.1.231)
id (2746)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%id (string) (7.9.5.1.4)
flag (2746)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.5.1.3)
description (2746)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%description (string) (7.9.5.1.4)
label (2619)	waves%coherentwave(:)%compositions%neutralscomp(:)%label (string) (7.9.5.1.4)
edgespecies (2620)	waves%coherentwave(:)%compositions%edgespecies(:) (edgespecies) (7.9.5.1.187)
nucindex (2702)	waves%coherentwave(:)%compositions%edgespecies(:)%nucindex (integer) (7.9.5.1.3)
zmin (2702)	waves%coherentwave(:)%compositions%edgespecies(:)%zmin (float) (7.9.5.1.2)
zmax (2702)	waves%coherentwave(:)%compositions%edgespecies(:)%zmax (float) (7.9.5.1.2)
label (2702)	waves%coherentwave(:)%compositions%edgespecies(:)%label (string) (7.9.5.1.4)
signature (2620)	waves%coherentwave(:)%compositions%signature (identifier) (7.9.5.1.231)
id (2746)	waves%coherentwave(:)%compositions%signature%id (string) (7.9.5.1.4)
flag (2746)	waves%coherentwave(:)%compositions%signature%flag (integer) (7.9.5.1.3)
description (2746)	waves%coherentwave(:)%compositions%signature%description (string) (7.9.5.1.4)
global_param (2600)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.5.1.446)
frequency (2961)	waves%coherentwave(:)%global_param%frequency (float) (7.9.5.1.2)
name (2961)	waves%coherentwave(:)%global_param%name (string) (7.9.5.1.4)
type (2961)	waves%coherentwave(:)%global_param%type (string) (7.9.5.1.4)
ntor (2961)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.5.1.15)
f_assumption (2961)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.5.1.15)
power_tot (2961)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.5.1.2)
p_frac_ntor (2961)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.5.1.14)
pow_i (2961)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.5.1.14)
pow_e (2961)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.5.1.2)
pow_ntor_i (2961)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.5.1.12)
pow_ntor_e (2961)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.5.1.14)
cur_tor (2961)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.5.1.2)
cur_tor_ntor (2961)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.5.1.14)
code_type (2961)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.5.1.3)
toroid_field (2961)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.5.1.73)
r0 (2588)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.5.1.2)
b0 (2588)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.5.1.2)
grid_1d (2600)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.5.1.447)
rho_tor_norm (2962)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.5.1.14)
rho_tor (2962)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.5.1.14)
psi (2962)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.5.1.14)
grid_2d (2600)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.5.1.448)
grid_type (2963)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.5.1.3)
rho_tor_norm (2963)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.5.1.12)
rho_tor (2963)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.5.1.12)
psi (2963)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.5.1.12)
theta (2963)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.5.1.12)
r (2963)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.5.1.12)
z (2963)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.5.1.12)
theta_info (2963)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.5.1.411)

angl_type (2926)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.5.1.3)
th2th_pol (2926)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.5.1.12)
profiles_1d (2600)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.5.1.449)
powd_tot (2964)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.5.1.14)
powd_e (2964)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.5.1.14)
powd_i (2964)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.5.1.12)
powd_ntor (2964)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.5.1.12)
powd_ntor_e (2964)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.5.1.12)
powd_ntor_i (2964)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.5.1.6)
curd_tor (2964)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.5.1.14)
curd_torntor (2964)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.5.1.12)
pow_tot (2964)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.5.1.14)
pow_e (2964)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.5.1.14)
pow_i (2964)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.5.1.12)
pow_ntor (2964)	waves%coherentwave(:)%profiles_1d%pow_ntor (array3dflt_type) (7.9.5.1.6)
pow_ntor_e (2964)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.5.1.12)
pow_ntor_i (2964)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.5.1.6)
curd_par (2964)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.5.1.14)
curd_parntor (2964)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.5.1.12)
cur_tor (2964)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.5.1.14)
cur_tor_ntor (2964)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.5.1.12)
profiles_2d (2600)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.5.1.450)
powd_tot (2965)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.5.1.12)
powd_e (2965)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.5.1.12)
powd_i (2965)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.5.1.6)
powd_ntor (2965)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.5.1.6)
powd_ntor_e (2965)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.5.1.6)
powd_ntor_i (2965)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.5.1.8)
powd_iharm (2965)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.5.1.9)
beamtracing (2600)	waves%coherentwave(:)%beamtracing(:) (beamtracing) (7.9.5.1.75)
npoints (2590)	waves%coherentwave(:)%beamtracing(:)%npoints (integer) (7.9.5.1.3)
power (2590)	waves%coherentwave(:)%beamtracing(:)%power (float) (7.9.5.1.2)
dnpar (2590)	waves%coherentwave(:)%beamtracing(:)%dnpar (vecflt_type) (7.9.5.1.14)
length (2590)	waves%coherentwave(:)%beamtracing(:)%length (vecflt_type) (7.9.5.1.14)
position (2590)	waves%coherentwave(:)%beamtracing(:)%position (waves_rtposition) (7.9.5.1.451)
r (2966)	waves%coherentwave(:)%beamtracing(:)%position%r (vecflt_type) (7.9.5.1.14)
z (2966)	waves%coherentwave(:)%beamtracing(:)%position%z (vecflt_type) (7.9.5.1.14)
phi (2966)	waves%coherentwave(:)%beamtracing(:)%position%phi (vecflt_type) (7.9.5.1.14)
psi (2966)	waves%coherentwave(:)%beamtracing(:)%position%psi (vecflt_type) (7.9.5.1.14)
theta (2966)	waves%coherentwave(:)%beamtracing(:)%position%theta (vecflt_type) (7.9.5.1.14)
wavevector (2590)	waves%coherentwave(:)%beamtracing(:)%wavevector (waves_rtwavevector) (7.9.5.1.452)
kr (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%kr (vecflt_type) (7.9.5.1.14)
kz (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%kz (vecflt_type) (7.9.5.1.14)
kphi (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%kphi (vecflt_type) (7.9.5.1.14)
npar (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%npar (vecflt_type) (7.9.5.1.14)
nperp (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%nperp (vecflt_type) (7.9.5.1.14)
ntor (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%ntor (vecflt_type) (7.9.5.1.14)
var_ntor (2967)	waves%coherentwave(:)%beamtracing(:)%wavevector%var_ntor (integer) (7.9.5.1.3)
polarization (2590)	waves%coherentwave(:)%beamtracing(:)%polarization (polarization) (7.9.5.1.302)
epol_p_re (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_re (vecflt_type) (7.9.5.1.14)
epol_p_im (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_im (vecflt_type) (7.9.5.1.14)
epol_m_re (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_re (vecflt_type) (7.9.5.1.14)
epol_m_im (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_im (vecflt_type) (7.9.5.1.14)
epol_par_re (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_re (vecflt_type) (7.9.5.1.14)
epol_par_im (2817)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_im (vecflt_type) (7.9.5.1.14)
powerflow (2590)	waves%coherentwave(:)%beamtracing(:)%powerflow (powerflow) (7.9.5.1.303)
phi_perp (2818)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_perp (vecflt_type) (7.9.5.1.14)
phi_par (2818)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_par (vecflt_type) (7.9.5.1.14)
power_e (2818)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_e (vecflt_type) (7.9.5.1.14)
power_i (2818)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_i (matflt_type) (7.9.5.1.12)
fullwave (2600)	waves%coherentwave(:)%fullwave (fullwave) (7.9.5.1.207)

grid (2722)	waves%coherentwave(:)%fullwave%grid (complexgrid) (7.9.5.1.88)
uid (2603)	waves%coherentwave(:)%fullwave%grid%uid (integer) (7.9.5.1.3)
id (2603)	waves%coherentwave(:)%fullwave%grid%id (string) (7.9.5.1.4)
spaces (2603)	waves%coherentwave(:)%fullwave%grid%spaces(:) (complexgrid_space) (7.9.5.1.97)
geotype (2612)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotype (vecint_type) (7.9.5.1.15)
geotypeid (2612)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotypeid (vecstring_type) (7.9.5.1.16)
coordtype (2612)	waves%coherentwave(:)%fullwave%grid%spaces(:)%coordtype (matint_type) (7.9.5.1.13)
objects (2612)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:) (objects) (7.9.5.1.277)
boundary (2792)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.5.1.13)
neighbour (2792)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.5.1.7)
geo (2792)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.5.1.8)
measure (2792)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.5.1.12)
xpoints (2612)	waves%coherentwave(:)%fullwave%grid%spaces(:)%xpoints (vecint_type) (7.9.5.1.15)
subgrids (2603)	waves%coherentwave(:)%fullwave%grid%subgrids(:) (complexgrid_subgrid) (7.9.5.1.98)
id (2613)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%id (string) (7.9.5.1.4)
list (2613)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.5.1.92)
cls (2607)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.5.1.15)
indset (2607)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.5.1.90)
range (2605)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.5.1.15)
ind (2605)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.5.1.15)
ind (2607)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.5.1.13)
metric (2603)	waves%coherentwave(:)%fullwave%grid%metric (complexgrid_metric) (7.9.5.1.91)
measure (2606)	waves%coherentwave(:)%fullwave%grid%metric%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
g11 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g11(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.5.1.6)
g12 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g12(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.5.1.6)
g13 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g13(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.5.1.6)
g22 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g22(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.5.1.6)
g23 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g23(:) (complexgrid_scalar) (7.9.5.1.93)

griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.5.1.6)
g33 (2606)	waves%coherentwave(:)%fullwave%grid%metric%g33(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.5.1.6)
jacobian (2606)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.5.1.6)
geo (2603)	waves%coherentwave(:)%fullwave%grid%geo(:) (complexgrid_geo_global) (7.9.5.1.89)
geotype (2604)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotype (integer) (7.9.5.1.3)
geotypeid (2604)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotypeid (string) (7.9.5.1.4)
coordtype (2604)	waves%coherentwave(:)%fullwave%grid%geo(:)%coordtype (vecint_type) (7.9.5.1.15)
geo_matrix (2604)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.5.1.6)
measure (2604)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.5.1.6)
bases (2603)	waves%coherentwave(:)%fullwave%grid%bases(:) (complexgrid_vector) (7.9.5.1.99)
griduid (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%griduid (integer) (7.9.5.1.3)
label (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%label (string) (7.9.5.1.4)
comp (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.5.1.93)
griduid (2608)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%griduid (integer) (7.9.5.1.3)
subgrid (2608)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%subgrid (integer) (7.9.5.1.3)
scalar (2608)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.5.1.14)
vector (2608)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.5.1.12)
matrix (2608)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.5.1.6)
align (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%align (vecint_type) (7.9.5.1.15)
alignid (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%alignid (vecstring_type) (7.9.5.1.16)
basis (2614)	waves%coherentwave(:)%fullwave%grid%bases(:)%basis (integer) (7.9.5.1.3)
e_components (2722)	waves%coherentwave(:)%fullwave%e_components (e_components) (7.9.5.1.175)
e_plus (2690)	waves%coherentwave(:)%fullwave%e_components%e_plus (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%e_plus%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%e_plus%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar%im (vecflt_type) (7.9.5.1.14)

vector (2609)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix%im (array3dflt_type) (7.9.5.1.6)
e_minus (2690)	waves%coherentwave(:)%fullwave%e_components%e_minus (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%e_minus%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%e_minus%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix%im (array3dflt_type) (7.9.5.1.6)
e_para (2690)	waves%coherentwave(:)%fullwave%e_components%e_para (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%e_para%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%e_para%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%e_para%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%e_para%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%e_para%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix%im (array3dflt_type) (7.9.5.1.6)
e_norm (2690)	waves%coherentwave(:)%fullwave%e_components%e_norm (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%e_norm%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%e_norm%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector%im (matflt_type) (7.9.5.1.12)

matrix (2609)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix%im (array3dflt_type) (7.9.5.1.6)
e_binorm (2690)	waves%coherentwave(:)%fullwave%e_components%e_binorm (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%e_binorm%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%e_binorm%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix%im (array3dflt_type) (7.9.5.1.6)
b_norm (2690)	waves%coherentwave(:)%fullwave%e_components%b_norm (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%b_norm%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%b_norm%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix%im (array3dflt_type) (7.9.5.1.6)
b_binorm (2690)	waves%coherentwave(:)%fullwave%e_components%b_binorm (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%b_binorm%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%b_binorm%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix%im (array3dflt_type) (7.9.5.1.6)

b_para (2690)	waves%coherentwave(:)%fullwave%e_components%b_para (complexgrid_scalar_cplx) (7.9.5.1.94)
griduid (2609)	waves%coherentwave(:)%fullwave%e_components%b_para%griduid (integer) (7.9.5.1.3)
subgrid (2609)	waves%coherentwave(:)%fullwave%e_components%b_para%subgrid (integer) (7.9.5.1.3)
scalar (2609)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar (veccplx_type) (7.9.5.1.432)
re (2947)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar%re (vecflt_type) (7.9.5.1.14)
im (2947)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar%im (vecflt_type) (7.9.5.1.14)
vector (2609)	waves%coherentwave(:)%fullwave%e_components%b_para%vector (matcplx_type) (7.9.5.1.256)
re (2771)	waves%coherentwave(:)%fullwave%e_components%b_para%vector%re (matflt_type) (7.9.5.1.12)
im (2771)	waves%coherentwave(:)%fullwave%e_components%b_para%vector%im (matflt_type) (7.9.5.1.12)
matrix (2609)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix (array3dcplx_type) (7.9.5.1.72)
re (2587)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix%re (array3dflt_type) (7.9.5.1.6)
im (2587)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix%im (array3dflt_type) (7.9.5.1.6)
pol_decomp (2722)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.5.1.300)
mpol (2815)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.5.1.15)
e_plus (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.5.1.6)
e_plus_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.5.1.6)
e_minus (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.5.1.6)
e_minus_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.5.1.6)
e_norm (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.5.1.6)
e_norm_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.5.1.6)
e_binorm (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.5.1.6)
e_binorm_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.5.1.6)
e_para (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.5.1.6)
e_para_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.5.1.6)
b_norm (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.5.1.6)
b_norm_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.5.1.6)
b_binorm (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.5.1.6)
b_binorm_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array3dflt_type) (7.9.5.1.6)
b_para (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.5.1.6)
b_para_ph (2815)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.5.1.6)
local (2722)	waves%coherentwave(:)%fullwave%local (local) (7.9.5.1.252)
e_plus (2767)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.5.1.6)
e_plus_ph (2767)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.5.1.6)
e_minus (2767)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.5.1.6)
e_minus_ph (2767)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.5.1.6)
e_norm (2767)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.5.1.7)
enorm_ph (2767)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.5.1.6)
e_binorm (2767)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.5.1.6)
e_binorm_ph (2767)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.5.1.6)
e_para (2767)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.5.1.6)
e_para_ph (2767)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.5.1.6)
b_norm (2767)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.5.1.6)
b_norm_ph (2767)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.5.1.6)
b_binorm (2767)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.5.1.6)
b_binorm_ph (2767)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.5.1.6)
b_para (2767)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.5.1.6)
b_para_ph (2767)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.5.1.6)
codeparam (2600)	waves%coherentwave(:)%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	waves%coherentwave(:)%codeparam%codename (string) (7.9.5.1.4)
codeversion (2598)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.5.1.3)
codeparam (2580)	waves%codeparam (codeparam) (7.9.5.1.83)
codename (2598)	waves%codeparam%codename (string) (7.9.5.1.4)

codeversion (2598)	waves%codeparam%codeversion (string) (7.9.5.1.4)
parameters (2598)	waves%codeparam%parameters (string) (7.9.5.1.4)
output_diag (2598)	waves%codeparam%output_diag (string) (7.9.5.1.4)
output_flag (2598)	waves%codeparam%output_flag (integer) (7.9.5.1.3)
time (2580)	waves%time (float) (7.9.5.1.2)

cpoinstances [564]

7.9.6 4.10b.8

7.9.6.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.6.1.1 Primitive Types

Clear definitions required.

7.9.6.1.2 float

7.9.6.1.3 integer

7.9.6.1.4 string

7.9.6.1.5 Array Types

Clear definitions required.

7.9.6.1.6 array3dcplx_type

Example: Complex numbers (3D)

7.9.6.1.7 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.6.1.8 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.6.1.9 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.6.1.10 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.6.1.11 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.6.1.12 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

[564] https://www.efda-itm.eu/ITM/html/cpoinstances__4.10a.3.html

7.9.6.1.13 cplx_type

Example: Complex number (scalar)

7.9.6.1.14 matcplx_type

Example: Complex numbers (matrix)

7.9.6.1.15 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.6.1.16 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.6.1.17 veccplx_type

Example: Complex numbers (vector)

7.9.6.1.18 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.6.1.19 vecint_type

Example: [1,2,3]

7.9.6.1.20 vecstring_type

Example: ["aaa","bb","cccc"]

7.9.6.1.21 Structure Types

7.9.6.1.22 CPO Structures

7.9.6.1.23 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
version	string (7.9.6.1.4)	Version of the data.
source	string (7.9.6.1.4)	Source of the data.
zn	integer (7.9.6.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.6.1.2)	Mass of atom [amu]
process(:)	amns_processType (7.9.6.1.74)	Identifiers for processes; Vector(nprocs)
tables(:)	tables (7.9.6.1.439)	Rate tables for processes. Vector(nprocs)
tables_coord(:)	tables_coord (7.9.6.1.440)	Array of possible coordinate systems for tables. Vector(ncoordbases)
version_ind(:)	version_ind (7.9.6.1.498)	Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.24 antennas

Antenna systems for heating and current drive in the electron cyclotron (EC), ion cylcotron (IC) and lower hybrid (LH) frequencies. Time-dependent CPO.

member	type	description

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
antenna_ec(:)	antenna_ec (7.9.6.1.75)	Vector of Electron Cyclotron antennas. Time-dependent
antenna_ic(:)	antenna_ic (7.9.6.1.76)	Vector of Ion Cyclotron antennas. Time-dependent
antenna_lh(:)	antenna_lh (7.9.6.1.77)	Vector of Lower Hybrid antennas. Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.25 bb_shield

Breeding blanket and relevant shield. CPO. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
type	string (7.9.6.1.4)	Type of breeding blanket (HCLL, DCLL, HCPB, ...). String
limits	limits (7.9.6.1.272)	Limits
li6_enrich	float (7.9.6.1.2)	Lithium 6 enrichement (at%).
geom	geom (7.9.6.1.245)	Geometry between components
neut_results	neut_results (7.9.6.1.307)	Neutronic results
shield	shield (7.9.6.1.416)	Shield
bb	bb (7.9.6.1.81)	Breeding blanket
hcll	hcll (7.9.6.1.250)	Data specific to HCLL blanket concept
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.26 compositionc

Species description (ions, impurities, neutrals).

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.27 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coredelta_values (7.9.6.1.125)	Description of the delta term for the various origins. Array of structure (ndelta). Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.28 corefast

Flux surface averaged fluid measures and transport coefficients of fast particle populations. Here the concept of a fast particle population refer to the difference between the total population and the thermal population. This separation of populations may in practise be achieved differently depending on the physics model. A description of how the separation is achieved should therefore be provided in corefast/values/filter/. Time-dependent CPO.

member	type	description

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	corefast_values (7.9.6.1.126)	Description of the fast particle terms of various origins. Array of structure (nfast). Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.29 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into ”bundles”. Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.6.1.19)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
atomic_data	vecstring_type (7.9.6.1.20)	Reference for the atomic data used for each impurity. Array of strings (nimp)
impurity(:)	impurity_type (7.9.6.1.257)	Array(nimp). Time-dependent
diagnostic	coreimpurediag_type (7.9.6.1.138)	NO DOCS
diagnosticsum	coreimpurediag_sum (7.9.6.1.136)	NO DOCS
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.

7.9.6.1.30 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
neutcompo	composition_neutrals (7.9.6.1.117)	Description of neutrals species. OBSOLESCENT
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.

member	type	description
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
profiles(:)	neutral_complex_type (7.9.6.1.308)	Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent
ioncoeff(:)	coefficients_neutrals (7.9.6.1.99)	Recycling and sputtering coefficients for each ion in composition. Array(nion). Time-dependent
impcoeff(:)	impcoeff (7.9.6.1.255)	Recycling and sputtering coefficients for each impurity ion in desc_impur. Array(nimp). Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.31 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last radial grid point, which is quasi at the Last Closed Flux Surface); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.6.1.18)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.6.1.477)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
psi	psi (7.9.6.1.359)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.6.1.127)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.6.1.128)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.6.1.127)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.6.1.128)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.6.1.128)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.6.1.357)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.6.1.248)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.32 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	coresource_values (7.9.6.1.145)	Description of the source terms of various origins. Array of structure (nsource). Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.33 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coretransp_values (7.9.6.1.149)	Description of transport term coming from various origins. Array of structure (ntransp). Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.34 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	cxsetup (7.9.6.1.152)	diagnostic setup information
measure	cxmeasure (7.9.6.1.151)	Measured values
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.35 distribution

Datastructure for representing data associated with a distribution function one or many particle species. This structure is specifically designed to handle non-Maxwellian distribution function generated during heating and current drive, typically solved using a Fokker-Planck calculation perturbed by a heating scheme (e.g. IC, EC, LH, NBI, or alpha heating) and then relaxed by Coloumb collisions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
distri_vec(:)	distri_vec (7.9.6.1.185)	Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.36 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
source(:)	distsource_source (7.9.6.1.190)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; scalar

7.9.6.1.37 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	ecesetup (7.9.6.1.194)	diagnostic setup information

member	type	description
measure	ecemeasure (7.9.6.1.193)	Measured values
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.38 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
grid	complexgrid (7.9.6.1.103)	Grid description
species(:)	species_desc (7.9.6.1.428)	Description of ion species. Array of structures(nspecies)
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
fluid	edge_fluid (7.9.6.1.195)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.6.1.201)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.39 efcc

Error field correction coils. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
coil(:)	coil (7.9.6.1.101)	Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.40 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
eqconstraint	eqconstraint (7.9.6.1.208)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.6.1.209)	Geometry of the plasma boundary
flush	flush (7.9.6.1.222)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.6.1.247)	0d output parameters
profiles_1d	profiles_1d (7.9.6.1.358)	output profiles as a function of the poloidal flux
profiles_2d(:)	equilibrium_profiles_2d (7.9.6.1.214)	Output profiles in the poloidal plane. Time-dependent
coord_sys	coord_sys (7.9.6.1.122)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.41 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
fus_product(:)	fusiondiag_fus_product (7.9.6.1.241)	Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.42 halphadiag

H/D alpha line integrated diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	halpha_setup (7.9.6.1.249)	setup for the lines of sight of the line integrated measurement
intensity	exp1D (7.9.6.1.216)	Measured light intensity (a.u.). Time-dependent. Vector (nlos)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.43 heat_sources

Description of a set of heat sources or sinks. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
sources(:)	calorimetry_heat_source (7.9.6.1.94)	Heat sources. Array of structure (nheat_source)
sinks(:)	calorimetry_heat_source (7.9.6.1.94)	Heat sinks. Array of structure (nheat_sink)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.44 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
expression	string (7.9.6.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.6.1.414)	Geometric description of the lines of sight
measure	exp1D (7.9.6.1.216)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.45 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
desc_iron	desc_iron (7.9.6.1.157)	Description of the iron segments
magnetise	magnetise (7.9.6.1.279)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.46 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
potential	lang_measure (7.9.6.1.263)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.6.1.263)	Biasing potential [V]. All children are vectors(bias)
jsat	lang_measure (7.9.6.1.263)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.6.1.262)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.6.1.262)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.6.1.262)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.47 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
name	vecstring_type (7.9.6.1.20)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.6.1.20)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.6.1.18)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.6.1.19)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.6.1.383)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.6.1.431)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.6.1.267)	Beam characteristics
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.48 lithiumdiag

Lithium Beam Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	lithsetup (7.9.6.1.275)	diagnostic setup information
measure	lithmeasure (7.9.6.1.274)	Measured values
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.49 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
ip	exp0D (7.9.6.1.215)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.6.1.215)	Diamagnetic flux [Wb]; Time-dependent; Scalar
diamagener	exp0D (7.9.6.1.215)	Diamagnetic energy [J]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.6.1.223)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.6.1.93)	Poloidal field probes
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.50 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
n(:)	mhd_mode (7.9.6.1.283)	Vector of toroidal mode numbers; Structure Array (ntor); Time-dependent
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.51 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item

member	type	description
polarimetry	polarimetry (7.9.6.1.352)	This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.
spectral	spectral (7.9.6.1.430)	This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.52 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
nbi_unit(:)	nbi_unit (7.9.6.1.305)	Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.53 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.6.1.156)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
ni_neo	transcoefion (7.9.6.1.481)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.6.1.479)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo(:)	transcoefimp (7.9.6.1.480)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.6.1.481)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.6.1.479)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo(:)	transcoefimp (7.9.6.1.480)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.6.1.479)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.6.1.18)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.6.1.18)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.6.1.18)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.6.1.15)	Neoclassical poloidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
vtor	matflt_type (7.9.6.1.15)	Neoclassical toroidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
mach	matflt_type (7.9.6.1.15)	Mach number of each ion species. Time-dependent. Matrix(nrho,nion).
utheta_e	vecflt_type (7.9.6.1.18)	Electron poloidal flow [m/s]. Time-dependent. Vector(nrho).
utheta_i	matflt_type (7.9.6.1.15)	Ion poloidal flow [m/s]. Time-dependent. Matrix(nrho,nion).
fext	array3dflt_type (7.9.6.1.7)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.6.1.18)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.54 ntm

Description of a Neoclassical Tearing Mode and its evolution.Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item

member	type	description
mode(:)	ntm_mode (7.9.6.1.311)	List of the various NTM modes appearing during the simulation. If a mode appears several times, use several indices in this arra of structure with the same m,n values. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.55 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
com	com (7.9.6.1.102)	COM (Constants Of Motion) parameters identifying an orbit
trace	trace (7.9.6.1.478)	Position of particle in 5D space (3D in real and 2D in velocity).
global_param	orbit_global_param (7.9.6.1.322)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.56 pellets

Description of pellets. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
compositions	compositions_type (7.9.6.1.120)	Pellet composition
pellet(:)	pellet (7.9.6.1.330)	Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.57 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
pfcoils	pfcoils (7.9.6.1.340)	Active poloidal field coils
pfpassive	pfpassive (7.9.6.1.344)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.6.1.339)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.6.1.346)	PF power supplies
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.58 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
expression	string (7.9.6.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.6.1.414)	Geometric description of the lines of sight
measure	exp1D (7.9.6.1.216)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.59 power_conv

Power conversion system. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
cycle_type	string (7.9.6.1.4)	Type of cycle. String
circuits(:)	circuits (7.9.6.1.95)	Description of the circuit of the power conversion system. Array of structure. (ncircuits).
power_recirc	float (7.9.6.1.2)	Recirculated electric power (input to the power conversion actor). [W] Scalar
power_net	float (7.9.6.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.6.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar
efficiency	float (7.9.6.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.60 reflectomet

Reflectometry CPO, contains antennas and received signals; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
refl_receive(:)	refl_receive (7.9.6.1.367)	Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.
antennas(:)	reflectometry_antennas (7.9.6.1.368)	Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array. Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.61 rfadiag

Retarding field analyser Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	rfasetup (7.9.6.1.374)	diagnostic setup information
measure	rfameasure (7.9.6.1.373)	Measured values
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.62 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
crash_trig	integer (7.9.6.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.6.1.390)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.6.1.389)	NO DOCS
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.63 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
centre	scenario_centre (7.9.6.1.391)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.6.1.392)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.6.1.393)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.6.1.394)	characteristic confinement times
currents	scenario_currents (7.9.6.1.395)	data related to current sources and current diffusion
edge	scenario_edge (7.9.6.1.396)	edge value (@ LCMS)
energy	scenario_energy (7.9.6.1.397)	plasma energy content
eqgeometry	eqgeometry (7.9.6.1.209)	Geometry of the plasma boundary
global_param	scenario_global (7.9.6.1.398)	Global scalar values
heat_power	scenario_heat_power (7.9.6.1.399)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.6.1.401)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.6.1.402)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.6.1.403)	line averaged value
neutron	scenario_neutron (7.9.6.1.404)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.6.1.405)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.6.1.406)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.6.1.409)	References
reactor	scenario_reactor (7.9.6.1.407)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.6.1.410)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.6.1.411)	volume averaged value
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.64 solcurdiag

SOL current diagnostic. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
sol_current(:)	solcurdiag_sol_current (7.9.6.1.419)	Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent
clusters(:)	clusters (7.9.6.1.97)	Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.6.1.98)	Code parameters

7.9.6.1.65 temporary

Storage of undeclared data model components; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
non_timed	temporary_nt (7.9.6.1.441)	Time-independent quantities (parameters)
timed	temporary_t (7.9.6.1.457)	Time-dependent quantities
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.66 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.6.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.6.1.4)	Pulse/Entry description
firstputdate	string (7.9.6.1.4)	Date of the original data submission
lastupdate	string (7.9.6.1.4)	Date of the last data addition in the tree
source	string (7.9.6.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.6.1.4)	Any additional comment
dataversion	string (7.9.6.1.4)	Version of the data structure
workflow	string (7.9.6.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.6.1.206)	Definition of this database entry
parent_entry	entry_def (7.9.6.1.206)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.6.1.281)	Information related to machine description for this entry

7.9.6.1.67 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.6.1.472)	Description of the toroidal field coils
nturns	integer (7.9.6.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.6.1.3)	Number of packets of coils
current	exp0D (7.9.6.1.215)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.6.1.215)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.6.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
p_cryo	float (7.9.6.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
wp_nh_max	float (7.9.6.1.2)	Peak nuclear heating in winding pack [W*m^-3]. Time-dependent. Scalar
tfc_nh	float (7.9.6.1.2)	Nuclear heating on the toroidal field coils [W]; Time-dependent. Scalar
neut_flux_inb	float (7.9.6.1.2)	Neutron flux arriving at the inboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
neut_flux_outb	float (7.9.6.1.2)	Neutron flux arriving at the ouboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent. Scalar.

7.9.6.1.68 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
setup	tssetup (7.9.6.1.486)	diagnostic setup information
measure	tsmeasure (7.9.6.1.485)	Measured values
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.69 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
composition	turbcomposition (7.9.6.1.487)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.6.1.488)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.6.1.492)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.6.1.493)	Dependent variable radial profile.

member	type	description
var2d	turbvar2d (7.9.6.1.494)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.6.1.495)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.6.1.496)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.
var5d	turbvar5d (7.9.6.1.497)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.6.1.491)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.6.1.489)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.

7.9.6.1.70 wall

General Wall representation. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
wall0d	wall_wall0d (7.9.6.1.512)	Simple 0D description of plasma-wall interaction
wall2d_mhd	wall2d_mhd (7.9.6.1.500)	Simplified wall that encloses necessary information for RWM codes.
wall2d(:)	wall2d (7.9.6.1.499)	2D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, single contour limiter, disjoint gapped plasma facing components, ...). Time-dependent
wall3d(:)	wall3d (7.9.6.1.501)	3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent
wall_types(:)	wall_types (7.9.6.1.505)	List of reference wall types (e.g. bulk tungsten, tungsten-coated CFC, ...) ; Array of structures (number of reference wall types)
compounds(:)	compound_desc (7.9.6.1.121)	Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)
elements(:)	element_desc (7.9.6.1.205)	Chemical elements present in the wall units, including elements from the plasma (gas + impurities). Use by compounds. Array of structures (number of elements)
compositions	compositions_type (7.9.6.1.120)	NO DOCS
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar.

7.9.6.1.71 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.6.1.100)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.72 Utility Structures

7.9.6.1.73 amns_constituentType

Contains all of the information to characterize an AMNS constituent.

member	type	description
label	string (7.9.6.1.4)	String identifier for reaction constituent (e.g. ”D”, ”C”).
zn	integer (7.9.6.1.3)	Number of protons in the nucleus (nuclear charge); 0 if none (e-, gamma)
mn	integer (7.9.6.1.3)	Number of nucleons in the nucleus (nuclear mass); 0 if none (e-, gamma); Not set if not important (e.g. for an atomic process that is not isotope dependent)
multiplicity	float (7.9.6.1.2)	Multiplicity in the compound

Type of: reacprodType:constituents (3356)

7.9.6.1.74 amns_processType

Contains all of the information to characterize an AMNS process; Vector(nprocs).

member	type	description
proc_label	string (7.9.6.1.4)	Label for process (e.g. EI, RC; could also include error estimates)
reactant(:)	reacprodType (7.9.6.1.362)	Array of reactants; Vector(nreac).
product(:)	reacprodType (7.9.6.1.362)	Array of products; Vector(nprod).
sup_string	string (7.9.6.1.4)	String to be used if supplementary information is required.
sup_real	float (7.9.6.1.2)	Real to be used if supplementary information is required.
sup_int	integer (7.9.6.1.3)	Int to be used if supplementary information is required.
quality	identifier (7.9.6.1.254)	Characterize the data quality
err_proc_label	string (7.9.6.1.4)	"proc_label" of an associated error table of the same type as the primary quantity

Type of: amns:process (3018)

7.9.6.1.75 antenna_ec

Vector of Electron Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.6.1.4)	Antenna name
frequency	float (7.9.6.1.2)	Frequency [Hz]
power	exp0D (7.9.6.1.215)	Power [W]; Time-dependent
mode	integer (7.9.6.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.6.1.382)	Launching position in the global reference system; Time-dependent
launchangles	launchangles (7.9.6.1.264)	Launching angles of the beam
beam	rfbeam (7.9.6.1.375)	Beam characteristics at the launching position
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: antennas:antenna_ec (3019)

7.9.6.1.76 antenna_ic

Vector of Ion Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.6.1.4)	Antenna name; String
frequency	exp0D (7.9.6.1.215)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.6.1.215)	Power [W]; Time-dependent; Exp0d
setup	antennaic_setup (7.9.6.1.78)	Detailed description of IC antenna hardware and internal settings
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: antennas:antenna_ic (3019)

7.9.6.1.77 antenna_lh

Vector of Lower Hybrid antennas. Time-dependent

member	type	description
name	string (7.9.6.1.4)	Antenna name, String
frequency	float (7.9.6.1.2)	Frequency [Hz]
power	exp0D (7.9.6.1.215)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.6.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.6.1.382)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.6.1.79)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.6.1.350)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.6.1.375)	Beam characteristics
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: antennas:antenna_lh (3019)

7.9.6.1.78 antennaic_setup

Detailed description of an ICRH antenna; hardware and settings

member	type	description
straps(:)	straps (7.9.6.1.434)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)
current	current (7.9.6.1.150)	Description of the IC surface currents on the antenna straps and on passive components.

Type of: antenna_ic:setup (3070)

7.9.6.1.79 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.6.1.294)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (3071)

7.9.6.1.80 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.6.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.6.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: corefast:toroid_field (3023) I coresource:toroid_field (3027) I dist_geometry_0d:toroid_field (3161) I dist-source_global_param:toroid_field (3180) I global_param:toroid_field (3241) I mhd:toroid_field (3045) I waves_global_param:to (3510)

7.9.6.1.81 bb

Breeding blanket

member	type	description
nb_bb	float (7.9.6.1.2)	Total (in the reactor) number of breeding blanket module; Scalar
nb_bb_polcut	float (7.9.6.1.2)	Number of bb modules on a poloidal cut; Scalar
teta_bb	float (7.9.6.1.2)	Angle (0 for equatorial outboard, then in anti-clokwise direction) of bb module; [deg]
tbr	float (7.9.6.1.2)	Tritium breeding ratio of the blanket [-]; Scalar
neutro_resul	neutro_resul (7.9.6.1.309)	Neutronic results
inboard	bb_specs (7.9.6.1.84)	Inboard
outboard	bb_specs (7.9.6.1.84)	Outboard

Type of: bb_shield:bb (3020)

7.9.6.1.82 bb_dimension

dimension of the various modules

member	type	description
radial	vecflt_type (7.9.6.1.18)	Radial dimension [m]. Vector(nmodules)
toroidal	vecflt_type (7.9.6.1.18)	Toroidal dimension [m]. Vector(nmodules)
poloidal	vecflt_type (7.9.6.1.18)	Poloidal dimension [m]. Vector(nmodules)

Type of: bb_geometry:bot_cap_dim (3077) I bb_geometry:top_cap_dim (3077) I bb_specs:dimension (3078)

7.9.6.1.83 bb_geometry

Geometrical parameters of "the" reference outboard blanket module

member	type	description
dr_fw	float (7.9.6.1.2)	Radial thickness of the FW [m]; Scalar
dr_bz	float (7.9.6.1.2)	Radial thickness of the BZ (between the FW and the 1st back plate wall) [m]; Scalar
dr_bp	float (7.9.6.1.2)	Radial thickness of the BPs integrated to the module [m]; Scalar
dr_bp_plates	vecflt_type (7.9.6.1.18)	Radial thickness of every BP integrated to the module [m]; Vector(nplates)
dr_bp_he	vecflt_type (7.9.6.1.18)	Radial thickness of Helium layers [m]; Vector(nplates)
dr_man	float (7.9.6.1.2)	Radial thickness of the banana manifold common to all modules [m]; Scalar
dt_sw	float (7.9.6.1.2)	Toroidal thickness of side walls (or covers) [m]; Scalar
dt_bz	float (7.9.6.1.2)	Toroidal dimension of the BZ (between the two side walls [m]; Scalar
dp_bz	float (7.9.6.1.2)	Poloidal dimension of the Breeder zone [m]; Scalar
top_cap_dim	bb_dimension (7.9.6.1.82)	Top cap dimension of bb modules
bot_cap_dim	bb_dimension (7.9.6.1.82)	Bottom cap dimension of bb modules
a_fw_ch	float (7.9.6.1.2)	First wall channel radial dimension [m]; Scalar
b_fw_ch	float (7.9.6.1.2)	First wall channel toroidal dimension [m]; Scalar
td_tc_ch	float (7.9.6.1.2)	Top cap channel toroidal dimension [m]; Scalar
rd_tc_ch	float (7.9.6.1.2)	Top cap channel radial dimension [m]; Scalar
td_bc_ch	float (7.9.6.1.2)	Bottom cap channel toroidal dimension [m]; Scalar
rd_bc_ch	float (7.9.6.1.2)	Bottom cap channel radial dimension [m]; Scalar
n_fw_ch	float (7.9.6.1.2)	Number of first wall channels; Scalar
n_fw_circ	float (7.9.6.1.2)	Number of circulation in channel first wall channels; Scalar
a_sg_ch	float (7.9.6.1.2)	Stiffening grid channel dimension 1 [m]; Scalar
b_sg_ch	float (7.9.6.1.2)	Stiffening grid channel dimension 2 [m]; Scalar
n_sg_ch	float (7.9.6.1.2)	Number of channels per stiffening plate [m]; Scalar
sg_thick	float (7.9.6.1.2)	Stiffening grid thickness [m]; Scalar
sg_weld	float (7.9.6.1.2)	Stiffening grid required dimension for welding [m]; Scalar
sg_in_out	float (7.9.6.1.2)	Stiffening grid input/output geometry length [m]; Scalar
r_sg_cp	float (7.9.6.1.2)	Percentage of the cooling plate length [-]; Scalar
cp_tor_gap	float (7.9.6.1.2)	Gap between cooling plates and toroidal breeder [m]; Scalar
a_cp_ch	float (7.9.6.1.2)	Cooling plates channel dimension 1 [m]; Scalar
b_cp_ch	float (7.9.6.1.2)	Cooling plates channel dimension 2 [m]; Scalar
n_cp_ch	float (7.9.6.1.2)	Number of channels per cooling plates [m]; Scalar
cp_thick	float (7.9.6.1.2)	Cooling plates thickness [m]; Scalar
n_pol_bu	float (7.9.6.1.2)	Number of poloidal breeder units; Scalar
n_tor_bu	float (7.9.6.1.2)	Number of toroidal breeder units; Scalar
n_cp_bu	float (7.9.6.1.2)	Number of cooling plates per breeder unit; Scalar
cp_in_out	float (7.9.6.1.2)	Cooling plate input/output geometry length [m]; Scalar
he_man_tck	float (7.9.6.1.2)	Helium stage manifold thickness [m]; Scalar
man_tck	float (7.9.6.1.2)	Manifold zone thickness [m]; Scalar
pbli_bptb_od	float (7.9.6.1.2)	Output diameter of pbli tube [m]; Scalar
pbli_bptb_id	float (7.9.6.1.2)	Input diameter of pbli tube [m]; Scalar
he_bptb_od	float (7.9.6.1.2)	Output diameter of He inlet tube [m]; Scalar
he_bptb_id	float (7.9.6.1.2)	Input diameter of He inlet tube [m]; Scalar
dr_max_fw	float (7.9.6.1.2)	First wall frontmost thickness [m]; Scalar
dr_fwpl	float (7.9.6.1.2)	Radial thickness of fisrt protective layer [m]; Scalar

Type of: hcllbb_specs:mod_geom (3246)

7.9.6.1.84 bb_specs

Inboard

member	type	description
nbb	float (7.9.6.1.2)	Number of inboard or outboard bb modules (in a poloidal cut), Scalar
r1	float (7.9.6.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
r2	float (7.9.6.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
dimension	bb_dimension (7.9.6.1.82)	dimension of the various modules

Type of: bb:inboard (3075) I bb:outboard (3075)

7.9.6.1.85 beamletgroup

Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamlet-group provides a fair description.

member	type	description
position	rzphi0D (7.9.6.1.382)	Position of centre of injection unit surface (or grounded grid).
tang_rad	float (7.9.6.1.2)	Tangency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.6.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.6.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
width_horiz	float (7.9.6.1.2)	Horizontal width of the beam group at the injection unit surface (or grounded grid) [m]
width_vert	float (7.9.6.1.2)	Vertical width of the beam group at the injection unit surface (or grounded grid) [m]
focussing	focussing (7.9.6.1.227)	Describes how the beam is focussed.
divergence	divergence (7.9.6.1.191)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.6.1.86)	Detailed information on beamlets.

Type of: nbi_unit:beamletgroup (3299)

7.9.6.1.86 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.6.1.383)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.6.1.18)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.6.1.18)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.6.1.18)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: beamletgroup:beamlets (3079)

7.9.6.1.87 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.6.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.6.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.6.1.18)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.6.1.18)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent
position	waves_rtposition (7.9.6.1.521)	Ray/beam position
wavevector	waves_rtwavevector (7.9.6.1.522)	Ray/beam wave vector.
polarization	polarization (7.9.6.1.353)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.6.1.356)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (3094)

7.9.6.1.88 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.6.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.6.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.6.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.6.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: psi:boundary (3353)

7.9.6.1.89 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array1D(3)
type	integer (7.9.6.1.3)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Int
rho_tor	float (7.9.6.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Float.

Type of: corefieldneutral:boundary (3123) I corefieldneutrale:boundary (3124) I corefieldneutralv:boundary (3125)

7.9.6.1.90 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.6.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.6.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.6.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (3121)

7.9.6.1.91 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	matflt_type (7.9.6.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 2D (3,nzimp)
source	string (7.9.6.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	vecint_type (7.9.6.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nzimp)

member	type	description
rho	vecflt_type (7.9.6.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nzimp)
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: impurity_type:boundary (3251)

7.9.6.1.92 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.6.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.6.1.20)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.6.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.6.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (3122)

7.9.6.1.93 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.6.1.412)	diagnostic setup information
measure	exp1D (7.9.6.1.216)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (3044)

7.9.6.1.94 calorimetry_heat_source

Generic complex type for heat source or sink

member	type	description
name	string (7.9.6.1.4)	Name of the source. String
temp_in	float (7.9.6.1.2)	Temperature of the input flow [K]; Scalar
temp_out	float (7.9.6.1.2)	Temperature of the output flow [K]; Scalar
press_in	float (7.9.6.1.2)	Imput Pressure [Pa];Scalar
press_out	float (7.9.6.1.2)	Output Pressure [Pa];Scalar
flow	float (7.9.6.1.2)	Flow of the source [kg/s]; Scalar
power	float (7.9.6.1.2)	Power of the source [W];Scalar

Type of: heat_sources:sinks (3038) I heat_sources:sources (3038)

7.9.6.1.95 circuits

Description of the circuit of the power conversion system. Array of structure. (ncircuits).

member	type	description
component(:)	power_conv_component (7.9.6.1.354)	Description of the components of the power conversion system. Array of structure (ncomp).
power_net	float (7.9.6.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.6.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar

member	type	description
efficiency	float (7.9.6.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)

Type of: power_conv:circuits (3054)

7.9.6.1.96 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.6.1.376)	Circular coil centre
hlength	float (7.9.6.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.6.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (3466)

7.9.6.1.97 clusters

Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).

member	type	description
name	string (7.9.6.1.4)	Name of the toroidally distributed tile set. String.
start	integer (7.9.6.1.3)	ID of the tile set as a scalar where this superset starts. Integer.
finish	integer (7.9.6.1.3)	ID of the tile set as a scalar where this superset finishes. Integer.

Type of: solcurdiag:clusters (3059)

7.9.6.1.98 codeparam

Code parameters

member	type	description
codename	string (7.9.6.1.4)	Name of the code
codeversion	string (7.9.6.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.6.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.6.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.6.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: amns:codeparam (3018) I antenna_ec:codeparam (3069) I antenna_ic:codeparam (3070) I antenna_lh:codeparam (3071) I antennas:codeparam (3019) I bb_shield:codeparam (3020) I boundary:codeparam (3082) I boundaryimp:codeparam (3085) I coherentwave:codeparam (3094) I compositionc:codeparam (3021) I coredelta:codeparam (3022) I coredelta_values:codeparam (3119) I corefast:codeparam (3023) I corefast_values:codeparam (3120) I corefield:codeparam (3121) I corefieldion:codeparam (3122) I coreimpur:codeparam (3024) I coreneutrals:codeparam (3025) I coreprof:codeparam (3026) I coresource:codeparam (3027) I coresource_values:codeparam (3139) I coretransp:codeparam (3028) I coretransp_values:codeparam (3143) I cxdiag:codeparam (3029) I distri_vec:codeparam (3179) I distribution:codeparam (3030) I distsource:codeparam (3031) I distsource_source:codeparam (3184) I ecediag:codeparam (3032) I edge:codeparam (3033) I efcc:codeparam (3034) I equilibrium:codeparam (3035) I flush:codeparam (3216) I fusiondiag:codeparam (3036) I fusiondiag_fus_product:codeparam (3235) I halphadiag:codeparam (3037) I heat_sources:codeparam (3038) I ironmodel:codeparam (3040) I langmuirdiag:codeparam (3041) I launchs:codeparam (3042) I lineintegraldiag:codeparam (3267) I lithiumdiag:codeparam (3043) I magdiag:codeparam (3044) I mhd:codeparam (3045) I msediag:codeparam (3046) I nbi:codeparam (3047) I nbi_unit:codeparam (3299) I neoclassic:codeparam (3048) I ntm:codeparam (3049) I orbit:codeparam (3050) I pellets:codeparam (3051) I pfsystems:codeparam (3052) I power_conv:codeparam (3054) I psi:codeparam (3353) I reflectomet:codeparam (3055) I rfadiag:codeparam (3056) I sawteeth:codeparam (3057) I scenario:codeparam (3058) I solcurdiag:codeparam (3059) I spectral:codeparam (3424) I temporary:codeparam (3060) I toroidfield:codeparam (3062) I tsdiag:codeparam (3063) I turbulence:codeparam (3064) I wall:codeparam (3065) I waves:codeparam (3066)

7.9.6.1.99 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The particular causing ion or impurity charge state is determined by the path.

member	type	description
recycling	recycling_neutrals (7.9.6.1.365)	Recycling coefficients. Time-dependent
sputtering	sputtering_neutrals (7.9.6.1.433)	Sputtering coefficients. Time-dependent

Type of: coreneutrals:ioncoeff (3025) I impcoeff:chargestate (3249)

7.9.6.1.100 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
wave_id	enum_instance (7.9.6.1.207)	List of identifiers for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC (see waves_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.
composition	composition (7.9.6.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.6.1.120)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
global_param	waves_global_param (7.9.6.1.516)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.6.1.517)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.6.1.518)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.6.1.519)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.6.1.520)	2D profiles in poloidal cross-section
beamtracing(:)	beamtracing (7.9.6.1.87)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.6.1.228)	Solution by full wave code
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: waves:coherentwave (3066)

7.9.6.1.101 coil

Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.

member	type	description
desc_coils	desc_coils (7.9.6.1.155)	Description of the coils
coilcurrent	exp1D (7.9.6.1.216)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the geometry description [A]; Time-dependent
coilvoltage	exp1D (7.9.6.1.216)	Voltage on the full coil [V]; Time-dependent

Type of: efcc:coil (3034)

7.9.6.1.102 com

COM (Constants Of Motion) parameters identifying an orbit

member	type	description
amn	float (7.9.6.1.2)	Atomic mass of the particle; Scalar
zion	float (7.9.6.1.2)	Atomic charge of the particle; Scalar
energy	vecflt_type (7.9.6.1.18)	Energy of the particle [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.6.1.18)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.6.1.18)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.6.1.19)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:com (3050)

7.9.6.1.103 complexgrid

Generic definition of a complex grid

member	type	description
uid	integer (7.9.6.1.3)	Unique index of this grid. Used for handling multiple grids
id	string (7.9.6.1.4)	Name / identifier string for this grid
spaces(:)	complexgrid_space (7.9.6.1.112)	Definitions of grid spaces. Array of structures (number of spaces)
subgrids(:)	complexgrid_subgrid (7.9.6.1.113)	Definitions of subgrids. Array of structures (number of subgrids)
metric	complexgrid_metric (7.9.6.1.106)	Metric coefficients
geo(:)	complexgrid_geo_global (7.9.6.1.104)	Geometry data for implicit objects
bases(:)	complexgrid_vector (7.9.6.1.114)	Vector bases. Used for aligned vector representation. Time-dependent (added systematically for the COMP child inheritance of that property). Array of structures (number of bases)

Type of: edge:grid (3033) I f_expansion:grid (3212) I fullwave:grid (3222) I source_rate:grid (3417) I wall3d:grid (3495)

7.9.6.1.104 complexgrid_geo_global

Geometry information for implicitly defined grid objects (which cannot be stored in the space definitions); Array of structures (number of alternate geometries).

member	type	description
geotype	integer (7.9.6.1.3)	Type of geometry (id flag). A flag defining how the geometry data associated with grid objects is to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.6.1.4)	Type of geometry (id string).
coordtype	vecint_type (7.9.6.1.19)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
geo_matrix(:)	complexgrid_scalar (7.9.6.1.108)	Geometry data matrix associated with implicit objects. Array of structures (number of subgrids this information is stored on); The exact definition of the stored values depends on the geometry type of the geometry complexgrid_geo_global.geotype;
measure(:)	complexgrid_scalar (7.9.6.1.108)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects) in this geometry. [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:geo (3097)

7.9.6.1.105 complexgrid_indexlist

An index list describing a list of indices or a range of indices.; If the explicit index list ind is defined and has nonzero size, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.6.1.19)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). If additionally a third value range(3) is given, it is used as a stride. If it is omitted, a stride of 1 is assumed. Vector(3)
ind	vecint_type (7.9.6.1.19)	An explicit list of indices. If this member is defined and has nonzero size, the list is assumed to be explicit. Vector(length of explicit index list)

Type of: complexgrid_objectlist:indset (3101)

7.9.6.1.106 complexgrid_metric

Metric information for grid objects

member	type	description
measure(:)	complexgrid_scalar (7.9.6.1.108)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)
g11(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g11. Array of structures (number of subgrids this information is stored on)
g12(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g12. Array of structures (number of subgrids this information is stored on)
g13(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g13. Array of structures (number of subgrids this information is stored on)
g22(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g22. Array of structures (number of subgrids this information is stored on)
g23(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g23. Array of structures (number of subgrids this information is stored on)
g33(:)	complexgrid_scalar (7.9.6.1.108)	Metric coefficients g33. Array of structures (number of subgrids this information is stored on)
jacobian(:)	complexgrid_scalar (7.9.6.1.108)	Jacobian. Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:metric (3097)

7.9.6.1.107 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list is explicit if the matrix ind is given and has nonzero size. In this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are defined by a list of index lists stored in indset.

member	type	description
cls	vecint_type (7.9.6.1.19)	Class tuple of the grid objects in this object list. Vector (number of grid spaces)
indset(:)	complexgrid_indexlist (7.9.6.1.105)	Implicit list of the object indices.; Array of structures (number of grid spaces = length of index tuple). Every index of the index tuple is described by an index set, which defines either a list of index values or a range of index values.
ind	matint_type (7.9.6.1.16)	Explicit list of index tuples. Matrix (number of objects, number of spaces in grid).; First dimension: object index, second dimension: index tuple/space index.; If this field is defined and has nonzero size, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (3107)

7.9.6.1.108 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.6.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.6.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.6.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.6.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_geo_global:geo_matrix (3098) I complexgrid_geo_global:measure (3098) I complexgrid_metric:g11 (3100) I complexgrid_metric:g12 (3100) I complexgrid_metric:g13 (3100) I complexgrid_metric:g22 (3100) I complexgrid_metric:g23 (3100) I complexgrid_metric:g33 (3100) I complexgrid_metric:jacobian (3100) I complexgrid_metric:measure (3100) I complexgrid_vector:comp (3108) I complexgrid_vector_simplestruct:comp (3109) I edge_fluid_scalar:bndvalue (3190) I edge_fluid_scalar:source (3190) I edge_fluid_scalar:value (3190) I edge_fluid_scalar_simple (3191) I edge_fluid_scalar_simplestruct:source (3191) I edge_fluid_scalar_simplestruct:value (3191) I edge_kinetic_distribution (3196) I edge_kinetic_distribution:source (3196) I edge_kinetic_distribution:value (3196) I f_expansion:values (3212) I source_rate:value (3417) I wall_unitsComplexType:eta (3501) I wall_unitsComplexType:permeability (3501)

7.9.6.1.109 complexgrid_scalar_cplx

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.6.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	veccplx_type (7.9.6.1.17)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Complex Vector(nobjects_subgrid). First dimension: object index.
vector	matcplx_type (7.9.6.1.14)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Complex matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dcplx_type (7.9.6.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d complex array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: e_components:b_binorm (3186) I e_components:b_norm (3186) I e_components:b_para (3186) I e_components:e_binor (3186) I e_components:e_minus (3186) I e_components:e_norm (3186) I e_components:e_para (3186) I e_components:e_plus (3186) I e_components:k_perp (3186)

7.9.6.1.110 complexgrid_scalar_int

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.6.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecint_type (7.9.6.1.19)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matint_type (7.9.6.1.16)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dint_type (7.9.6.1.8)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.6.1.111 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.6.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.6.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.6.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.6.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.6.1.112 complexgrid_space

Description of a grid space

member	type	description
geotype	vecint_type (7.9.6.1.19)	Type of space geometry (id flags). Flags defining how the geometry (objects.geo) fields associated with; space objects are to be interpreted. Array (number of geometries defined for this space),; first dimension: geometry index. A flag value of GRID_UNDEFINED=0 indicates the standard interpretation for; the given coordinates.
geotypeid	vecstring_type (7.9.6.1.20)	Type of space geometries (id string). See geotype.
coordtype	matint_type (7.9.6.1.16)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
objects(:)	objects (7.9.6.1.318)	Definition of the space objects.; Array of structures (dimension of highest-dimensional objects).; First dimension: dimension of the objects (1=nodes, 2=edges, 3=faces, 4=cells/volumes, ...)
xpoints	vecint_type (7.9.6.1.19)	List of indices of all nodes which are x-points. Vector (number of x-points)

Type of: complexgrid:spaces (3097)

7.9.6.1.113 complexgrid_subgrid

Subgrid definition. A subgrid is a list of grid objects, given as a list of explict or implicit object lists.

member	type	description
id	string (7.9.6.1.4)	ID string (name) of the subgrid.
list(:)	complexgrid_objectlist (7.9.6.1.107)	List of object lists. Array of structures (number of object lists).

Type of: complexgrid:subgrids (3097)

7.9.6.1.114 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this vector quantity is associated with.
label	string (7.9.6.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.6.1.108)	Components of the vector. Array of structures (number of vector components). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.6.1.19)	Alignment flag for vector components. Integer vector (number of vector components).
alignid	vecstring_type (7.9.6.1.20)	Alignment id for vector components. String vector (number of vector components).
basis	integer (7.9.6.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.

Type of: complexgrid:bases (3097) I edge_fluid:b (3189) I edge_fluid_scalar:bndflux (3190) I edge_fluid_scalar:flux (3190) I edge_fluid_scalar_simplestruct:bndflux (3191) I edge_fluid_scalar_simplestruct:flux (3191) I edge_kinetic_distribution (3196) I wall_unitsComplexType:j (3501)

7.9.6.1.115 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.6.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.6.1.108)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.6.1.19)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.6.1.20)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (3192) I edge_fluid_scalar_transpcoeff:v (3192)

7.9.6.1.116 composition

Plasma composition (description of ion species). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.6.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.6.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.6.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.6.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	vecstring_type (7.9.6.1.20)	Label for the ions - note the charge state is not included; String Vector (nion)

Type of: coherentwave:composition (3094) I coredelta:composition (3022) I corefast:composition (3023) I coreneutrals:composition (3025) I coreprof:composition (3026) I coresource:composition (3027) I coretransp:composition (3028) I distribution:composition (3030) I distsource:composition (3031) I neoclassic:composition (3048) I sawteeth:composition (3057)

7.9.6.1.117 composition_neutrals

Description of neutrals species

member	type	description
atomlist(:)	coreneutrals_atomlist (7.9.6.1.141)	List of the atoms that enter the composition of the neutral species. Vector(natm)
neutral(:)	composition_neutralscomp (7.9.6.1.119)	List of neutrals. Vector(nneut)

Type of: coreneutrals:neutcompo (3025)

7.9.6.1.118 composition_neutrals_neutcomp

Array of components to the atom or molecule. Vector (ncomp)

member	type	description
nucindex	integer (7.9.6.1.3)	Index into list of nuclei; int
multiplicity	integer (7.9.6.1.3)	Multiplicity of the atom; int

Type of: composition_neutralscomp:neutcomp (3113)

7.9.6.1.119 composition_neutralscomp

Array of neutrals.

member	type	description
neutcomp(:)	composition_neutrals_neutcomp (7.9.6.1.118)	Array of components to the atom or molecule. Vector (ncomp)
type(:)	identifier (7.9.6.1.254)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Vector (ntype) of identifiers
label	string (7.9.6.1.4)	String identifying the atom or molecule (e.g. D2, DT, CD4, ...)

Type of: composition_neutrals:neutral (3111) I compositions_type:neutralscomp (3114)

7.9.6.1.120 compositions_type

Generic declaration of Plasma composition for a simulation

member	type	description
nuclei(:)	nuclei (7.9.6.1.317)	Array of nuclei considered.
ions(:)	ions (7.9.6.1.259)	Array of main plasma ions.
impurities(:)	impurities (7.9.6.1.256)	Array of impurities.
neutralscomp(:)	composition_neutralscomp (7.9.6.1.119)	Array of neutrals.
edgespecies(:)	edgespecies (7.9.6.1.204)	Array of edge species.
signature	identifier (7.9.6.1.254)	Identifier for species choices. The goal of this is to uniquely capture the species blocks so that if the signatures are the same then the species blocks will also be the same.

Type of: coherentwave:compositions (3094) I compositionc:compositions (3021) I coredelta:compositions (3022) I corefast:compositions (3023) I coreimpur:compositions (3024) I coreneutrals:compositions (3025) I coreprof:compositions (3026) I coresource:compositions (3027) I coretransp:compositions (3028) I distribution:compositions (3030) I distsource:compositions (3031) I edge:compositions (3033) I neoclassic:compositions (3048) I pellets:compositions (3051) I wall:compositions (3065)

7.9.6.1.121 compound_desc

Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)

member	type	description
label	string (7.9.6.1.4)	Compound name/label
stochiometry	vecflt_type (7.9.6.1.18)	Fractional composition of the compound. Float vector, dimensions: 1. element number (numbering as in wall/elements array)
density	float (7.9.6.1.2)	Compound density (molecules/m^3)
heat_cap	float (7.9.6.1.2)	Specific heat capacity [J/(eV kg)]
heat_cond	vecflt_type (7.9.6.1.18)	Thermal conductivity [W/(m eV)]
surf_recrate	matflt_type (7.9.6.1.15)	Recombination rate on surface (only for pure elements, not compounds) [molecules*m^2/s]; Dimensions: index 1: first recombining element, index 2: second recombining element (numbering as in wall/elements array)

Type of: wall:compounds (3065)

7.9.6.1.122 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.6.1.4)	Type of coordinate system
grid	reggrid (7.9.6.1.372)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.6.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.6.1.15)	metric coefficients g_11; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.6.1.15)	metric coefficients g_12; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.6.1.15)	metric coefficients g_13; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.6.1.15)	metric coefficients g_22; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.6.1.15)	metric coefficients g_23; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.6.1.15)	metric coefficients g_33; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.6.1.380)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (3035) I mhd_plasma:coord_sys (3278) I mhd_vacuum:coord_sys (3280)

7.9.6.1.123 coordinates

Poloidal and Toroidal coordinates of the center of each hole;

member	type	description
theta	vecflt_type (7.9.6.1.18)	Theta coordinate of holes center; Vector (n_holes)
phi	vecflt_type (7.9.6.1.18)	Toroidal coordinate of holes center; Vector (n_holes)

Type of: holes:coordinates (3247)

7.9.6.1.124 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description

member	type	description
coord	vecflt_type (7.9.6.1.18)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.6.1.20)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.6.1.19)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.6.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.6.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.6.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.6.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.6.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (3434)

7.9.6.1.125 coredelta_values

Description of the delta term for a given origin

member	type	description
deltaid	identifier (7.9.6.1.254)	Identifier for the origin of the delta terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
delta_psi	vecflt_type (7.9.6.1.18)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.6.1.18)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.6.1.15)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_tz	array3dflt_type (7.9.6.1.7)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_ne	vecflt_type (7.9.6.1.18)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.6.1.15)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
delta_nz	array3dflt_type (7.9.6.1.7)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Array3d (nrho,nimp,max_nzimp).
delta_vtor	matflt_type (7.9.6.1.15)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coredelta:values (3022)

7.9.6.1.126 corefast_values

Description of the source terms for a given origin

member	type	description
fastid	identifier (7.9.6.1.254)	Identifier for the origin of the non-thermal contributions (see fast_particle_origin_identifier in the Documentation website under Conventions/Enumerated_datatypes). Time-dependent.
filter	fast_thermal_separation_filter (7.9.6.1.219)	Description of how the fast and the thermal particle populations were separated. Time-dependent.
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point). Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.6.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Vector (nrho). Time-dependent.
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]. Vector (nrho). Time-dependent.
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]. Vector (nrho). Time-dependent.
j	vecflt_type (7.9.6.1.18)	Non thermal current, = average(j.B) / B0, where B0 = corefast/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.

member	type	description
sigma	vecflt_type (7.9.6.1.18)	Non-thermal induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
ni	matflt_type (7.9.6.1.15)	Non-thermal ion density [m^-3]. Matrix(nrho,nions). Time-dependent.
ne	vecflt_type (7.9.6.1.18)	Non-thermal electron density [m^-3]. Vector(nrho). Time-dependent.
nz	matflt_type (7.9.6.1.15)	Non-thermal impurity density [m^-3]. Matrix(nrho,nimpur). Time-dependent.
pi	matflt_type (7.9.6.1.15)	Non-thermal ion pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe	vecflt_type (7.9.6.1.18)	Non-thermal electron pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz	matflt_type (7.9.6.1.15)	Non-thermal impurity total pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
pi_para	matflt_type (7.9.6.1.15)	Non-thermal ion parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe_para	vecflt_type (7.9.6.1.18)	Non-thermal electron parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz_para	matflt_type (7.9.6.1.15)	Non-thermal impurity parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
ui	matflt_type (7.9.6.1.15)	Non-thermal ion toroidal velocity [m.s^-1]. Matrix(nrho,nions). Time-dependent.
uz	matflt_type (7.9.6.1.15)	Non-thermal impurity toroidal velocity [m.s^-1]. Matrix(nrho,nimpur). Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: corefast:values (3023)

7.9.6.1.127 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.6.1.18)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.6.1.18)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Vector (nrho)
ddt	vecflt_type (7.9.6.1.18)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Vector (nrho)
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.6.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.6.1.90)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.6.1.425)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.6.1.146)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.6.1.224)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	vecflt_type (7.9.6.1.18)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Vector (nrho)
time_deriv	vecflt_type (7.9.6.1.18)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coreprof:ne (3026) I coreprof:te (3026)

7.9.6.1.128 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.6.1.15)	Signal value; Time-dependent; Matrix (nrho,nion)
ddrho	matflt_type (7.9.6.1.15)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
d2drho2	matflt_type (7.9.6.1.15)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Matrix (nrho,nion)
ddt	matflt_type (7.9.6.1.15)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.6.1.19)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)

member	type	description
boundary	boundaryion (7.9.6.1.92)	Boundary condition for the transport equation
source_term	sourceion (7.9.6.1.427)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.6.1.148)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.6.1.226)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	matflt_type (7.9.6.1.15)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Matrix(nrho,nion)
time_deriv	matflt_type (7.9.6.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coreprof:ni (3026) I coreprof:ti (3026) I coreprof:vtor (3026)

7.9.6.1.129 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.6.1.18)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.6.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:n0 (3136)

7.9.6.1.130 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.6.1.18)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.6.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:t0 (3136)

7.9.6.1.131 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Vector(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.6.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (3126) I corefieldneutralv0:radial (3126) I corefieldneutralv0:toroidal (3126)

7.9.6.1.132 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.6.1.131)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.6.1.131)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.6.1.131)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: coreneutrals_neutraltype:v0 (3136)

7.9.6.1.133 coreimpurdiag_sum_radiation

member	type	description
line_rad	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS
brem_radrec	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS
sum	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS

Type of: coreimpurediag_sum:radiation (3130)

7.9.6.1.134 coreimpurediag_energy

member	type	description
ionization	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS
recombin	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS
sum	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS

Type of: coreimpurediag_type:energy (3132)

7.9.6.1.135 coreimpurediag_radiation

member	type	description
line_rad	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS
brem_radrec	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS
sum	coreimpurediagprof_type (7.9.6.1.139)	NO DOCS

Type of: coreimpurediag_type:radiation (3132)

7.9.6.1.136 coreimpurediag_sum

member	type	description
radiation	coreimpurdiag_sum_radiation (7.9.6.1.133)	NO DOCS
energy	coreimpurediag_sum_energy (7.9.6.1.137)	NO DOCS

Type of: coreimpur:diagnosticsum (3024)

7.9.6.1.137 coreimpurediag_sum_energy

member	type	description
ionization	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS
recombin	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS
sum	coreimpurediagsum_type (7.9.6.1.140)	NO DOCS

Type of: coreimpurediag_sum:energy (3130)

7.9.6.1.138 coreimpurediag_type

member	type	description
radiation	coreimpurediag_radiation (7.9.6.1.135)	NO DOCS
energy	coreimpurediag_energy (7.9.6.1.134)	NO DOCS

Type of: coreimpur:diagnostic (3024) I impurity_type:diagnostic (3251)

7.9.6.1.139 coreimpurediagprof_type

member	type	description
profile	matflt_type (7.9.6.1.15)	Profile of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)
integral	matflt_type (7.9.6.1.15)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)

Type of: coreimpurediag_energy:ionization (3128) I coreimpurediag_energy:recombin (3128) I coreimpurediag_energy:sum (3128) I coreimpurediag_radiation:brem_radrec (3129) I coreimpurediag_radiation:line_rad (3129) I coreimpurediag_radiation:sum (3129)

7.9.6.1.140 coreimpurediagsum_type

member	type	description
profile	vecflt_type (7.9.6.1.18)	Profile of the radiation or energy sources. Time-dependent. Array1D (nrho)
integral	vecflt_type (7.9.6.1.18)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array1D (nrho)

Type of: coreimpurdiag_sum_radiation:brem_radrec (3127) I coreimpurdiag_sum_radiation:line_rad (3127) I coreimpurdiag_sum_radiation:sum (3127) I coreimpurediag_sum_energy:ionization (3131) I coreimpurediag_sum_energy:recom (3131) I coreimpurediag_sum_energy:sum (3131)

7.9.6.1.141 coreneutrals_atomlist

List of the atoms that enter the composition of the neutral species. Vector(natm)

member	type	description
amn	float (7.9.6.1.2)	Atomic mass number; Float
zn	float (7.9.6.1.2)	Nuclear charge; Float
ionimptype	identifier (7.9.6.1.254)	Identifier whether ion in coreprof or impurity in coreimpur.
ionimpindex	integer (7.9.6.1.3)	Index in composition or desc_impur of the corresponding ion or impurity.

Type of: composition_neutrals:atomlist (3111)

7.9.6.1.142 coreneutrals_neutraltype

Array (ntype) over neutral types.

member	type	description
n0	corefieldneutral (7.9.6.1.129)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.6.1.130)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.6.1.132)	Neutral velocity [m.s^-1]. Time-dependent;

Type of: neutral_complex_type:neutraltype (3302)

7.9.6.1.143 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (3351) I profiles1d:dpedt (3351) I profiles1d:dpi_totdt (3351) I profiles1d:dvprimedt (3351) I profiles1d:e_b (3351) I profiles1d:eparallel (3351) I profiles1d:jni (3351) I profiles1d:joh (3351) I profiles1d:jphi (3351) I profiles1d:jtot (3351) I profiles1d:pe (3351) I profiles1d:pi_tot (3351) I profiles1d:pr_parallel (3351) I profiles1d:pr_perp (3351) I profiles1d:pr_th (3351) I profiles1d:q (3351) I profiles1d:qei (3351) I profiles1d:shear (3351) I profiles1d:sigmapar (3351) I profiles1d:vloop (3351) I profiles1d:zeff (3351) I psi:sigma_par (3353)

7.9.6.1.144 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.6.1.15)	Signal value; Time-dependent; Vector (nrho,nion)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (3351) I profiles1d:ns (3351) I profiles1d:pi (3351) I profiles1d:wtor (3351)

7.9.6.1.145 coresource_values

Description of the source terms for a given origin

member	type	description
sourceid	identifier (7.9.6.1.254)	Identifier for the origin of the source terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
j	vecflt_type (7.9.6.1.18)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.6.1.18)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.6.1.422)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_vec (7.9.6.1.424)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz(:)	source_imp (7.9.6.1.421)	Particle source for impurity density transport equation [m^-3.s^-1]. Vector(nimpur). Time-dependent.
qi	source_ion (7.9.6.1.422)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_vec (7.9.6.1.424)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz(:)	source_imp (7.9.6.1.421)	Heat source for impurity heat transport equations [W.m^-3]. Vector(nimpur). Time-dependent.
ui	source_ion (7.9.6.1.422)	Toroidal torque on individual ion species; for toroidal momentum transport equation [kg.m^-1.s^-2]. Time-dependent.
ujxb	source_vec (7.9.6.1.424)	Toroidal JxB torque on bulk plasma; for toroidal momentum transport equation [kg.m^-1.s^-2]. Here J is the return current from fast ion radial currents Jfast=-J. Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coresource:values (3027)

7.9.6.1.146 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.6.1.18)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.6.1.18)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)

member	type	description
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (3121)

7.9.6.1.147 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	matflt_type (7.9.6.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array2D(nrho,nzimp)
vconv	matflt_type (7.9.6.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Array2D (nrho,nzimp)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:transp_coef (3251)

7.9.6.1.148 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.6.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.6.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (3122)

7.9.6.1.149 coretransp_values

Description of transport term coming from various origins. Array of structure (ntransp)

member	type	description
transportid	identifier (7.9.6.1.254)	Identifier for the origin of the transport terms (see conventions in the ITM website)
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
sigma	vecflt_type (7.9.6.1.18)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.6.1.310)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.6.1.306)	Transport coefficients for electron density equation. Time-dependent.
nz_transp(:)	transcoefimp (7.9.6.1.480)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.6.1.481)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.6.1.479)	Transport coefficients for electron temperature equation. Time-dependent.
tz_transp(:)	transcoefimp (7.9.6.1.480)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.6.1.482)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coretransp:values (3028)

7.9.6.1.150 current

Description of the IC surface currents on the antenna straps and on passive components.

member	type	description
mpol	vecint_type (7.9.6.1.19)	Poloidal modes, used to describe the spectrum of the antenna current. The poloidal angle is defined from the reference point rz_reference; the angle at a point (R,Z) is given by atan((Z-Zref)/(R-Rref)), where Rref=rz_reference/r and Zref=rz_reference/z. Time-Dependent; Integer(n_poloidal_modes)
ntor	vecint_type (7.9.6.1.19)	Toroidal modes, used to describe the spectrum of the antenna current. Time-Dependent; Integer(n_toroidal_modes)
spectrum	exp1D (7.9.6.1.216)	Spectrum of the total surface current on the antenna strap and passive components expressed in poloidal and toroidal mode [A]. Calculated using a geometrical poloidal angle around the point rz_reference. Time-dependent; exp1D(n_poloidal_modes , n_toroidal_modes)
rz_reference	rz0D (7.9.6.1.376)	Reference point used to define the poloidal angle, e.g. the geometrical centre of the vacuum vessel. Time-dependent; rz0d

Type of: antennaic_setup:current (3072)

7.9.6.1.151 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.6.1.216)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.6.1.216)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.6.1.216)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (3029)

7.9.6.1.152 cxsetup

diagnostic setup information

member	type	description
amn	vecflt_type (7.9.6.1.18)	Mass of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
zn	vecflt_type (7.9.6.1.18)	Nuclear charge of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
position	rzphi1Dexp (7.9.6.1.384)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (3029)

7.9.6.1.153 data_release

Stores information about each entry available at this version.

member	type	description
shot	integer (7.9.6.1.3)	Shot number = Mass*100+Nuclear_charge.
run	integer (7.9.6.1.3)	Which run number is the active run number for this version.
description	vecstring_type (7.9.6.1.20)	Possible description of why this version of the data is the current version.

Type of: version_ind:data_release (3492)

7.9.6.1.154 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.6.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.6.1.4)	Date at which the data has been put in the DB
source	string (7.9.6.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.6.1.4)	Any additional comment
cocos	integer (7.9.6.1.3)	COordinates COnventionS followed by this CPO
id	integer (7.9.6.1.3)	CPO id for checking its provenance in the workflow
isref	integer (7.9.6.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.6.1.524)	Structure defining a database entry and the CPO occurrence

member	type	description
putinfo	putinfo (7.9.6.1.360)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (3018) I antennas:datainfo (3019) I bb_shield:datainfo (3020) I compositionc:datainfo (3021) I coredelta:datainfo (3022) I corefast:datainfo (3023) I coreimpur:datainfo (3024) I coreneutrals:datainfo (3025) I coreprof:datainfo (3026) I coresource:datainfo (3027) I coretransp:datainfo (3028) I cxdiag:datainfo (3029) I distribution:datainfo (3030) I distsource:datainfo (3031) I ecediag:datainfo (3032) I edge:datainfo (3033) I efcc:datainfo (3034) I equilibrium:datainfo (3035) I flush:datainfo (3216) I fusiondiag:datainfo (3036) I halphadiag:datainfo (3037) I heat_sources:datainfo (3038) I ironmodel:datainfo (3040) I langmuirdiag:datainfo (3041) I launchs:datainfo (3042) I lineintegraldiag:datainfo (3267) I lithiumdiag:datainfo (3043) I magdiag:datainfo (3044) I mhd:datainfo (3045) I msediag:datainfo (3046) I nbi:datainfo (3047) I neoclassic:datainfo (3048) I ntm:datainfo (3049) I orbit:datainfo (3050) I pellets:datainfo (3051) I pfsystems:datainfo (3052) I power_conv:datainfo (3054) I reflectomet:datainfo (3055) I rfadiag:datainfo (3056) I sawteeth:datainfo (3057) I scenario:datainfo (3058) I solcurdiag:datainfo (3059) I temporary:datainfo (3060) I toroidfield:datainfo (3062) I tsdiag:datainfo (3063) I turbulence:datainfo (3064) I wall:datainfo (3065) I waves:datainfo (3066)

7.9.6.1.155 desc_coils

Description of the coils

member	type	description
name	string (7.9.6.1.4)	Name of coil.
res	float (7.9.6.1.2)	Coil resistance [Ohm]
nturns	integer (7.9.6.1.3)	number of turns inside the coil
closed	string (7.9.6.1.4)	Identify whether the coil is closed (y) or open (n). For closed coils there is no need to replicate the first r,z,phi point as last point
edges(:)	edges (7.9.6.1.203)	Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

Type of: coil:desc_coils (3095)

7.9.6.1.156 desc_impur

Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.6.1.18)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.6.1.19)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.6.1.19)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.6.1.19)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.6.1.16)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.6.1.16)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)
label	vecstring_type (7.9.6.1.20)	Label for the impurities - note that the charge state is not included; String Vector (nimp)

Type of: coredelta:desc_impur (3022) I corefast:desc_impur (3023) I coreimpur:desc_impur (3024) I coreneutrals:desc_impur (3025) I coreprof:desc_impur (3026) I coresource:desc_impur (3027) I coretransp:desc_impur (3028) I neoclassic:desc_impur (3048)

7.9.6.1.157 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.6.1.20)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.6.1.338)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.6.1.246)	Geometry of the iron segments

Type of: ironmodel:desc_iron (3040)

7.9.6.1.158 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.6.1.20)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.6.1.18)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.6.1.18)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
structure_cs	structure_cs (7.9.6.1.435)	Detailed description of the coil structure, for coils that are part of the central solenoid.
pol_flux_cs	float (7.9.6.1.2)	Maximum poloidal flux available in the Central Solenoid for a plasma pulse [Wb].
nelement	vecint_type (7.9.6.1.19)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.6.1.341)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (3334)

7.9.6.1.159 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.6.1.20)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.6.1.20)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.6.1.18)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.6.1.220)	Laplace proper filter
imin	vecflt_type (7.9.6.1.18)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.6.1.18)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.6.1.18)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.6.1.18)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.6.1.18)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.6.1.18)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (3340)

7.9.6.1.160 diag_func

Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

member	type	description
description	string (7.9.6.1.4)	Short description of the detector with reference to the number of cells (ncells).
transf_mat	matflt_type (7.9.6.1.15)	Transfer matrix of the detector. Each l.o.s. might have a dedicated detector response function and energy resolution (and number of cells). Time-independent. Matrix (ncells,nenergy)

Type of: fusiondiag_detect_ct_energy:diag_func (3232)

7.9.6.1.161 dist_collisional_transfer_0d

Collisional exchange with the electrons. Time-dependent

member	type	description
power_th	float (7.9.6.1.2)	Collisional power to the thermal particle population [W]; Time-dependent; Scalar
power_fast	float (7.9.6.1.2)	Collisional power to the fast particle population [W]; Time-dependent; Scalar
torque_th	float (7.9.6.1.2)	Collisional toroidal torque to the thermal particle population [N.m]; Time-dependent; Scalar
torque_fast	float (7.9.6.1.2)	Collisional toroidal torque to the fast particle population [N.m]; Time-dependent; Scalar

Type of: dist_global_param:collisions_e (3164) I dist_global_param:collisions_i (3164) I dist_global_param_collisions_z:charge_s (3165)

7.9.6.1.162 dist_collisional_transfer_1d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	vecflt_type (7.9.6.1.18)	Flux surface averaged collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Vector(npsi)
power_fast	vecflt_type (7.9.6.1.18)	Flux surface averaged collisional power density to the fast particle population [W.m^-3]; Time-dependent; Vector(npsi)
torque_th	vecflt_type (7.9.6.1.18)	Flux surface averaged collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Vector(npsi)
torque_fast	vecflt_type (7.9.6.1.18)	Flux surface averaged collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Vector(npsi)

Type of: dist_profile_values_1d:collisions_e (3167) I dist_profile_values_1d:collisions_i (3167) I dist_profiles_1d:collisions_e (3170) I dist_profiles_1d:collisions_i (3170) I dist_profiles_1d_collisions_z:charge_state (3171)

7.9.6.1.163 dist_collisional_transfer_2d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	matflt_type (7.9.6.1.15)	Collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
power_fast	matflt_type (7.9.6.1.15)	Collisional power density to the fast particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_th	matflt_type (7.9.6.1.15)	Collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_fast	matflt_type (7.9.6.1.15)	Collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)

Type of: dist_profile_values_2d:collisions_e (3168) I dist_profile_values_2d:collisions_i (3168) I dist_profiles2d_collisions_z:char (3169) I dist_profiles_2d:collisions_e (3172) I dist_profiles_2d:collisions_i (3172)

7.9.6.1.164 dist_distrivec_distfunc_fexp_param

Parameters used to defined the grid coordinates. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.6.1.212)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent
temperature	vecflt_type (7.9.6.1.18)	Reference temperature profile (eV); on the grid in /distsource/source/profiles_1d/rho_tor. Used to define the local thermal energy and the thermal velocity. Time-dependent; Vector(npsi)

Type of: f_expansion:parameters (3212)

7.9.6.1.165 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.6.1.172)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions(:)	topo_regions (7.9.6.1.476)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expan_topo (3160)

7.9.6.1.166 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent

member	type	description
is_delta_f	integer (7.9.6.1.3)	If is_delta_f=1, then the distribution represents the deviation from a Maxwellian; is_delta_f=0, then the distribution represents all particles, i.e. the full-f solution. Time-dependent
markers	weighted_markers (7.9.6.1.523)	Distribution represented by a set of markers (test particles). Time-dependent
f_expan_topo(:)	dist_ff (7.9.6.1.165)	TO BE REMOVED. KEPT TEMPORARILY AS AN ALTERNATIVE TO f_expansion. [Distribution function, f, expanded into a vector of successive approximations (topology-based formulation, without the grid-cpo). The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)]. Time-dependent
f_expansion(:)	f_expansion (7.9.6.1.218)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (3179)

7.9.6.1.167 dist_geometry_0d

Geometrical constants

member	type	description
mag_axis	rz0D (7.9.6.1.376)	Position of the magnetic axis [m]. Time-dependent; Scalar
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor and to measure the current drive. Time-dependent; Scalar

Type of: dist_global_param:geometry (3164)

7.9.6.1.168 dist_geometry_1d

Grids and metric information; including rho_tor, psi, area and volume. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.6.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed by the flux surface [m^3]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)

Type of: dist_profiles_1d:geometry (3170)

7.9.6.1.169 dist_geometry_2d

Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent

member	type	description
coord_type	integer (7.9.6.1.3)	0: Rectangular grid in the (R,Z) coordinates; 1: Rectangular grid in the (rho_tor,theta_geom) coordinates; 2: Rectangular grid in the (rho_tor,theta_straight) coordinates.
r	matflt_type (7.9.6.1.15)	Major radius coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
z	matflt_type (7.9.6.1.15)	Vertical coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
rho_tor	matflt_type (7.9.6.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (n_coord1,n_coord2)

member	type	description
psi	matflt_type (7.9.6.1.15)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (n_coord1,n_coord2)
theta_geom	matflt_type (7.9.6.1.15)	Geometrical poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)
theta_strt	matflt_type (7.9.6.1.15)	Straight field line poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)

Type of: dist_profiles_2d:geometry (3172)

7.9.6.1.170 dist_global_param

Global parameters; spatial constants, volume integrated quantities and quantities averaged over the cross-sectional area. Here the dimensions used refer to: nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin.

member	type	description
geometry	dist_geometry_0d (7.9.6.1.167)	Geometrical constants
state	dist_state_0d (7.9.6.1.182)	Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent
collisions_e	dist_collisional_transfer_0d (7.9.6.1.161)	Collisional exchange with the electrons. Time-dependent
collisions_i(:)	dist_collisional_transfer_0d (7.9.6.1.161)	Collisional exchange with each ion species. The ion indexing should match the one in /distribution/compositions/ions.Time-dependent; Vector(nion)
collisions_z(:)	dist_global_param_collisions_z (7.9.6.1.171)	Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/impurities. Time-dependent; Vector(nimpur)
sources(:)	dist_sources_0d (7.9.6.1.179)	Vector of volume integrated sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for ./source/type. Time-dependent; Scalar

Type of: distri_vec:global_param (3179)

7.9.6.1.171 dist_global_param_collisions_z

Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/imp
Time-dependent

member	type	description
charge_state(:)	dist_collisional_transfer_0d (7.9.6.1.161)	Collisional exchange with the impurities. The ion indexing should match the one in distribution/compositions/impurities/zmin. Time-dependent; Vector(nzimp)

Type of: dist_global_param:collisions_z (3164)

7.9.6.1.172 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.6.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)
ngriddim	integer (7.9.6.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.

member	type	description
grid_coord	vecint_type (7.9.6.1.19)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.6.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.6.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf(:)	omnigen_surf (7.9.6.1.321)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (3159)

7.9.6.1.173 dist_profile_values_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
state	dist_state_1d (7.9.6.1.183)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.6.1.162)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.6.1.162)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.6.1.177)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
sources(:)	dist_sources_1d (7.9.6.1.180)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)

Type of: dist_profiles_1d:cntr_passing (3170) I dist_profiles_1d:co_passing (3170) I dist_profiles_1d:trapped (3170)

7.9.6.1.174 dist_profile_values_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
state	dist_state_2d (7.9.6.1.184)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_2d (7.9.6.1.163)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.6.1.163)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles2d_collisions_z (7.9.6.1.175)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)

Type of: dist_profiles_2d:cntr_passing (3172) I dist_profiles_2d:co_passing (3172) I dist_profiles_2d:trapped (3172)

7.9.6.1.175 dist_profiles2d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_2d (7.9.6.1.163)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_2d:collisions_z (3168) I dist_profiles_2d:collisions_z (3172)

7.9.6.1.176 dist_profiles_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
geometry	dist_geometry_1d (7.9.6.1.168)	Grids and metric information; including rho_tor, psi, area and volume. Time-dependent
state	dist_state_1d (7.9.6.1.183)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.6.1.162)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.6.1.162)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.6.1.177)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
sources(:)	dist_sources_1d (7.9.6.1.180)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)
trapped	dist_profile_values_1d (7.9.6.1.173)	Flux surface averaged profile evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_1d (7.9.6.1.173)	Flux surface averaged profile evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_1d (7.9.6.1.173)	Flux surface averaged profile evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_1d (3179)

7.9.6.1.177 dist_profiles_1d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_1d (7.9.6.1.162)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_1d:collisions_z (3167) I dist_profiles_1d:collisions_z (3170)

7.9.6.1.178 dist_profiles_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
geometry	dist_geometry_2d (7.9.6.1.169)	Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent
state	dist_state_2d (7.9.6.1.184)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_2d (7.9.6.1.163)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.6.1.163)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles2d_collisions_z (7.9.6.1.175)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
trapped	dist_profile_values_2d (7.9.6.1.174)	2D profiles evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_2d (7.9.6.1.174)	2D profiles evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_2d (7.9.6.1.174)	2D profiles evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_2d (3179)

7.9.6.1.179 dist_sources_0d

Volume integrated source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.6.1.181)	Reference identifying the origin and type of source; Time-dependedent
particle	float (7.9.6.1.2)	Source (or sink) rate of particles [1/s]; Time-dependedent; Scalar
momentum	float (7.9.6.1.2)	Source (or sink) rate of toroidal angular momentum [Nm/s]; Time-dependedent; Scalar
energy	float (7.9.6.1.2)	Source (or sink) rate of energy [J/s]; Time-dependedent; Scalar

Type of: dist_global_param:sources (3164)

7.9.6.1.180 dist_sources_1d

Flux surface averaged source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.6.1.181)	Reference identifying the origin and type of source; Time-dependedent
particle	vecflt_type (7.9.6.1.18)	Source (or sink) rate of particles density [1/s/m**3]; Time-dependedent; Vector (npsi)
momentum	vecflt_type (7.9.6.1.18)	Source (or sink) rate of toroidal angular momentum density [Nm/s/m**3]; Time-dependedent; Vector (npsi)
energy	vecflt_type (7.9.6.1.18)	Source (or sink) rate of energy density [J/s/m**3]; Time-dependedent; Vector (npsi)

Type of: dist_profile_values_1d:sources (3167) I dist_profiles_1d:sources (3170)

7.9.6.1.181 dist_sources_reference

Volume integrated source included in the Fokker-Planck model.

member	type	description
type	identifier (7.9.6.1.254)	Identifier for sources and sinks in Fokker-Planck solver; type.flag=1 for wave source, type.flag=2 for particle source, etc (see fokker_planck_source_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes); Time-dependedent
index_waveid	vecint_type (7.9.6.1.19)	Index pointing to /distribution/distri_vec/wave_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)
index_srcid	vecint_type (7.9.6.1.19)	Index pointing to /distribution/distri_vec/source_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)

Type of: dist_sources_0d:source_ref (3173) I dist_sources_1d:source_ref (3174)

7.9.6.1.182 dist_state_0d

Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent

member	type	description
n_particles	float (7.9.6.1.2)	Number of particles in the distribution; the volume integral of the density (note: this is the number of real particles and not markers); Time-dependent
n_part_fast	float (7.9.6.1.2)	Number of fast particles in the distribution; the volume integral of the fast particle density (note: this is the number of real particles and not markers); Time-dependent
enrg	float (7.9.6.1.2)	Total energy distribution [J]; Time-dependent
enrg_fast	float (7.9.6.1.2)	Total energy of the fast particle distribution [J]; Time-dependent
enrg_fast_pa	float (7.9.6.1.2)	Parallel energy of the fast particle distribution [J]; Time-dependent
momentm_fast	vecflt_type (7.9.6.1.18)	Kinetic toroidal angular momentum of the fast ions [Nms]; Time-dependent; Vector (npsi)
current_dr	float (7.9.6.1.2)	Toroidal non-inductive current drive [A]; Time-dependent.
torque_jrxb	float (7.9.6.1.2)	Toroidal torque due to radial currents [N.m]; Time-dependent.

Type of: dist_global_param:state (3164)

7.9.6.1.183 dist_state_1d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	vecflt_type (7.9.6.1.18)	Flux surface averaged particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Vector (npsi)
dens_fast	vecflt_type (7.9.6.1.18)	Flux surface averaged fast particle density [1/m^3]; Time-dependent; Vector (npsi)
pres	vecflt_type (7.9.6.1.18)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Vector (npsi)
pres_fast	vecflt_type (7.9.6.1.18)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Vector (npsi)
pres_fast_pa	vecflt_type (7.9.6.1.18)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Vector (npsi)
momentm_fast	vecflt_type (7.9.6.1.18)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Vector (npsi)
current	vecflt_type (7.9.6.1.18)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Vector (npsi)
current_fast	vecflt_type (7.9.6.1.18)	Flux surface averaged toroidal current density of fast (non-thermal) particles (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Vector (npsi).
torque_jrxb	vecflt_type (7.9.6.1.18)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Vector (npsi)

Type of: dist_profile_values_1d:state (3167) I dist_profiles_1d:state (3170)

7.9.6.1.184 dist_state_2d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	matflt_type (7.9.6.1.15)	Particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
dens_fast	matflt_type (7.9.6.1.15)	Fast particle density [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
pres	matflt_type (7.9.6.1.15)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast	matflt_type (7.9.6.1.15)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast_pa	matflt_type (7.9.6.1.15)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Matrix (n_coord1, n_coord2)
momentm_fast	matflt_type (7.9.6.1.15)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)
current	matflt_type (7.9.6.1.15)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
current_fast	matflt_type (7.9.6.1.15)	Toroidal current density of fast (non-thermal) particles of the distribution species (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Matrix (n_coord1, n_coord2).
torque_jrxb	matflt_type (7.9.6.1.15)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)

Type of: dist_profile_values_2d:state (3168) I dist_profiles_2d:state (3172)

7.9.6.1.185 distri_vec

Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)

member	type	description
wave_id(:)	enum_instance (7.9.6.1.207)	List all waves affecting the distribution, as specified in waves/coherentwave/wave_id (see waves_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_antennas)
source_id(:)	enum_instance (7.9.6.1.207)	List all neutral beam injectors and reactions contributing to the source, as specified in distsource/source/source_id (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_injectors_and_reactions)
species	species_reference (7.9.6.1.429)	Defines the distribution function species represented in this element of distri_vec. Time-dependent
gyro_type	integer (7.9.6.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle position; 2 = given at the gyro centre of the particle position. Time-dependent
fast_filter	fast_thermal_separation_filter (7.9.6.1.219)	Description of how the fast and the thermal particle populations, used in global_param and profiles_1d, were separated.

member	type	description
global_param	dist_global_param (7.9.6.1.170)	Global parameters (in most cases volume integrated and surface averaged quanatities). Time-dependent
profiles_1d	dist_profiles_1d (7.9.6.1.176)	Flux surface averaged profiles.
profiles_2d	dist_profiles_2d (7.9.6.1.178)	2D profiles in the poloidal plane
dist_func	dist_func (7.9.6.1.166)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: distribution:distri_vec (3030)

7.9.6.1.186 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.6.1.215)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.6.1.215)	Particle source rate [1/s]; Time-dependent.
mag_axis	rz0D (7.9.6.1.376)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor. Time-dependent; Scalar

Type of: distsource_source:global_param (3184)

7.9.6.1.187 distsource_line_src_prof

1D profiles representation of a line source. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp = |grad psi| / (R 2 pi). Time-dependent; Vector (npsi)
R	vecflt_type (7.9.6.1.18)	Major radius at the line source. Time-dependent; Vector (npsi)
Z	vecflt_type (7.9.6.1.18)	Vertical position of the line source. Time-dependent; Vector (npsi)
theta	vecflt_type (7.9.6.1.18)	Polidal angle [rad]. Time-dependent; Vector (npsi)
theta_id	vecflt_type (7.9.6.1.18)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.6.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)
pitch	vecflt_type (7.9.6.1.18)	Pitch (i.e. v_parallel/v) of source particles. Time-dependent; Vector (npsi)
energy	vecflt_type (7.9.6.1.18)	Kinetic energy of source particles [eV]. Time-dependent; Vector (npsi)
ang_momentum	vecflt_type (7.9.6.1.18)	Kinetic angular momentum of a single source particles, R m v_phi [Nms]. Time-dependent; Vector (npsi)
src_rate	vecflt_type (7.9.6.1.18)	Source density of particles [1/m^3/s]. Time-dependent; Vector (npsi)

Type of: distsource_source:line_srcprof (3184)

7.9.6.1.188 distsource_profiles_1d

1D radial profiles

member	type	description
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.6.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)

member	type	description
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.6.1.216)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
trq_den	exp1D (7.9.6.1.216)	Flux surface averaged toroidal torque density [N/m^2]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.6.1.216)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (3184)

7.9.6.1.189 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.6.1.19)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.6.1.15)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.6.1.15)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.6.1.15)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.6.1.15)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.6.1.15)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g22	matflt_type (7.9.6.1.15)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.6.1.217)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.6.1.217)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (3184)

7.9.6.1.190 distsource_source

Source

member	type	description
source_id(:)	enum_instance (7.9.6.1.207)	List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for type: NBI or reaction names (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should either be taken from nbi(*)%nbi_unit(*)%name, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)
species	species_reference (7.9.6.1.429)	Defines the source species represented in this element of the vector /distsource/source. Time-dependent
gyro_type	integer (7.9.6.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle birth point; 2 =given at the gyro centre of the birth point.
global_param	distsource_global_param (7.9.6.1.186)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.6.1.188)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.6.1.189)	2D source profiles in terms of two phase space coordinates
line_srcprof(:)	distsource_line_src_prof (7.9.6.1.187)	1D profiles representation of a line source. Time-dependent
source_rate	source_rate (7.9.6.1.423)	Source density of particles in phase space (real space, velocity space, spin state).
markers	weighted_markers (7.9.6.1.523)	Source given as a set of markers (test particles) born per second.

member	type	description
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: distsource:source (3031)

7.9.6.1.191 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.6.1.18)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.6.1.18)	The vertical beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.6.1.18)	The horizontal beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)

Type of: beamletgroup:divergence (3079)

7.9.6.1.192 e_components

E-field representation in terms of the parallel and circularly polarised components

member	type	description
e_plus	complexgrid_scalar_cplx (7.9.6.1.109)	Left hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_minus	complexgrid_scalar_cplx (7.9.6.1.109)	Right hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_para	complexgrid_scalar_cplx (7.9.6.1.109)	Parallel (to the static magnetic field) component of electric field [V/m]. Time-dependent; Complexgrid_scalar
e_norm	complexgrid_scalar_cplx (7.9.6.1.109)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
e_binorm	complexgrid_scalar_cplx (7.9.6.1.109)	Magnitude of perpendicular (to the static magnetic field) wave electric field tangent to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
b_norm	complexgrid_scalar_cplx (7.9.6.1.109)	Magnitude of perpendicular (to the static magnetic field) wave magnetic field normal to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_binorm	complexgrid_scalar_cplx (7.9.6.1.109)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_para	complexgrid_scalar_cplx (7.9.6.1.109)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Complexgrid_scalar
k_perp	complexgrid_scalar_cplx (7.9.6.1.109)	Perpendicular wave number [1/m]; Time-dependent; Complexgrid_scalar

Type of: fullwave:e_components (3222)

7.9.6.1.193 ecemeasure

Measured values

member	type	description
harmonic	integer (7.9.6.1.3)	Harmonic detected by the ECE channels. Time-dependent.
position	rzphi1Dexp (7.9.6.1.384)	Position of the measurement. Time-dependent. Vector (nchannels)
te	exp1D (7.9.6.1.216)	Electron temperature [eV]. Time-dependent. Vector (nchannels)

Type of: ecediag:measure (3032)

7.9.6.1.194 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.6.1.18)	Frequency of the ECE channels. Vector (nchannels)
los	setup_line_exp (7.9.6.1.415)	Geometry of the line of sight.

Type of: ecediag:setup (3032)

7.9.6.1.195 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.6.1.197)	Electron density [1/m^3]; Time-dependent;
ni(:)	edge_fluid_scalar (7.9.6.1.196)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.6.1.200)	Electron velocity [m/s]; Time-dependent;
vi(:)	edge_fluid_vector (7.9.6.1.199)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.6.1.197)	Electron temperature [eV]; Time-dependent;
ti(:)	edge_fluid_scalar (7.9.6.1.196)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.6.1.200)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso(:)	edge_fluid_vector (7.9.6.1.199)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.6.1.197)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.6.1.200)	Electric current [A]; Time-dependent;
b(:)	complexgrid_vector (7.9.6.1.114)	Magnetic field vector [T]; Time-dependent;

Type of: edge:fluid (3033)

7.9.6.1.196 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value(:)	complexgrid_scalar (7.9.6.1.108)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.6.1.108)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.6.1.114)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.6.1.114)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.6.1.198)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.6.1.108)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (3189) I edge_fluid:ti (3189) I edge_fluid_vector:comps (3193) I edge_fluid_vector_simplestruct:comps (3194)

7.9.6.1.197 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value(:)	complexgrid_scalar (7.9.6.1.108)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.6.1.108)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
flux(:)	complexgrid_vector (7.9.6.1.114)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.6.1.114)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.6.1.198)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.6.1.108)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (3189) I edge_fluid:po (3189) I edge_fluid:te (3189)

7.9.6.1.198 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.6.1.115)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.6.1.115)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (3190) I edge_fluid_scalar_simplestruct:transpcoeff (3191)

7.9.6.1.199 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.6.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
align	vecint_type (7.9.6.1.19)	Alignment of vector components, numerical flag. Int vector (number of vector components);
alignid	vecstring_type (7.9.6.1.20)	Alignment of vector components, string description. String vector (number of vector components);
comps(:)	edge_fluid_scalar (7.9.6.1.196)	Components of the vector. Array of structures (number of vector components); Time-dependent;

Type of: edge_fluid:ti_aniso (3189) I edge_fluid:vi (3189)

7.9.6.1.200 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
griduid	integer (7.9.6.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.6.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
comps(:)	edge_fluid_scalar (7.9.6.1.196)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.6.1.19)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.6.1.20)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (3189) I edge_fluid:te_aniso (3189) I edge_fluid:ve (3189)

7.9.6.1.201 edge_kinetic

Kinetic quantities

member	type	description
f(:)	edge_kinetic_distribution (7.9.6.1.202)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (3033)

7.9.6.1.202 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value(:)	complexgrid_scalar (7.9.6.1.108)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue(:)	complexgrid_scalar (7.9.6.1.108)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes(:)	complexgrid_vector (7.9.6.1.114)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source(:)	complexgrid_scalar (7.9.6.1.108)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (3195)

7.9.6.1.203 edges

Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

member	type	description
edge_rzphi	rzphi1D (7.9.6.1.383)	Sequence of points describing a coil edge. Vector (npoints)

Type of: desc_coils:edges (3149)

7.9.6.1.204 edgespecies

Array of edge species.

member	type	description
nucindex	integer (7.9.6.1.3)	Index into list of nuclei; int
zmin	float (7.9.6.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.6.1.2)	Maximum Z of species charge state bundle
label	string (7.9.6.1.4)	String identifying the species (e.g. D0, D+, C0, C+, C+2, ...)

Type of: compositions_type:edgespecies (3114)

7.9.6.1.205 element_desc

Element description (equivalent to wall/compositions/nuclei, can link there using nucindex).

member	type	description
nucindex	integer (7.9.6.1.3)	Index into list of nuclei in wall/compositions/nuclei if the element is present there. Otherwise it is 0 and zn, amn and label have to be set.
label	string (7.9.6.1.4)	Element name/label
zn	float (7.9.6.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.6.1.2)	Mass of atom [amu]

Type of: wall:elements (3065)

7.9.6.1.206 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.6.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.6.1.4)	Name of the device
shot	integer (7.9.6.1.3)	Shot number
run	integer (7.9.6.1.3)	Run number

Type of: mdinfo:md_entry (3275)

7.9.6.1.207 enum_instance

Specifies a specific enumerated instance of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

member	type	description
type	identifier (7.9.6.1.254)	Identify the type of the object or process.
name	string (7.9.6.1.4)	The name of the object or process. Here the object should be an instans of the type specified in the field type.
index	integer (7.9.6.1.3)	Index the separating objects or processes with the same name.

Type of: coherentwave:wave_id (3094) I distri_vec:source_id (3179) I distri_vec:wave_id (3179) I distsource_source:source_id (3184)

7.9.6.1.208 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.6.1.211)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.6.1.210)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.6.1.210)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.6.1.211)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.6.1.211)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.6.1.210)	Plasma current [A];
isoflux	isoflux (7.9.6.1.260)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.6.1.211)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.6.1.278)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.6.1.211)	MSE angles [rad]
ne	eqmes1D (7.9.6.1.211)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.6.1.211)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.6.1.211)	Total pressure [Pa]
q	q (7.9.6.1.361)	Safety factor
xpts	xpts (7.9.6.1.526)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (3035)

7.9.6.1.209 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.6.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.6.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary(:)	rz1Dexp (7.9.6.1.379)	RZ description of the plasma boundary; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, boundary must be allocated to size 1. Time-dependent;
geom_axis	rz0D (7.9.6.1.376)	position of the geometric axis [m]; Time-dependent; Scalar
a_minor	float (7.9.6.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.6.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar

member	type	description
elong_upper	float (7.9.6.1.2)	Elongation upper of the plasma boundary; Time-dependent; Scalar
elong_lower	float (7.9.6.1.2)	Elongation lower of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.6.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.6.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts(:)	rz1Dexp (7.9.6.1.379)	Position of the Xpoints, first is the active xpoint if diverted [m]; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, xpts must be allocated to size 1. Time-dependent;
left_low_st	rz0D (7.9.6.1.376)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.6.1.376)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.6.1.376)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.6.1.376)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.6.1.376)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar
ang_lcms_upo	float (7.9.6.1.2)	Angle at the LMCS X point upper outer; Time-dependent; Scalar
ang_lcms_upi	float (7.9.6.1.2)	Angle at the LMCS X point upper inner; Time-dependent; Scalar
ang_lcms_lwo	float (7.9.6.1.2)	Angle at the LMCS X point lower outer; Time-dependent; Scalar
ang_lcms_lwi	float (7.9.6.1.2)	Angle at the LMCS X point lower inner; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (3035) I scenario:eqgeometry (3058)

7.9.6.1.210 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.6.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.6.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.6.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.6.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.6.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.6.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.6.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.6.1.2)	chiˆ2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (3202) I eqconstraint:diamagflux (3202) I eqconstraint:i_plasma (3202)

7.9.6.1.211 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.6.1.18)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.6.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.6.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.6.1.19)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.6.1.18)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.6.1.18)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.6.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.6.1.18)	chiˆ2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (3202) I eqconstraint:faraday (3202) I eqconstraint:flux (3202) I eqconstraint:jsurf (3202) I eqconstraint:mse (3202) I eqconstraint:ne (3202) I eqconstraint:pfcurrent (3202) I eqconstraint:pressure (3202) I magnet_iron:mr (3272) I magnet_iron:mz (3272)

7.9.6.1.212 equatorial_plane

Description of the equitorial plane or any other omnigeuous surfaces. Time-dependent

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
z	vecflt_type (7.9.6.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
s	vecflt_type (7.9.6.1.18)	Distance along the poloidal projection of the equitorial plane (m). Here s=0 should be at the magnetic axis, s>0 on the low field side and s<0 on the high field side. For example, in up-down symmetric fields s=R-R0, where R is the major radius and R0 the major radius at the magnetic axis. Time-dependent; Vector(n_equatorial_grid)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0 is the reference magnetic field, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (n_equitorial_grid)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (n_equitorial_grid)
b_mod	vecflt_type (7.9.6.1.18)	The modulous of the magnetic field along the equitorial plane, or more generally of the omnigeuous surfaces [T]. Time-dependent; Vector (n_equatorial_grid)

Type of: dist_distrivec_distfunc_fexp_param:equatorial (3158) I parameters:equatorial (3323)

7.9.6.1.213 equilibrium_profiles2d_grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.6.1.18)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.6.1.18)	Second dimension values; Time-dependent; Vector (ndim2)
connect	matint_type (7.9.6.1.16)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: equilibrium_profiles_2d:grid (3208)

7.9.6.1.214 equilibrium_profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	vecstring_type (7.9.6.1.20)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	equilibrium_profiles2d_grid (7.9.6.1.213)	definition of the 2D grid
r	matflt_type (7.9.6.1.15)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.6.1.15)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.6.1.15)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.6.1.15)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
phi	matflt_type (7.9.6.1.15)	Toroidal flux [Wb]. Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.6.1.15)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.6.1.15)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.6.1.15)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.6.1.15)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.6.1.15)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.6.1.15)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.6.1.15)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.6.1.15)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.6.1.15)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.6.1.15)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (3035)

7.9.6.1.215 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.6.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.6.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.6.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (3069) I antenna_ic:frequency (3070) I antenna_ic:power (3070) I antenna_lh:power (3071) I distsource_global_param:src_pow (3180) I distsource_global_param:src_rate (3180) I fusiondiag_ct_chords:energy (3230) I fusiondiag_spec1d:energy (3236) I fusiondiag_spec2d:energy (3237) I magdiag:diamagener (3044) I magdiag:diamagflux (3044) I magdiag:ip (3044) I nbi_unit:inj_eng_unit (3299) I nbi_unit:pow_unit (3299) I solcurdiag_sol_current:measure (3413) I straps:current (3428) I straps:phase (3428) I toroidfield:bvac_r (3062) I toroidfield:current (3062)

7.9.6.1.216 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.6.1.18)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.6.1.18)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bpol_probes:measure (3087) I coil:coilcurrent (3095) I coil:coilvoltage (3095) I current:spectrum (3144) I cxmeasure:ti (3145) I cxmeasure:vpol (3145) I cxmeasure:vtor (3145) I distsource_profiles_1d:pow_den (3182) I distsource_profiles_1d:src_rate (3182) I distsource_profiles_1d:trq_den (3182) I ecemeasure:te (3187) I flux_loops:measure (3217) I fusiondiag_ct_chords:measure (3230) I fusiondiag_ct_energy:energy (3231) I fusiondiag_ct_energy:measure (3231) I fusiondiag_detect_ct_energy:energy (3232) I fusiondiag_detect_ct_energy:measure (3232) I fusiondiag_emissivity1d:r (3233) I fusiondiag_emissivity1d:z (3233) I fusiondiag_spec1d:measure (3236) I halpha_setup:solidangle (3243) I halphadiag:intensity (3037) I lang_derived:measure (3256) I lang_measure:area (3257) I lang_measure:measure (3257) I lineintegraldiag:measure (3267) I lithmeasure:ne (3268) I magnetise:mr (3273) I magnetise:mz (3273) I modules:amplitude (3288) I modules:phase (3288) I msediag_radia_chord:totradiance (3292) I msediag_radiance:wavelength (3293) I nbi_unit:beamcurrfrac (3299) I nbi_unit:beampowrfrac (3299) I pfcoils:coilcurrent (3334) I pfcoils:coilvoltage (3334) I pfpassive_current:poloidal (3339) I pfpassive_current:toroidal (3339) I pfsupplies:current (3340) I pfsupplies:voltage (3340) I polarimetry:measure (3346) I rfameasure:ti (3367) I rzphi1Dexp:phi (3378) I rzphi1Dexp:r (3378) I rzphi1Dexp:z (3378) I tsmeasure:ne (3479) I tsmeasure:te (3479)

7.9.6.1.217 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.6.1.15)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.6.1.15)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.6.1.15)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (3183) I distsource_profiles_2d:src_rate (3183) I fusiondiag_emissivity2d:r (3234) I fusiondiag_emissivity2d:z (3234) I fusiondiag_spec2d:measure (3237)

7.9.6.1.218 f_expansion

Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

member	type	description
grid	complexgrid (7.9.6.1.103)	Grid for storing the distribution function. Time-dependent; Complexgrid
values	complexgrid_scalar (7.9.6.1.108)	Values of the distribution function [m^-3 (m/s)^-3]. Time-dependent; Complexgrid_scalar.
parameters	dist_distrivec_distfunc_fexp_param (7.9.6.1.164)	Parameters used to defined the grid coordinates. Time-dependent

Type of: dist_func:f_expansion (3160)

7.9.6.1.219 fast_thermal_separation_filter

Description of how the fast and the thermal particle populations were separated.

member	type	description
method	identifier (7.9.6.1.254)	Identifier describing the method used to separate the fast and thermal particle population (see fast_thermal_separation_filter_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes)
energy_sep	vecflt_type (7.9.6.1.18)	Energy at which the fast and thermal particle populations were separated [eV]. Vector (nrho). Time-dependent.

Type of: corefast_values:filter (3120) I distri_vec:fast_filter (3179)

7.9.6.1.220 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.6.1.15)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.6.1.15)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (3153)

7.9.6.1.221 flat_polygon

Polygon lying on a flat surface on a 3D cartesian space (x,y,z). The coordinate system on the surface is defined by the origin, ”origin”, and two basis vectors in (x,y,z) space, ”basis1” and ”basis2”. The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2, i.e. the j:th point is described by ”origin+basis1*coord1(j)+basis2*coord2(j)”. As an example, a rectangle centered at the origin, with two of the corners given by ”origin+basis1” and ”origin+basis2” can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1]. The normal vector of the surface is defined to be in the direction ”basis1 x basis2”.

member	type	description
origin	xyz0D (7.9.6.1.527)	Origin of the surface coordinate system.
basis1	xyz0D (7.9.6.1.527)	First basis vector on the surface.
basis2	xyz0D (7.9.6.1.527)	First basis vector on the surface.
coord1	vecflt_type (7.9.6.1.18)	First coordinate of the polygon points, conjugate to basis1.
coord2	vecflt_type (7.9.6.1.18)	Second coordinate of the polygon points, conjugate to basis2.

Type of: nbi_nbi_unit_wall:collimator (3297)

7.9.6.1.222 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
position	rz1D (7.9.6.1.377)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.6.1.15)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: equilibrium:flush (3035)

7.9.6.1.223 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.6.1.413)	diagnostic setup information
measure	exp1D (7.9.6.1.216)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (3044)

7.9.6.1.224 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.6.1.18)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.6.1.18)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (3121)

7.9.6.1.225 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.6.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Array2D (nrho,nzimp)
flux_interp	matflt_type (7.9.6.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array2D (nrho,nzimp)

Type of: impurity_type:flux (3251)

7.9.6.1.226 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.6.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.6.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (3122)

7.9.6.1.227 focussing

Describes how the beam is focussed.

member	type	description
focal_len_hz	float (7.9.6.1.2)	Horizontal focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum horizontal width [m]. Scalar
focal_len_vc	float (7.9.6.1.2)	Vertical focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum vertical width [m]. Scalar
width_min_hz	float (7.9.6.1.2)	The horizontal width of the beamlet-group at the at the horizontal focal point [m]. Scalar
width_min_vc	float (7.9.6.1.2)	The vertical width of the beamlet-group at the at the vertical focal point [m]. Scalar

Type of: beamletgroup:focussing (3079)

7.9.6.1.228 fullwave

Solution by full wave code

member	type	description
grid	complexgrid (7.9.6.1.103)	Grid for storing the components of the wave field; Time-dependent
e_components	e_components (7.9.6.1.192)	E-field representation in terms of the parallel and circularly polarised components
pol_decomp	pol_decomp (7.9.6.1.351)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]
local	local (7.9.6.1.276)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

Type of: coherentwave:fullwave (3094)

7.9.6.1.229 fusiondiag_colli_3d

Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.6.1.4)	Name tag for the chord. String.
voxels(:)	fusiondiag_voxels (7.9.6.1.244)	Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

Type of: fusiondiag_collimator:colli_3d (3226)

7.9.6.1.230 fusiondiag_colli_circ

Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.6.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.6.1.414)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_circ (7.9.6.1.233)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_circ (3226)

7.9.6.1.231 fusiondiag_colli_poly

Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.6.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.6.1.414)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_poly (7.9.6.1.234)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_poly (3226)

7.9.6.1.232 fusiondiag_collimator

Collimator array.

member	type	description
colli_circ(:)	fusiondiag_colli_circ (7.9.6.1.230)	Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.
colli_poly(:)	fusiondiag_colli_poly (7.9.6.1.231)	Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.
colli_3d(:)	fusiondiag_colli_3d (7.9.6.1.229)	Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

Type of: fusiondiag_fus_product:collimator (3235)

7.9.6.1.233 fusiondiag_colliunit_circ

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
radius	vecflt_type (7.9.6.1.18)	Radius of cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim)
centre	rzphi1D (7.9.6.1.383)	Position of cross section centre; Typically dim=2 for just entry and exit of collimator; Vector (dim)

Type of: fusiondiag_colli_circ:colliunit (3224)

7.9.6.1.234 fusiondiag_colliunit_poly

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
dimension	float (7.9.6.1.2)	Number of edges of cross section.
nodes	rzphi2D (7.9.6.1.386)	Coordinates of nodes defining each cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim,nnodes)

Type of: fusiondiag_colli_poly:colliunit (3225)

7.9.6.1.235 fusiondiag_counts

Integrated emissivity [s^-1].

member	type	description
units	string (7.9.6.1.4)	Energy units (ev, tof - time of flight)
ct_chords(:)	fusiondiag_ct_chords (7.9.6.1.236)	Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1]. Time-dependent
ct_energy(:)	fusiondiag_ct_energy (7.9.6.1.237)	Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1]. Time-dependent
detect_ct(:)	fusiondiag_detect_ct_energy (7.9.6.1.238)	Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1]. Time-dependent

Type of: fusiondiag_fus_product:counts (3235)

7.9.6.1.236 fusiondiag_ct_chords

Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].

member	type	description
name	vecstring_type (7.9.6.1.20)	Name tag for each chord. Vector (nchords)
energy	exp0D (7.9.6.1.215)	Energy like variable span. Use mininum energy when no energy spectra is resolved.
measure	exp1D (7.9.6.1.216)	Measured counts. Vector (nchords)

Type of: fusiondiag_counts:ct_chords (3229)

7.9.6.1.237 fusiondiag_ct_energy

Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].

member	type	description
energy	exp1D (7.9.6.1.216)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.6.1.216)	Measured counts spectra. Vector (nenergy)

Type of: fusiondiag_counts:ct_energy (3229)

7.9.6.1.238 fusiondiag_detect_ct_energy

Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

member	type	description
energy	exp1D (7.9.6.1.216)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.6.1.216)	Measured counts spectra. Vector (nenergy)
diag_func	diag_func (7.9.6.1.160)	Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

Type of: fusiondiag_counts:detect_ct (3229)

7.9.6.1.239 fusiondiag_emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.6.1.4)	Energy units (ev, tof - time of flight)
r	exp1D (7.9.6.1.216)	horizontal grid. Vector (dim)
z	exp1D (7.9.6.1.216)	vertical grid. Vector (dim)
spec1d(:)	fusiondiag_spec1d (7.9.6.1.242)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity1d (3235)

7.9.6.1.240 fusiondiag_emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.6.1.4)	Energy units (ev, tof - time of flight)
r	exp2D (7.9.6.1.217)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.6.1.217)	vertical grid. Vector (dim1,dim2)
spec2d(:)	fusiondiag_spec2d (7.9.6.1.243)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity2d (3235)

7.9.6.1.241 fusiondiag_fus_product

Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.

member	type	description
product	string (7.9.6.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.6.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
collimator	fusiondiag_collimator (7.9.6.1.232)	Collimator array.
counts	fusiondiag_counts (7.9.6.1.235)	Integrated emissivity [s^-1].
emissivity1d	fusiondiag_emissivity1d (7.9.6.1.239)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	fusiondiag_emissivity2d (7.9.6.1.240)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: fusiondiag:fus_product (3036)

7.9.6.1.242 fusiondiag_spec1d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.6.1.215)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp1D (7.9.6.1.216)	reconstruction. Vector (dim)

Type of: fusiondiag_emissivity1d:spec1d (3233)

7.9.6.1.243 fusiondiag_spec2d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.6.1.215)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp2D (7.9.6.1.217)	reconstruction. Vector (dim1,dim2)

Type of: fusiondiag_emissivity2d:spec2d (3234)

7.9.6.1.244 fusiondiag_voxels

Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

member	type	description
centre	rzphi0D (7.9.6.1.382)	Centre of voxel; used also as origin of direction to detector
direction	rzphi0D (7.9.6.1.382)	Second point defining the direction to detector.
volume	float (7.9.6.1.2)	Voxel Volume
solid_angle	float (7.9.6.1.2)	effective solid angle (divided by 4pi) of the voxel towards detector.

Type of: fusiondiag_colli_3d:voxels (3223)

7.9.6.1.245 geom

Geometry between components

member	type	description
dr_bb_sh_ib	float (7.9.6.1.2)	Gap between the breeding blanket module and the shield (inboard) in the equatorial section [m]; Scalar
dr_sh_vv_ib	float (7.9.6.1.2)	Gap between the shield and the vacuum vessel (inboard) in the equatorial section [m]; Scalar
dr_bb_sh_ob	float (7.9.6.1.2)	Gap between the breeding blanket module and the shield (outboard) in the equatorial section [m]; Scalar
dr_sh_vv_ob	float (7.9.6.1.2)	Gap between the shield and the vacuum vessel (outboard) in the equatorial section [m]; Scalar
dr_bb__sh_ib	float (7.9.6.1.2)	Overal radial dimension of the ensemble BB plus shield (inboard) [m]; Scalar
dr_bb__sh_ob	float (7.9.6.1.2)	Overal radial dimension of the ensemble BB plus shield (outboard) [m]; Scalar
delta_int	float (7.9.6.1.2)	Distance between the inner plasma surface and the plasma facing side of the superconducting winding of the toroidal field coil [m]; Scalar

Type of: bb_shield:geom (3020)

7.9.6.1.246 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.6.1.19)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.6.1.380)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (3151)

7.9.6.1.247 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.6.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.6.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.6.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.6.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.6.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.6.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.6.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.6.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.6.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.6.1.277)	Magnetic axis values
q_95	float (7.9.6.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.6.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.6.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.6.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (3035)

7.9.6.1.248 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.6.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.6.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.6.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.6.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.6.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.6.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.6.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.6.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.6.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar

Type of: coreprof:globalparam (3026)

7.9.6.1.249 halpha_setup

setup for the lines of sight of the line integrated measurement

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of the channel. Array of strings (nlos).
pivot_point	rzphi1D (7.9.6.1.383)	Pivot point of l.o.s. it can be either the collimator position or entry point on the vessel. Vector (nlos)
horchordang	vecflt_type (7.9.6.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Vector (nlos)
verchordang	vecflt_type (7.9.6.1.18)	Angle of l.o.s. with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Vector (npos)
second_point	rzphi1D (7.9.6.1.383)	Second point defining the l.o.s. together with the pivot_point. Vector (nlos)
solidangle	exp1D (7.9.6.1.216)	Solid angle of the detector; [sr] Vector (nlos)

Type of: halphadiag:setup (3037)

7.9.6.1.250 hcll

Data specific to HCLL blanket concept

member	type	description
mat_lim	mat_lim (7.9.6.1.280)	Material limits specific to HCLL breeding blanket
hcll_bb	hcll_bb (7.9.6.1.251)	HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

Type of: bb_shield:hcll (3020)

7.9.6.1.251 hcll_bb

HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

member	type	description
bb_lifetime	float (7.9.6.1.2)	Breeding blanket lifetime [years]; Scalar
he_inl_t	float (7.9.6.1.2)	Inlet temperature (to the bb module) [K]; Scalar
he_fr	float (7.9.6.1.2)	Coolant mass flow rate in "the" reference bb module (or in each module) [Kg/s];
he_inl_p	float (7.9.6.1.2)	Helium inlet pressure [Pa]; Scalar
loca_des_p	float (7.9.6.1.2)	Box design pressure (coincident He circuit design pressure) [Pa]; Scalar
he_dp	float (7.9.6.1.2)	Coolant pressure drops in the breeding blankets [Pa]; Scalar
lipb_dp	float (7.9.6.1.2)	Pb-15.7Li pressure drops in the bb [Pa]; Scalar
react	react (7.9.6.1.363)	In the reactor region
inboard	hcllbb_specs (7.9.6.1.252)	Inboard
outboard	hcllbb_specs (7.9.6.1.252)	Outboard

Type of: hcll:hcll_bb (3244)

7.9.6.1.252 hcllbb_specs

Inboard

member	type	description
mass	vecflt_type (7.9.6.1.18)	Mass of inboard or outboard breeding blanket modules (located at equatorial midplane if only one considered) [Kg]; Vector(nmodules)
dr	vecflt_type (7.9.6.1.18)	Inboard or outboard breeding blanket radial build giving the thickness of each layer [m]; Vector(nlayers)
mat	vecflt_type (7.9.6.1.18)	Inboard or outboard breeding blanket materials; Vector(nlayers)
composition	matflt_type (7.9.6.1.15)	Inboard or outboard breeding blanket radial build giving for each layer (1: First Wall protective layer, 2: First Wall, 3 : breeder zone, 4 : back plates, 5 : manifolds), the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Matrix(nlayers(=5), max_nmaterials)
mod_geom	bb_geometry (7.9.6.1.83)	Geometrical parameters of "the" reference region blanket module
mod_neutr	mode_neutr (7.9.6.1.290)	Neutrons "effects"
mod_therm	mode_therm (7.9.6.1.292)	Thermical parameters
mod_th_hyd	mode_th_hyd (7.9.6.1.291)	hydrodynamics parameters
mod_mech	mode_mech (7.9.6.1.289)	Mechanical parameters
mod_lipb	mode_lipb (7.9.6.1.288)	Pb-15.7Li "effects"
mod_tritium	mode_tritium (7.9.6.1.293)	Tritium parameters

Type of: hcll_bb:inboard (3245) I hcll_bb:outboard (3245)

7.9.6.1.253 holes

Structure to describe the placing and properties of the holes

member	type	description
n_holes	integer (7.9.6.1.3)	Number of holes on each wall;
coordinates	coordinates (7.9.6.1.123)	Poloidal and Toroidal coordinates of the center of each hole;
width	width (7.9.6.1.525)	Angular width of each in the poloidal and toroidal direction;
eta	vecflt_type (7.9.6.1.18)	Resistivity of each hole [ohm.m]; Vector (n_holes)

Type of: mhd_res_wall2d:holes (3279)

7.9.6.1.254 identifier

Standard type for identifiers. The three fields: id, flag and description are all representations of the same information. Associated with each application of this identifier-type, there should be a translation table defining the three fields for all objects to be identified.

member	type	description
id	string (7.9.6.1.4)	Short string identifier
flag	integer (7.9.6.1.3)	Integer identifier
description	string (7.9.6.1.4)	Verbose description of identifier

Type of: amns_processType:quality (3068) I composition_neutralscomp:type (3113) I compositions_type:signature (3114) I coredelta_values:deltaid (3119) I corefast_values:fastid (3120) I coreneutrals_atomlist:ionimptype (3135) I coresource_values:sourceid (3139) I coretransp_values:transportid (3143) I dist_sources_reference:type (3175) I enum_instance:type (3201) I fast_thermal_separation_filter:method (3213) I mhd_ideal_wall2d:walltype (3276) I mhd_res_wall2d:walltype (3279) I msediag_polarization:type (3291) I msediag_stokes:type (3296) I pellet_shape:type (3331) I reacprodType:role (3356) I reflectometry_antennas:type (3362) I reflectometry_radfield:type (3363) I simp_apert:type (3412) I species_reference:type (3423) I table:quality (3432) I temporary_nt_0dc:identifier (3436) I temporary_nt_0di:identifier (3437) I temporary_nt_0dr:identifier (3438) I temporary_nt_0ds:identifier (3439) I temporary_nt_1dc:identifier (3440) I temporary_nt_1di:identifier (3441) I temporary_nt_1dr:identifier (3442) I temporary_nt_1ds:identifier (3443) I temporary_nt_2dc:identifier (3444) I temporary_nt_2di:identifier (3445) I temporary_nt_2dr:identifier (3446) I temporary_nt_3dc:identifier (3447) I temporary_nt_3di:identifier (3448) I temporary_nt_3dr:identifier (3449) I temporary_nt_4dr:identifier (3450) I temporary_t_0dc:identifier (3452) I temporary_t_0di:identifier (3453) I temporary_t_0dr:identifier (3454) I temporary_t_0ds:identifier (3455) I temporary_t_1dc:identifier (3456) I temporary_t_1di:identifier (3457) I temporary_t_1dr:identifier (3458) I temporary_t_2dc:identifier (3459) I temporary_t_2di:identifier (3460) I temporary_t_2dr:identifier (3461) I temporary_t_3dc:identifier (3462) I temporary_t_3di:identifier (3463) I temporary_t_3dr:identifier (3464) I temporary_t_4dr:identifier (3465) I trap_type:trap_id (3477) I wall2d:wall_id (3493) I wall3d:wall_id (3495) I wall_limiter:limiter_id (3498) I wall_vessel:vessel_id (3503) I weighted_markers:variable_ids (3517)

7.9.6.1.255 impcoeff

Array over charge states for this particular impurity.

member	type	description
chargestate(:)	coefficients_neutrals (7.9.6.1.99)	Time-dependent

Type of: coreneutrals:impcoeff (3025)

7.9.6.1.256 impurities

Array of impurities.

member	type	description
nucindex	integer (7.9.6.1.3)	Index into list of nuclei; int
i_ion	integer (7.9.6.1.3)	Index of the impurity species in the ions array of structures. Vector (nimp)
nzimp	integer (7.9.6.1.3)	Number of charge states (or bundles) considered for this impurity species.
zmin	vecflt_type (7.9.6.1.18)	Minimum Z of impurity ionisation state bundle. Vector (nzimp)
zmax	vecflt_type (7.9.6.1.18)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Vector (nzimp)
label	vecstring_type (7.9.6.1.20)	String array (nzimp) identifying impurities (e.g. C+, C+2 , C+3, C+4, C+5, C+6, ...)

Type of: compositions_type:impurities (3114)

7.9.6.1.257 impurity_type

Array(nimp). Time-dependent

member	type	description

member	type	description
z	matflt_type (7.9.6.1.15)	Impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
zsq	matflt_type (7.9.6.1.15)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
nz	matflt_type (7.9.6.1.15)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
tz	matflt_type (7.9.6.1.15)	Temperature of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
source_term	sourceimp (7.9.6.1.426)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.6.1.91)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.6.1.147)	Transport coefficients for each charge state
flux	fluximp (7.9.6.1.225)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	matflt_type (7.9.6.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Array2D (nrho,nzimp)
diagnostic	coreimpurediag_type (7.9.6.1.138)	NO DOCS

Type of: coreimpur:impurity (3024)

7.9.6.1.258 inj_spec

Injected species

member	type	description
amn	float (7.9.6.1.2)	Atomic mass number
zn	float (7.9.6.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (3299)

7.9.6.1.259 ions

Array of main plasma ions.

member	type	description
nucindex	integer (7.9.6.1.3)	Index into list of nuclei; int
zion	float (7.9.6.1.2)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	integer (7.9.6.1.3)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	string (7.9.6.1.4)	String identifying ion (e.g. H+, D+, T+, He+2, C+, ...)

Type of: compositions_type:ions (3114)

7.9.6.1.260 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.6.1.377)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.6.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.6.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.6.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.6.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.6.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (3202)

7.9.6.1.261 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.6.1.18)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (3353)

7.9.6.1.262 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.6.1.20)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.6.1.384)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.6.1.216)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (3041) I langmuirdiag:ne (3041) I langmuirdiag:te (3041)

7.9.6.1.263 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.6.1.20)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.6.1.216)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.6.1.384)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.6.1.216)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (3041) I langmuirdiag:jsat (3041) I langmuirdiag:potential (3041)

7.9.6.1.264 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.6.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline [rad], Tan(alpha)=-k_z/k_R; Time-dependent
beta	float (7.9.6.1.2)	Toroidal launching angle between the poloidal plane and the nominal beam centerline [rad], Sin(beta)=k_phi; Time-dependent

Type of: antenna_ec:launchangles (3069)

7.9.6.1.265 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.6.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.6.1.15)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.6.1.18)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (3425)

7.9.6.1.266 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.6.1.19)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.6.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.6.1.15)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.6.1.15)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.6.1.7)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (3425)

7.9.6.1.267 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.6.1.269)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.6.1.268)	Phase ellipse characteristics of the spot

Type of: launchs:beam (3042)

7.9.6.1.268 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.6.1.15)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.6.1.18)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (3261)

7.9.6.1.269 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.6.1.15)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.6.1.18)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (3261)

7.9.6.1.270 launchsignal

member	type	description
time_launch	vecflt_type (7.9.6.1.18)	Time stamp for particular event e.g. ramp of frequency sweep (but it should not be needed since it should be tied to the cpo time !); Time-dependent
freq	vecflt_type (7.9.6.1.18)	Frequency of the injected waves (should not be needed since it is already used in the injected signal !), typical data stored experimentally; Time-dependent
amplitude	vecflt_type (7.9.6.1.18)	Amplitude of the injected waves (essential if using gaussian, already encoded in the Electric field pattern), typical data stored experimentally; Time-dependent
phase	vecflt_type (7.9.6.1.18)	Phase of the sinusoidal (e.g. voltage) signal injected in the antenna, typical data stored experimentally; Time-dependent

Type of: reflectometry_antennas:launchsignal (3362)

7.9.6.1.271 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.6.1.4)	Name or description of the limiter_unit
closed	string (7.9.6.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.6.1.377)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.6.1.2)	Wall resistivity [ohm.m]; Scalar
delta	float (7.9.6.1.2)	Wall thickness [m] (Optional if a closed facing component is given but useful for simpler closed contour limiter); Time-dependent; Scalar
permeability	float (7.9.6.1.2)	Vessel relative permeability; Scalar

Type of: wall_limiter:limiter_unit (3498)

7.9.6.1.272 limits

Limits

member	type	description
fw_dpa	float (7.9.6.1.2)	max allowable displacement per atom on FW [dpa]; Scalar.
he_appm	float (7.9.6.1.2)	He concentration limit in re-welding areas [appm]; Scalar
ins_dose	float (7.9.6.1.2)	Integral radiation dose in insulator (Epoxy) [Gy] [J*Kg^-1]; Scalar
fn_flu	float (7.9.6.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar
dpa_cu	float (7.9.6.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
wp_nh	float (7.9.6.1.2)	Peak nuclear eating in winding pack [W*m^-3]; Scalar

Type of: bb_shield:limits (3020)

7.9.6.1.273 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.6.1.154)	Generic information on a data item
expression	string (7.9.6.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.6.1.414)	Geometric description of the lines of sight
measure	exp1D (7.9.6.1.216)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.6.1.98)	Code parameters
time	float (7.9.6.1.2)	Time [s]; Time-dependent; Scalar

7.9.6.1.274 lithmeasure

Measured values

member	type	description
ne	exp1D (7.9.6.1.216)	Electron density [m^-3]. Vector (nchannels)

Type of: lithiumdiag:measure (3043)

7.9.6.1.275 lithsetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.6.1.383)	Position of the measurement. Vector (nchannels)

Type of: lithiumdiag:setup (3043)

7.9.6.1.276 local

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

member	type	description
e_plus	array3dflt_type (7.9.6.1.7)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.6.1.7)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.6.1.7)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.6.1.7)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.6.1.8)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.6.1.7)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.6.1.7)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.6.1.7)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.6.1.7)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.6.1.7)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.6.1.7)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.6.1.7)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.6.1.7)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.6.1.7)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.6.1.7)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.6.1.7)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
k_perp	array3dflt_type (7.9.6.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (3222)

7.9.6.1.277 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.6.1.376)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.6.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.6.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (3241)

7.9.6.1.278 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.6.1.211)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.6.1.211)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (3202)

7.9.6.1.279 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.6.1.216)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.6.1.216)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (3040)

7.9.6.1.280 mat_lim

Material limits specific to HCLL breeding blanket

member	type	description
cool_t_lim	float (7.9.6.1.2)	Min, max allowable He temperature [K];
steel_t_lim	float (7.9.6.1.2)	Min, max allowable steel temperature [K];
lipb_t_lim	float (7.9.6.1.2)	Min, max allowable LiPb temperature [K];

Type of: hcll:mat_lim (3244)

7.9.6.1.281 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.6.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.6.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.6.1.206)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.6.1.282 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	identifier (7.9.6.1.254)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
position	rz1D (7.9.6.1.377)	RZ description of the wall;

Type of: wall2d_mhd:ideal_wall (3494)

7.9.6.1.283 mhd_mode

MHD modes in the confined plasma

member	type	description
modenum	integer (7.9.6.1.3)	Toroidal mode number of the MHD mode; Scalar; Time-dependent.
growthrate	float (7.9.6.1.2)	Linear growthrate of the mode [Hz]; Scalar; Time-dependent.
frequency	float (7.9.6.1.2)	Frequency of the mode [Hz]; Scalar; Time-dependent.
plasma	mhd_plasma (7.9.6.1.284)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.6.1.286)	External modes

Type of: mhd:n (3045)

7.9.6.1.284 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.6.1.18)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
m	matflt_type (7.9.6.1.15)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
disp_perp	matcplx_type (7.9.6.1.14)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)

member	type	description
disp_par	matcplx_type (7.9.6.1.14)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)
tau_alfven	vecflt_type (7.9.6.1.18)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_res	vecflt_type (7.9.6.1.18)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.6.1.122)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.6.1.287)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.6.1.287)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.6.1.287)	Perturbed velocity (in Fourier space) [m/s]
p_pert	matcplx_type (7.9.6.1.14)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 2D (npsi,nm)
rho_mass_per	matcplx_type (7.9.6.1.14)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 2D (npsi,nm)
temp_per	matcplx_type (7.9.6.1.14)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_mode:plasma (3277)

7.9.6.1.285 mhd_res_wall2d

Resistive wall

member	type	description
walltype	identifier (7.9.6.1.254)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
delta	float (7.9.6.1.2)	Wall thickness [m]; Scalar
eta	float (7.9.6.1.2)	Wall resistivity [ohm.m]; Scalar
npoloidal	integer (7.9.6.1.3)	Number of poloidal coordinates for each wall (dimension of R and Z);
position	rz1D (7.9.6.1.377)	RZ description of the wall; wall coordinates are defined at a middle line (line passing through the middle of the real wall as defined by thickness parameter delta)
holes	holes (7.9.6.1.253)	Structure to describe the placing and properties of the holes

Type of: wall2d_mhd:res_wall (3494)

7.9.6.1.286 mhd_vacuum

External modes

member	type	description
m	array3dflt_type (7.9.6.1.7)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
coord_sys	coord_sys (7.9.6.1.122)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.6.1.287)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.6.1.287)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd_mode:vacuum (3277)

7.9.6.1.287 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	matcplx_type (7.9.6.1.14)	Fourier components of first coordinate; Time-dependent; Array 2D (npsi,nm)
coord2	matcplx_type (7.9.6.1.14)	Fourier components of second coordinate; Time-dependent; Array 2D (npsi,nm)
coord3	matcplx_type (7.9.6.1.14)	Fourier components of third coordinate; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_plasma:a_pert (3278) I mhd_plasma:b_pert (3278) I mhd_plasma:v_pert (3278) I mhd_vacuum:a_pert (3280) I mhd_vacuum:b_pert (3280)

7.9.6.1.288 mode_lipb

Pb-15.7Li ”effects”

member	type	description
lp_rec_day	float (7.9.6.1.2)	nb of Pb-15.7Li recirculation per day [Pa]; Scalar
bb_lp_fr	vecflt_type (7.9.6.1.18)	Pb-15.7Li mass flow rate in ”the” bb module (or in each bb module) [Kg/s]; Vector(nmodules)

member	type	description
lp_inl_p	float (7.9.6.1.2)	Pb-15.7Li inlet pressure [Pa]; Scalar
bu_dp_lp	float (7.9.6.1.2)	Pb-15.7Li pressure drops in the breeder unit [Pa]; Scalar
man_dp_lp	float (7.9.6.1.2)	Pb-15.7Li pressure drops in the bb manifolds [Pa]; Scalar
tot_dp_lp	float (7.9.6.1.2)	Pb-15.7Li total pressure drops [Pa]; Scalar
bu_lp_ave_t	float (7.9.6.1.2)	Pb-15.7Li average temperature in a breeder unit [K]; Scalar
bu_lp_max_t	float (7.9.6.1.2)	Pb-15.7Li max temperature in a breeder unit [K]; Scalar

Type of: hcllbb_specs:mod_lipb (3246)

7.9.6.1.289 mode_mech

Mechanical parameters

member	type	description
fw_min_ts_mg	float (7.9.6.1.2)	Min margin to tensile stress limit in the first wall; Scalar
fw_min_bd_mg	float (7.9.6.1.2)	Min margin to banding stress limit in the first wall; Scalar
sg_min_ts_mg	float (7.9.6.1.2)	Min margin to tensile stress limit in the stiffening grid; Scalar
sg_min_bd_mg	float (7.9.6.1.2)	Min margin to bending stress limit in the stiffening grid; Scalar
cp_min_ts_mg	float (7.9.6.1.2)	Min margin to tensile stress limit in the cooling plate; Scalar
cp_min_bd_mg	float (7.9.6.1.2)	Min margin to bending stress limit in the cooling plate; Scalar
min_ts_mg_ac	float (7.9.6.1.2)	Min tensile margin in accidental conditions; Scalar
min_bd_mg_ac	float (7.9.6.1.2)	Min bending margin in accidental conditions; Scalar

Type of: hcllbb_specs:mod_mech (3246)

7.9.6.1.290 mode_neutr

Neutrons "effects"

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius position at wich power density is calculated [m]; Vector(nr)
pd_rad	vecflt_type (7.9.6.1.18)	Power density distribution in radial direction [W/m^3]; Vector(nr)
lipb_coef_pd	vecflt_type (7.9.6.1.18)	Pb-15.7Li power density distribution in radial direction: coefficients of bi-exponential law if this one is used [W/m^-3,W/m^-3,m^-1,m^-1]; Matrix
steel_coef_pd	vecflt_type (7.9.6.1.18)	Eurofer power density distribution in radial direction: coefficients of bi-exponential law if this one is used
pow_exchange	power_exchange (7.9.6.1.355)	NO DOCS

Type of: hcllbb_specs:mod_neutr (3246)

7.9.6.1.291 mode_th_hyd

hydrodynamics parameters

member	type	description
fw_dp_he	float (7.9.6.1.2)	Pressure drops in the first wall [Pa]; Scalar
sg_dp_he	float (7.9.6.1.2)	Pressure drops in the stiffening grid [Pa]; Scalar
cp_dp_he	float (7.9.6.1.2)	Pressure drops in the cooling plates [Pa]; Scalar
man_dp_he	float (7.9.6.1.2)	Pressure drops in the manifolds [Pa]; Scalar
tot_dp_he	float (7.9.6.1.2)	Total pressure drops in bb module [Pa]; Scalar
bp_dp_he	float (7.9.6.1.2)	Total pressure drops in the by pass (if any) [Pa]; ScalarScalar
circ_dp_he	float (7.9.6.1.2)	Pressure drops in one He circuit [Pa]; Scalar

Type of: hcllbb_specs:mod_th_hyd (3246)

7.9.6.1.292 mode_therm

Thermical parameters

member	type	description
he_fr	float (7.9.6.1.2)	Coolant mass flow rate in "the" reference bb (inboard or outboard) module [Kg/s]; Scalar
perc_bp_he	float (7.9.6.1.2)	% of Helium going through the bypass (set to 0 if not otherwise specified)
he_out_t	float (7.9.6.1.2)	Outlet temperature (from the bb module) [K]; Scalar
fw_he_out_t	float (7.9.6.1.2)	First wall outlet temperature [K]; Scalar
sg_he_out_t	float (7.9.6.1.2)	Stiffening grid outlet temperature [K]; Scalar
cp_he_out_t	float (7.9.6.1.2)	Cooling plates outlet temperature [K]; Scalar
fw_st_max_t	float (7.9.6.1.2)	First wall eurofer maximum temperature [K]; Scalar
sg_st_max_t	float (7.9.6.1.2)	Stiffening grid eurofer maximum temperature [K]; Scalar
cp_st_max_t	float (7.9.6.1.2)	Cooling plates eurofer maximum temperature [K]; Scalar

Type of: hcllbb_specs:mod_therm (3246)

7.9.6.1.293 mode_tritium

Tritium parameters

member	type	description
t_conc_lipb	float (7.9.6.1.2)	Tritium concentration in Pb-15.7Li; Scalar
t_conc_he	float (7.9.6.1.2)	Tritium concentration in He; Scalar

Type of: hcllbb_specs:mod_tritium (3246)

7.9.6.1.294 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.6.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.6.1.3)	Number of modules per antenna in the toroidal direction.
ima_theta	vecint_type (7.9.6.1.19)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.6.1.19)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.6.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.6.1.216)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.6.1.216)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.6.1.515)	Waveguides description

Type of: antennalh_setup:modules (3073)

7.9.6.1.295 msediag_emiss_chord

MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

member	type	description
volume	float (7.9.6.1.2)	Emitting volume (m^-3). Scalar
setup	rzphi1D (7.9.6.1.383)	Description of the line of sight (for the moment a line - not a cone of sight). Vector (npos).
polarization(:)	msediag_polarization (7.9.6.1.297)	Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.
quantiaxis	vecflt_type (7.9.6.1.18)	Quantization axis for the line of sight (eR,ePhi,eZ). It is a unitary vector associated to the line of sight and to the emissivity, e.g. the Lorentzian electric field direction); Vector (3). Time-dependent

Type of: msediag_emissivity:emiss_chord (3290)

7.9.6.1.296 msediag_emissivity

Emissivity characteristics.

member	type	description
wavelength	vecflt_type (7.9.6.1.18)	Wavelength [m]. Vector (nwavelength)
emiss_chord(:)	msediag_emiss_chord (7.9.6.1.295)	MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:emissivity (3424)

7.9.6.1.297 msediag_polarization

Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.6.1.254)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
spec_emiss	matflt_type (7.9.6.1.15)	Spectral emissivity of a particular polarization (Wm^-3sr-^1). Matrix (npos,nwavelength). Time-dependent

Type of: msediag_emiss_chord:polarization (3289)

7.9.6.1.298 msediag_radia_chord

MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

member	type	description
setup	msediag_setup (7.9.6.1.300)	Geometry for the observation line of sight
stokes(:)	msediag_stokes (7.9.6.1.302)	Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.
totradiance	exp1D (7.9.6.1.216)	Total Radiance integrated along the lines of sight (Wm^-2sr-^1). Vector (nwavelength)

Type of: msediag_radiance:radia_chord (3293)

7.9.6.1.299 msediag_radiance

Emissivity characteristics.

member	type	description
wavelength	exp1D (7.9.6.1.216)	Wavelength [m]. Vector (nwavelength)
radia_chord(:)	msediag_radia_chord (7.9.6.1.298)	MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:radiance (3424)

7.9.6.1.300 msediag_setup

Geometry for the observation line of sight

member	type	description
pivot_point	rzphi0D (7.9.6.1.382)	Pivot point of mse line of sight. Scalar
horchordang	float (7.9.6.1.2)	Angle [rad] of horizontal projection of mse line of sight with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.6.1.2)	Angle of mse line of sight with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.6.1.382)	Second point defining the mse line of sight together with the pivot_point. Scalar

Type of: msediag_radia_chord:setup (3292)

7.9.6.1.301 msediag_setup_polarimetry

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.6.1.388)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.6.1.15)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: polarimetry:setup (3346)

7.9.6.1.302 msediag_stokes

Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.6.1.254)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
vector	matflt_type (7.9.6.1.15)	Stokes vector (I,U,S,V) as a function of the wavelength. Vector (4,nwavelength).

Type of: msediag_radia_chord:stokes (3292)

7.9.6.1.303 nbi_nbi_unit_wall

Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.

member	type	description
surface	nbi_nbi_unit_wall_surface (7.9.6.1.304)	A collimating solid surface described by a polygon; no particle can pass through this surface
collimator(:)	flat_polygon (7.9.6.1.221)	Vector of collimating holes (openings). Each hole has to be flat, i.e. it lies on a surface. Particles can only cross this surface by passing through the hole. To describe the hole we first construct a coordinate system on the surface by defining the original and two basis vectors in (x,y,z) space. The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2. As an example, a rectangle with two of the corners given by "origin+basis1" and "origin+basis2" can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1].

Type of: nbi_unit:wall (3299)

7.9.6.1.304 nbi_nbi_unit_wall_surface

A collimating solid surface described by a polygon; no particle can pass through this surface

member	type	description
triangle(:)	trianglexyz (7.9.6.1.484)	Triangular wall surface described by its three corners: point1, point2, and point3. Vector(n_triangles)
rectangle(:)	rectanglexyz (7.9.6.1.364)	Rectangular wall surface described by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point should be calculated from the other three as point00=point01+poin10-point11. Vector(n_rectangles)

Type of: nbi_nbi_unit_wall:surface (3297)

7.9.6.1.305 nbi_unit

Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent

member	type	description
name	string (7.9.6.1.4)	Name of the neutral beam injector

member	type	description
inj_spec	inj_spec (7.9.6.1.258)	Injected species
pow_unit	exp0D (7.9.6.1.215)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.6.1.215)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.6.1.216)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.6.1.216)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
beamletgroup(:)	beamletgroup (7.9.6.1.85)	Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamlet-group provides a fair description.
wall	nbi_nbi_unit_wall (7.9.6.1.303)	Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: nbi:nbi_unit (3047)

7.9.6.1.306 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.6.1.15)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.6.1.15)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.6.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.6.1.319)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ne_transp (3143)

7.9.6.1.307 neut_results

Neutronic results

member	type	description
tbr_bk	float (7.9.6.1.2)	Resulting global breeding blanket tritium breeding ratio; Scalar
tbr_bk_inb	float (7.9.6.1.2)	Resulting inboard breeding blanket Tritium Breeding Ratio [-]; Scalar
tbr_bk_outb	float (7.9.6.1.2)	Resulting outboard breeding blanket Tritium Breeding Ratio [-]; Scalar
me_bk	float (7.9.6.1.2)	Energy multiplication factor in breeding blanket; Scalar
me_shield	float (7.9.6.1.2)	Energy multiplication factor in shield; Scalar
he_appm_res	float (7.9.6.1.2)	He production in areas needing to be rewelded; Scalar
ins_dose_max	float (7.9.6.1.2)	Integral radiation dose in insulator (Epoxy) [J*Kg^-1]; Scalar
fn_flu_max	float (7.9.6.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar
dpa_cu_max	float (7.9.6.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
fn_flux_bz	float (7.9.6.1.2)	Fast neutron flux in breeding zone inboard [m^2.s^-1]; Scalar
fn_flux_bp	float (7.9.6.1.2)	Fast neutron flux in backplate inboard [m^2.s^-1]; Scalar
fn_flux_man	float (7.9.6.1.2)	Fast neutron flux in manifold inboard [m^2.s^-1]; Scalar
fn_flux_sh	float (7.9.6.1.2)	Fast neutron flux in shield inboard [m^2.s^-1]; Scalar
p_nh_bk	float (7.9.6.1.2)	Total nuclear heating in blanket [W]; Scalar
p_nh_sh	float (7.9.6.1.2)	Total nuclear heating in shield [W]; Scalar

Type of: bb_shield:neut_results (3020)

7.9.6.1.308 neutral_complex_type

Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent

member	type	description
neutraltype(:)	coreneutrals_neutraltype (7.9.6.1.142)	Array (ntype) over neutral types. Time-dependent.
prad0	vecflt_type (7.9.6.1.18)	Power radiated by neutrals [W.m^-3]. Vector (nrho). Time-dependent.

Type of: coreneutrals:profiles (3025)

7.9.6.1.309 neutro_resul

Neutronic results

member	type	description
nwl_max	float (7.9.6.1.2)	Maximum neutron wall load (on equatorial outboard module) [W*m^-2]; Scalar
nwl_pol_prof	vecflt_type (7.9.6.1.18)	NWL scaling factor coefficient for each bb module; Vector(nmodules)

Type of: bb:neutro_resul (3075)

7.9.6.1.310 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.6.1.7)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.6.1.7)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.6.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.6.1.320)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ni_transp (3143)

7.9.6.1.311 ntm_mode

List of the various NTM modes appearing during the simulation. If a mode appears several times, use several indices in this arra of structure with the same m,n values. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.

member	type	description
onset	ntm_mode_onset (7.9.6.1.316)	NTM onset characteristics. Time-dependent
full_evol	ntm_mode_full_evol (7.9.6.1.314)	Detailed NTM evolution on a finer timebase than the CPO timebase. Time-dependent.
evolution	ntm_mode_evolution (7.9.6.1.312)	NTM evolution corresponding to the CPO timebase. Time-dependent.

Type of: ntm:mode (3049)

7.9.6.1.312 ntm_mode_evolution

NTM evolution corresponding to the CPO timebase. Time-dependent.

member	type	description

member	type	description
w	float (7.9.6.1.2)	Full width of the mode [m]. Time-dependent.
dwdt	float (7.9.6.1.2)	Time derivative of the full width of the mode [m/s]. Time-dependent.
phase	float (7.9.6.1.2)	Phase of the mode [rad]. Time-dependent.
dphasedt	float (7.9.6.1.2)	Time-derivative of the phase of the mode [rad]. Time-dependent.
frequency	float (7.9.6.1.2)	Frequency of the mode [Hz]. Time-dependent.
dfrequencydt	float (7.9.6.1.2)	Time derivative of the frequency of the mode [Hz]. Time-dependent.
island	ntm_mode_evolution_island (7.9.6.1.313)	Island description
n	integer (7.9.6.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.6.1.3)	Poloidal mode number. Time-dependent.
deltaw_value	vecflt_type (7.9.6.1.18)	Vector(ntype). Time-dependent.
deltaw_name	vecstring_type (7.9.6.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	vecflt_type (7.9.6.1.18)	Vector(ntype_torque). Time-dependent.
torque_name	vecstring_type (7.9.6.1.20)	Name of the torque contribution. String vector (ntype). Time-dependent.
delta_diff	vecflt_type (7.9.6.1.18)	Extra diffusion coefficient for Te, ne, Ti equation. Vector(nequation). Time-dependent.
description	string (7.9.6.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	float (7.9.6.1.2)	[m]. Time-dependent.

Type of: ntm_mode:evolution (3305)

7.9.6.1.313 ntm_mode_evolution_island

Island description

member	type	description
geometry	vecflt_type (7.9.6.1.18)	Description of island geometry [?]. Vector(nradial). Time-dependent.
coord_values	vecflt_type (7.9.6.1.18)	Radial coordinate values [?]. Vector(nradial). Time-dependent.
coord_desc	string (7.9.6.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_evolution:island (3306)

7.9.6.1.314 ntm_mode_full_evol

Detailed NTM evolution on a finer timebase than the CPO timebase. Time-dependent.

member	type	description
time_evol	vecflt_type (7.9.6.1.18)	Time array used to describe the detailed mode evolution which can be different from the CPO timebase [s]. Vector(ntime_evol). Time-dependent.
w	vecflt_type (7.9.6.1.18)	Full width of the mode [m]. Vector(ntime_evol). Time-dependent.
dwdt	vecflt_type (7.9.6.1.18)	Time derivative of the full width of the mode [m/s]. Vector(ntime_evol). Time-dependent.
phase	vecflt_type (7.9.6.1.18)	Phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
dphasedt	vecflt_type (7.9.6.1.18)	Time-derivative of the phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
frequency	vecflt_type (7.9.6.1.18)	Frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
dfrequencydt	vecflt_type (7.9.6.1.18)	time derivative of the frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
island	ntm_mode_full_evol_island (7.9.6.1.315)	Island description
n	integer (7.9.6.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.6.1.3)	Poloidal mode number. Time-dependent.
deltaw_value	matflt_type (7.9.6.1.15)	Matrix(ntype, ntime_evol). Time-dependent.
deltaw_name	vecstring_type (7.9.6.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	matflt_type (7.9.6.1.15)	Matrix(ntype_torque, ntime_evol). Time-dependent.
torque_name	vecstring_type (7.9.6.1.20)	Name of the torque contribution. String vector (ntype_torque). Time-dependent.
delta_diff	matflt_type (7.9.6.1.15)	Extra diffusion coefficient for Te, ne, Ti equation. Matrix(nequation, ntime_evol). Time-dependent.
description	string (7.9.6.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	vecflt_type (7.9.6.1.18)	[m]. Vector(ntime_evol) Time-dependent.

Type of: ntm_mode:full_evol (3305)

7.9.6.1.315 ntm_mode_full_evol_island

Island description

member	type	description
geometry	matflt_type (7.9.6.1.15)	Description of island geometry [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_values	matflt_type (7.9.6.1.15)	Radial coordinate values [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_desc	string (7.9.6.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_full_evol:island (3308)

7.9.6.1.316 ntm_mode_onset

NTM onset characteristics. Time-dependent

member	type	description
w	float (7.9.6.1.2)	Seed island full width [m]. Time-dependent.
time_onset	float (7.9.6.1.2)	Onset time [s]. Time-dependent.
time_offset	float (7.9.6.1.2)	Offset time [s] (when a mode disappears). If the mode reappears later in the simulation, use another index of the mode array of structure. Time-dependent.
phase	float (7.9.6.1.2)	Phase of the mode at onset [rad]. Time-dependent.
n	integer (7.9.6.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.6.1.3)	Poloidal mode number. Time-dependent.
description	string (7.9.6.1.4)	Cause of the mode onset. Time-dependent.

Type of: ntm_mode:onset (3305)

7.9.6.1.317 nuclei

Array of nuclei considered.

member	type	description
zn	float (7.9.6.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.6.1.2)	Mass of atom [amu]
label	string (7.9.6.1.4)	String identifying element (e.g. H, D, T, He, C, ...)

Type of: compositions_type:nuclei (3114)

7.9.6.1.318 objects

Definition of space objects (nodes, edges, faces, cells, ...).; A space object of dimension n is defined; by enumerating the (n-1)-dimensional space objects defining its boundaries

member	type	description
boundary	matint_type (7.9.6.1.16)	Lists of (n-1)-dimensional space objects defining the boundary of an n-dimensional space object.; Matrix(number of objects of dimension n, maximum number of boundary objects).; First dimension: object index, second dimension: boundary object index
neighbour	array3dint_type (7.9.6.1.8)	Connectivity information. Array (number of objects, maximum number of boundaries per object, maximum number of neighbours per boundary).; Stores the indices of the n-dimensional objects adjacent to the given n-dimensional object.;An object can possibly have multiple neighbours on every boundary.; First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array4dflt_type (7.9.6.1.9)	Geometry data matrix associated with every object. Float array (number of objects, number of geometry coeff. 1, number of geometry coeff. 2, number of geometries).; The exact definition depends on the geometry type of the space (complexgrid_space.geotype).; First dimension: object index, second+third dimension: geometry coefficient matrix row+column, third dimension: geometry index (for definition of multiple geometries).
measure	matflt_type (7.9.6.1.15)	Measure of space objects, i.e. physical size (length for 1d, area for 2d, volume for 3d objects,...). [m^dim].; First dimension: object index, second dimension: geometry index

Type of: complexgrid_space:objects (3106)

7.9.6.1.319 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.6.1.18)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.6.1.18)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.6.1.18)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.6.1.18)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (3300) I transcoefel:off_diagonal (3473)

7.9.6.1.320 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.6.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.6.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.6.1.15)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (3304) I transcoefion:off_diagonal (3475) I transcoefvtor:off_diagonal (3476)

7.9.6.1.321 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.6.1.377)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.6.1.18)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (3166)

7.9.6.1.322 orbit_global_param

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.6.1.19)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.6.1.18)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.6.1.18)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.6.1.18)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	orbit_special_pos (7.9.6.1.325)	Special positions along an orbit (like turning points).

Type of: orbit:global_param (3050)

7.9.6.1.323 orbit_midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.6.1.324)	Position at outer mid-plane
inner	orbit_pos (7.9.6.1.324)	Position at inner mid-plane

Type of: orbit_special_pos:midplane (3319)

7.9.6.1.324 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.6.1.18)	Altitude [m]; Time-dependent; Vector (norbits).
phi	vecflt_type (7.9.6.1.18)	Toroidal angle [rad]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.6.1.18)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.6.1.18)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: orbit_midplane:inner (3317) I orbit_midplane:outer (3317) I orbit_turning_pts:lower (3320) I orbit_turning_pts:upper (3320)

7.9.6.1.325 orbit_special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	orbit_midplane (7.9.6.1.323)	Intersections with the midplane
turning_pts	orbit_turning_pts (7.9.6.1.326)	Location of turning points

Type of: orbit_global_param:special_pos (3316)

7.9.6.1.326 orbit_turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.6.1.324)	Position at upper turning point
lower	orbit_pos (7.9.6.1.324)	Position at lower turning point

Type of: orbit_special_pos:turning_pts (3319)

7.9.6.1.327 origin

member	type	description
refpos	rzphi0D (7.9.6.1.382)	Reference point of the local coordinate system; the position of either the last quasi-optical element, or the horn antenna. Default is facing horizontally away from the central axis. The local coordinate system is cartesian, with the local z axis defining the nominal beam direction, x parallel to the global z, and y completing the right-handed local coordinate system
alpha	float (7.9.6.1.2)	Poloidal tilt angle [rad]; angle between local z axis and horizontal plane, 0 is facing outward, pi/2 is downwards, pi inwards
beta	float (7.9.6.1.2)	Toroidal tilt angle [rad]; angle between local z axis and r-z plane
gamma	float (7.9.6.1.2)	Rotation angle about local z axis [rad]

Type of: reflectometry_antennas:origin (3362)

7.9.6.1.328 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.6.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.6.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.6.1.4)	Code parameters schema.

Type of

7.9.6.1.329 parameters

Parameters used to defined the grid coordiantes. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.6.1.212)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent

Type of: source_rate:parameters (3417)

7.9.6.1.330 pellet

Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.

member	type	description
shape	pellet_shape (7.9.6.1.337)	Structure defining the shape of the pellet. Time-dependent.
elements	pellet_elements (7.9.6.1.333)	Structure defining the composition of the pellet. Time-dependent.
geometry	pellet_geometry (7.9.6.1.334)	Structure describing the geometry of the pellet path. Time-dependent.
pathprofiles	pellet_pathprofiles (7.9.6.1.336)	Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.
deposition	pellet_deposition (7.9.6.1.332)	Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

Type of: pellets:pellet (3051)

7.9.6.1.331 pellet_angles

Angles of the pellet trajectory. Time-dependent.

member	type	description
horizontal	float (7.9.6.1.2)	Angle [rad] of the horizontal projection of the path with poloidal cross section (0 for HFS , then counter clockwise looking from above), scalar. Time-dependent.
vertical	float (7.9.6.1.2)	Angle [rad] of the path with vertical axis section (0 for bottom-top trajectory, then counter clockwise), scalar. Time-dependent.

Type of: pellet_geometry:angles (3328)

7.9.6.1.332 pellet_deposition

Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

member	type	description
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m], array (NRHO). Time-dependent.
rho_pol	vecflt_type (7.9.6.1.18)	Poloidal flux coordinate [m], array(NRHO). Time-dependent.
delta_ne	vecflt_type (7.9.6.1.18)	Instant change of ne profile due to pellet ablation [m^-3], array(NRHO). Time-dependent.
delta_te	vecflt_type (7.9.6.1.18)	Instant change of Te profile due to pellet ablation [eV], array(NRHO). Time-dependent.
delta_ni	matflt_type (7.9.6.1.15)	Instant change of ni profile due to pellet ablation [m^-3], array (NRHO, NION). Time-dependent.
delta_ti	matflt_type (7.9.6.1.15)	Instant change of Ti profile due to pellet ablation [eV], array (NRHO, NION). Time-dependent.

member	type	description
delta_vtor	matflt_type (7.9.6.1.15)	Instant change of Vtor profile due to pellet ablation [m/s], array (NRHO, NION). Time-dependent.
impurity(:)	pellet_impurity (7.9.6.1.335)	Contributions to impurity array of structures (NIMP). Time-dependent

Type of: pellet:deposition (3324)

7.9.6.1.333 pellet_elements

Structure defining the composition of the pellet. Time-dependent.

member	type	description
nucindex	vecint_type (7.9.6.1.19)	Index into list of nuclei, array over elements in pellet (NATM). Time-dependent.
density	vecflt_type (7.9.6.1.18)	Material density of each element of the pellet, array over elements (NATM). Time-dependent.
fraction	vecflt_type (7.9.6.1.18)	Fraction of each element in the pellet, array over elements in pellet (NATM). Time-dependent.
subl_energy	vecflt_type (7.9.6.1.18)	Sublimation energy per atom, array over elements in pellet (NATM). Time-dependent.

Type of: pellet:elements (3324)

7.9.6.1.334 pellet_geometry

Structure describing the geometry of the pellet path. Time-dependent.

member	type	description
pivot_point	rzphi0D (7.9.6.1.382)	Coordinates of the pivot point for pellet trajectory. Time-dependent.
second_point	rzphi0D (7.9.6.1.382)	Coordinates of the second point for pellet trajectory. Time-dependent.
velocity	float (7.9.6.1.2)	Starting velocity of the pellet [m/s]. Scalar. Time-dependent.
angles	pellet_angles (7.9.6.1.331)	Angles of the pellet trajectory. Time-dependent.

Type of: pellet:geometry (3324)

7.9.6.1.335 pellet_impurity

Contributions to impurity array of structures (NIMP). Time-dependent

member	type	description
delta_nz	matflt_type (7.9.6.1.15)	Instant change of Nz profile (per charge state) due to pellet ablation [m^-3], array (NRHO, NZ-IMP). Time-dependent.

Type of: pellet_deposition:impurity (3326)

7.9.6.1.336 pellet_pathprofiles

Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.

member	type	description
distance	vecflt_type (7.9.6.1.18)	Coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_pol	vecflt_type (7.9.6.1.18)	Poloidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
velocity	vecflt_type (7.9.6.1.18)	Pellet velocity along the pellet trajectory [m/s], array (NPATH). Time-dependent.
ne	vecflt_type (7.9.6.1.18)	Electron density along the pellet trajectory [m^-3], array (NPATH). Time-dependent.
te	vecflt_type (7.9.6.1.18)	Electron temperature along the pellet trajectory [eV], array (NPATH). Time-dependent.
abl_rate	vecflt_type (7.9.6.1.18)	Ablation rate along the pellet trajectory [part/s], array (NPATH). Time-dependent.
abl_particles	vecflt_type (7.9.6.1.18)	Number of ablated particles along the pellet trajectory [part], array (NPATH). Time-dependent.
delta_drift	vecflt_type (7.9.6.1.18)	Radial displacement due to ExB drifts along the pellet trajectory [m], array (NPATH). Time-dependent.
position	rzphi1D (7.9.6.1.383)	Coordinates of the pellet trajectory line, array (NPATH). Time-dependent.

Type of: pellet:pathprofiles (3324)

7.9.6.1.337 pellet_shape

Structure defining the shape of the pellet. Time-dependent.

member	type	description
type	identifier (7.9.6.1.254)	Identifier for the shape of the pellet: 1-spherical; 2-cylindrical; 3-rectangular; 4-generic. Time-dependent.
dimensions	vecflt_type (7.9.6.1.18)	Vector specifying the dimensions of the pellet following the order for predefined shapes. Spherical pellets: dimensions(1) is the radius [m] of the pellet; Cylindrical pellets: dimensions(1) is the radius [m] and dimensions(2) is the height [m] of the cylinder; Rectangular pellets: dimensions(1) is the height [m], dimensions(2) is the width [m] and dimensions(3) is the length [m]; Time-dependent.

Type of: pellet:shape (3324)

7.9.6.1.338 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.6.1.15)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.6.1.15)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (3151)

7.9.6.1.339 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.6.1.20)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.6.1.20)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.6.1.19)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.6.1.8)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (3052)

7.9.6.1.340 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.6.1.158)	Description of the coils
coilcurrent	exp1D (7.9.6.1.216)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.6.1.216)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)
p_cryo	float (7.9.6.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
p_nh	vecflt_type (7.9.6.1.18)	Nuclear heating on the poloidal field coils [W]; Time-dependent. Vector(ncoils)

Type of: pfsystems:pfcoils (3052)

7.9.6.1.341 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.

member	type	description
id	vecstring_type (7.9.6.1.20)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.6.1.15)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.6.1.15)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.6.1.342)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (3152)

7.9.6.1.342 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.6.1.16)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.6.1.16)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.6.1.381)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.6.1.7)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (3335)

7.9.6.1.343 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.6.1.19)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.6.1.19)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.6.1.380)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.6.1.15)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (3338)

7.9.6.1.344 pfpassive

Passive axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of coil. Array of strings (nelements)
area	vecflt_type (7.9.6.1.18)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.6.1.18)	Passive element resistance [Ohm]; Vector (nelements)
eta	vecflt_type (7.9.6.1.18)	Passive element resistivity [Ohm.m]; Vector (nelements)
current	pfpassive_current (7.9.6.1.345)	Current induced in passive structures.
pfpageometry	pfpageometry (7.9.6.1.343)	Geometry of the passive elements

Type of: pfsystems:pfpassive (3052)

7.9.6.1.345 pfpassive_current

Current induced in passive structures.

member	type	description
toroidal	exp1D (7.9.6.1.216)	Toroidal current induced in passive structures [A]. Vector (nelements); Time-dependent
poloidal	exp1D (7.9.6.1.216)	Poloidal current induced in passive structures [A]. Vector (nelements); Time-dependent

Type of: pfpassive:current (3338)

7.9.6.1.346 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.6.1.159)	Description of the power supplies
voltage	exp1D (7.9.6.1.216)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.6.1.216)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (3052)

7.9.6.1.347 phaseellipse

Phase ellipse characteristics

member	type	description
invcurvrad	vecflt_type (7.9.6.1.18)	Inverse curvature radii for the phase ellipse [m-1], positive/negative for divergent/convergent beams, Vector (2). Time-dependent
angle	float (7.9.6.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (3369)

7.9.6.1.348 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.6.1.377)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.6.1.18)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].
radialhwidth	vecflt_type (7.9.6.1.18)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (3466)

7.9.6.1.349 plasmaComplexType

Description of incoming plasma

member	type	description
species	vecint_type (7.9.6.1.19)	Definition of plasma species. Index into wall/compositions/edgespecies. Integer vector (number of plasma species).
flux	matflt_type (7.9.6.1.15)	Plasma particle flux density from/to plasma facing wall surfaces [1/(m^2 s)]. Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)
b	matflt_type (7.9.6.1.15)	Magnetic field vector at the surface [T]; Time-dependent; Float matrix (number of space dimensions, number of discretization elements in the subgrid). If two-dimensional: unit vectors with first coordinate perpendicular to the wall facing towards the plasma, second coordinate parallel to the surface (in the direction of the surface discretization), third dimension is zero. If three-dimensional: vector is relative to basis vectors stored in wall/wall3d/grid/basis with basis index as given in wall/wall3d/basis_index.
energy	matflt_type (7.9.6.1.15)	Total energy flux density of incoming particles of given species [W/m^2]; Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)

Type of: wall2d:plasma (3493) I wall3d:plasma (3495)

7.9.6.1.350 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.6.1.3)	Number of points in the distance grid. Integer

member	type	description
distance	vecflt_type (7.9.6.1.18)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.6.1.18)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (3071)

7.9.6.1.351 pol_decomp

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
mpol	vecint_type (7.9.6.1.19)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of normal wave magnetic field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.6.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array3dflt_type (7.9.6.1.7)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.6.1.7)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.6.1.7)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
k_perp	array3dflt_type (7.9.6.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (3222)

7.9.6.1.352 polarimetry

This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.

member	type	description
setup	msediag_setup_polarimetry (7.9.6.1.301)	diagnostic setup information
measure	exp1D (7.9.6.1.216)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)

Type of: msediag:polarimetry (3046)

7.9.6.1.353 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.6.1.18)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_p_im	vecflt_type (7.9.6.1.18)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.6.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.6.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.6.1.18)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.6.1.18)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (3081)

7.9.6.1.354 power_conv_component

Description of the components of the power conversion system. Array of structure (ncomp).

member	type	description
name	string (7.9.6.1.4)	name of the component
temp_in	float (7.9.6.1.2)	temperature of the input [K];Scalar
temp_out	float (7.9.6.1.2)	temperature of the output [K];Scalar
press_in	float (7.9.6.1.2)	Pressure of the input[Pa];Scalar
press_out	float (7.9.6.1.2)	Pressure of the output [Pa];Scalar
power	float (7.9.6.1.2)	electric consumption by the component; (consumption power)[W];Scalar
flow	float (7.9.6.1.2)	Flow through the component [kg/s]; Scalar

Type of: circuits:component (3089)

7.9.6.1.355 power_exchange

member	type	description
dep_pow	vecflt_type (7.9.6.1.18)	Power deposited in each bb module (the reference outboard module if only value is given) [W]; Vector(nmodules)
dep_fw	float (7.9.6.1.2)	Power deposited in the first wall (heat flux + neutrons) [W]; Scalar
dep_sg	float (7.9.6.1.2)	Power deposited in the stiffening grid (neutrons) [W]; Scalar
dep_cp	float (7.9.6.1.2)	Power deposited in the cooling plates (neutrons) [W]; Scalar
dep_lp	float (7.9.6.1.2)	Power deposited in the Pb-15.7Li (neutrons) [W]; Scalar
dep_man	float (7.9.6.1.2)	Power deposited in the manifolds (neutrons) [W]; Scalar
dep_pl	float (7.9.6.1.2)	Power deposited in the protect layer (made of tungsten) (neutrons) [W]; Scalar
rec_fw	float (7.9.6.1.2)	Power recovered from He in first wall channels [W]; Scalar
rec_sg	float (7.9.6.1.2)	Power recovered from He in stiffening grid channels [W]; Scalar
rec_cp	float (7.9.6.1.2)	Power recovered from He in cooling plates channels [W]; Scalar
pow_dens_fw	float (7.9.6.1.2)	Peak energy depostion in first wall [W.m^-3]; Scalar
pow_dens_bz	float (7.9.6.1.2)	Peak energy depostion in breeding zone [W.m^-3]; Scalar
pow_dens_bz10	float (7.9.6.1.2)	Peak energy depostion in breeding zone (first ten centimers) [W.m^-3]; Scalar
pow_dens_bp	float (7.9.6.1.2)	Peak energy depostion in back plate [W.m^-3]; Scalar
pow_dens_man	float (7.9.6.1.2)	Peak energy depostion in manifold [W.m^-3]; Scalar
pow_dens_sh	float (7.9.6.1.2)	Peak energy depostion in shield [W.m^-3]; Scalar

Type of: mode_neutr:pow_exchange (3284)

7.9.6.1.356 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.6.1.18)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent

member	type	description
phi_par	vecflt_type (7.9.6.1.18)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.6.1.18)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.6.1.15)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (3081)

7.9.6.1.357 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.6.1.143)	Electron pressure [Pa]; Time-dependent;
dpedt	coreprofile (7.9.6.1.143)	Time derivative of the electron pressure [Pa/s]; Time-dependent;
pi	coreprofion (7.9.6.1.144)	Ion pressure [Pa]; Time-dependent;
pi_tot	coreprofile (7.9.6.1.143)	Total ion pressure (sum of the species) [Pa]; Time-dependent;
dpi_totdt	coreprofile (7.9.6.1.143)	Time derivative of the total ion pressure [Pa/s]; Time-dependent;
pr_th	coreprofile (7.9.6.1.143)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.6.1.143)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.6.1.143)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.6.1.143)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.6.1.143)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jphi	coreprofile (7.9.6.1.143)	total toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent;
joh	coreprofile (7.9.6.1.143)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.6.1.143)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.6.1.143)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	sourceel (7.9.6.1.425)	ohmic heating [W/m^3]; Time-dependent;
qei	coreprofile (7.9.6.1.143)	Collisional heat transfer from electrons to ions (equipartition term) [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.6.1.143)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.6.1.143)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.6.1.143)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.6.1.143)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.6.1.144)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.6.1.144)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.6.1.144)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
zeff	coreprofile (7.9.6.1.143)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.6.1.143)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dvprimedt	coreprofile (7.9.6.1.143)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (3026)

7.9.6.1.358 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.6.1.18)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.6.1.18)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.6.1.18)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.6.1.18)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.6.1.18)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.6.1.18)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.6.1.18)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)

member	type	description
q	vecflt_type (7.9.6.1.18)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
shear	vecflt_type (7.9.6.1.18)	Magnetic shear, defined as rho_tor/q*dq/drho_tor [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.6.1.18)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.6.1.18)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.6.1.18)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.6.1.18)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.6.1.18)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.6.1.18)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.6.1.18)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.6.1.18)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.6.1.18)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.6.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
dvdrho	vecflt_type (7.9.6.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to rho_tor, i.e. dV/drho_tor [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.6.1.18)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.6.1.18)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.6.1.18)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.6.1.18)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.6.1.18)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.6.1.18)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.6.1.18)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.6.1.18)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.6.1.18)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.6.1.18)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.6.1.18)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.6.1.18)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.6.1.18)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.6.1.18)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.6.1.18)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.6.1.18)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.6.1.18)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.6.1.18)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.6.1.18)	Poloidal flow function phi_flow = rho*v_pol/B_pol[kg/(V.s^2)] where rho is mass density; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.6.1.18)	Flux function in the closure equation p=S(psi).rho^(gamma); Entropy (gamma=5/3) or Temperature (gamma=1); Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.6.1.18)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)
rho_mass	vecflt_type (7.9.6.1.18)	Mass density [kg/m^3]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (3035)

7.9.6.1.359 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Signal value [Wb]; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.6.1.18)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.6.1.18)	Second order radial derivative (d2value/drho_tor2) [Wb.m^-2]; Time-dependent; Vector (nrho)
ddt_rhotorn	vecflt_type (7.9.6.1.18)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
ddt_phi	vecflt_type (7.9.6.1.18)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.

member	type	description
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.6.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.6.1.88)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.6.1.261)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.6.1.143)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: coreprof:psi (3026)

7.9.6.1.360 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.6.1.4)	Storage method for this data
putaccess	string (7.9.6.1.4)	Instructions to access the data using this method
putlocation	string (7.9.6.1.4)	Name of this data under this method
rights	string (7.9.6.1.4)	Access rights to this data

Type of: datainfo:putinfo (3148)

7.9.6.1.361 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.6.1.18)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.6.1.377)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.6.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.6.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.6.1.18)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.6.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.6.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.6.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (3202)

7.9.6.1.362 reacprodType

Characterizes a reactant or product in an AMNS reaction.

member	type	description
label	string (7.9.6.1.4)	String identifier for reaction participant (e.g. "D", "e", "W", "CD4", "photon", "n").
constituents(:)	amns_constituentType (7.9.6.1.73)	Array specifying the constituents of this reactant/product; For an atom or ion the array will be of length 1, for a molecule there will be more than one element in the array; Vector (nconst)
role	identifier (7.9.6.1.254)	Identifier for the role of this paricipant in the reaction. For surface reactions distinguish between projectile and wall.
amn	float (7.9.6.1.2)	Mass of the participant (amu).
relative	integer (7.9.6.1.3)	This is a flag indicating that charges are absolute (if set to 0), relative (if 1) or irrelevant (-1); relative would be used to categorize the ionization reactions from i to i+1 for all charge states; in the case of bundles, the +1 relative indicates the next bundle.
za	float (7.9.6.1.2)	Charge of the participant. Not set if not important (e.g. for a nuclear reaction). For the case where we are describing a set of reactions for different charge states, then this is the relative charge.
multiplicity	float (7.9.6.1.2)	Multiplicity in the reaction

member	type	description
metastable	vecint_type (7.9.6.1.19)	An array identifying the metastable; if zero-length, then not a metastable; if of length 1, then the value indicates the electronic level for the metastable (mostly used for atoms/ions); if of length 2, then the 1st would indicate the electronic level and the second the vibrational level for the metastable (mostly used for molecules and molecular ions); if of length 3, then the 1st would indicate the electronic level, the second the vibrational level and the third the rotational level for the metastable (mostly used for molecules and molecular ions)
metastable_label	string (7.9.6.1.4)	Label identifying in text form the metastable

Type of: amns_processType:product (3068) I amns_processType:reactant (3068)

7.9.6.1.363 react

In the reactor region

member	type	description
he_fr	float (7.9.6.1.2)	Coolant mass flow rate in the whole reactor [Kg/s]; Scalar
lp_fr	float (7.9.6.1.2)	Pb-15.7Li mass flow rate in the whole reactor [Kg/s]; Scalar
he_dp	float (7.9.6.1.2)	Coolant pressure drops in the reactor (compressing pipelines) [Pa]; Scalar
lipb_dp	float (7.9.6.1.2)	Pb-15.7Li pressure drops in the reactor [Pa]; Scalar

Type of: hcll_bb:react (3245)

7.9.6.1.364 rectanglexyz

Rectangle defined by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point can be calculated from the other three as point00=point01+poin10-point11, thus the rectangle is defined by the triplet (point01, point11, point10). The normal vector of this rectangle is defined to be in the direction (point01-point11)x(point10-point11).

member	type	description
point01	xyz0D (7.9.6.1.527)	Point 01 on the rectangle
point11	xyz0D (7.9.6.1.527)	Point 11 on the rectangle
point10	xyz0D (7.9.6.1.527)	Point 10 on the rectangle

Type of: nbi_nbi_unit_wall_surface:rectangle (3298)

7.9.6.1.365 recycling_neutrals

Recycling coefficients

member	type	description
particles	vecflt_type (7.9.6.1.18)	Particle recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut,). Time-dependent.
energy	vecflt_type (7.9.6.1.18)	Energy recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:recycling (3093)

7.9.6.1.366 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.6.1.2)	Data value; Real
source	string (7.9.6.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.6.1.2)	Time (exact time slice used from the time array of the source signal); Real

7.9.6.1.367 refl_receive

Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.

member	type	description
name	string (7.9.6.1.4)	Signal name
raw_signal	t_series_real (7.9.6.1.437)	Raw antenna signal, possibly code dependent, may not always be available; usually without mixing of local oscillator; Time series; Vector (ntime_raw); Time-dependent
io_signal	t_series_real (7.9.6.1.437)	Local oscillator signal, for mixing with raw signal; Time series; Vector (ntime_raw); Time-dependent
iq_receiver	t_series_cplx (7.9.6.1.436)	I and Q signals from the receiver; already processed by code (or hardware); Time series; Vector (ntime_receiver); Time-dependent
antenna_ind	integer (7.9.6.1.3)	Index of the receiving antenna in the antennas vector, starting at 0

Type of: reflectomet:refl_receive (3055)

7.9.6.1.368 reflectometry_antennas

Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array.

member	type	description
name	string (7.9.6.1.4)	Antenna name
type	identifier (7.9.6.1.254)	Antenna type: 1: sending, 2: receiving, 3: both
origin	origin (7.9.6.1.327)	NO DOCS
radfield	reflectometry_radfield (7.9.6.1.369)	Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent; Time-dependent
geometry	float (7.9.6.1.2)	To be defined: annotation and type
launchsignal	launchsignal (7.9.6.1.270)	NO DOCS

Type of: reflectomet:antennas (3055)

7.9.6.1.369 reflectometry_radfield

Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent

member	type	description
type	identifier (7.9.6.1.254)	Identify type of source: 0: Gaussian, 1: waveguide mode, 2: arbitrary E field; corresponding sub-structure must be filled to provide the information.
position	vecflt_type (7.9.6.1.18)	Center position in local x-y-z coordinate system [m]; Vector(3)
gaussian(:)	reflectometry_radfield_gaussian (7.9.6.1.370)	Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only. Time-dependent
efield(:)	reflectometry_radifield_efield (7.9.6.1.371)	complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

Type of: reflectometry_antennas:radfield (3362)

7.9.6.1.370 reflectometry_radfield_gaussian

Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only; Time-dependent

member	type	description
aperture	simp_apert (7.9.6.1.418)	Physical limits of the Gaussian wave field; any rotation here is at odds with the Gaussian geometry
waistsize	vecflt_type (7.9.6.1.18)	Beam waist size [m]; Vector(2)
waistzpos	vecflt_type (7.9.6.1.18)	Beam waist position along local z axis [m]; Vector(2)
tiltangle	vecflt_type (7.9.6.1.18)	tilt angle relative to local z axis [rad]; Vector(2)
polar_angle	vecflt_type (7.9.6.1.18)	Polarisation angle around local z [rad]; 0 means along the local x axis, i.e. vertical if all angles in the origin field are 0; Scalar
frequency	float (7.9.6.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:gaussian (3363)

7.9.6.1.371 reflectometry_radifield_efield

complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

member	type	description
grid2d	reggrid (7.9.6.1.372)	Coordinate values for the grid for the electric field arrays. Vector(ndim1) and Vector(ndim2); Time-dependent
e1	matcplx_type (7.9.6.1.14)	Electric field component along local x direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
e2	matcplx_type (7.9.6.1.14)	Electric field component along local y direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
frequency	float (7.9.6.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:efield (3363)

7.9.6.1.372 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.6.1.18)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.6.1.18)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (3116) I reflectometry_radifield_efield:grid2d (3365)

7.9.6.1.373 rfameasure

Measured values

member	type	description
ti	exp1D (7.9.6.1.216)	Ion temperature [eV]. Vector (nchannels)

Type of: rfadiag:measure (3056)

7.9.6.1.374 rfasetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.6.1.384)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: rfadiag:setup (3056)

7.9.6.1.375 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.6.1.432)	Spot characteristics

member	type	description
phaseellipse	phaseellipse (7.9.6.1.347)	Phase ellipse characteristics

Type of: antenna_ec:beam (3069) I antenna_lh:beam (3071)

7.9.6.1.376 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.6.1.2)	Major radius [m]
z	float (7.9.6.1.2)	Altitude [m]

Type of: circularcoil:centre (3090) I current:rz_reference (3144) I dist_geometry_0d:mag_axis (3161) I distsource_global_param:mag_axis (3180) I eqgeometry:active_limit (3203) I eqgeometry:geom_axis (3203) I eqgeometry:left_low_st (3203) I eqgeometry:left_up_st (3203) I eqgeometry:right_low_st (3203) I eqgeometry:right_up_st (3203) I mag_axis:position (3271) I waves_global_param:mag_axis (3510)

7.9.6.1.377 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]
z	vecflt_type (7.9.6.1.18)	Altitude [m]

Type of: flush:position (3216) I isoflux:position (3254) I limiter_unit:position (3265) I mhd_ideal_wall2d:position (3276) I mhd_res_wall2d:position (3279) I omnigen_surf:rz (3315) I planecoil:coordinates (3342) I q:position (3355) I setup_bprobe:position (3406) I solcurdiag_sol_current_setup:position (3414) I straps:coord_strap (3428) I wall_blocks_unit:position (3497) I wall_vessel_annular:inside (3504) I wall_vessel_annular:outside (3504) I xpts:position (3520)

7.9.6.1.378 rz1D_npoints

Structure for list of R,Z positions (1D), with mention of the number of points relevant for a given time slice

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.6.1.18)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.6.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

7.9.6.1.379 rz1Dexp

Structure for list of R,Z positions (1D), with R and Z time-depent and experimental.

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]. Vector(npoints). Time-dependent
z	vecflt_type (7.9.6.1.18)	Altitude [m]. Vector(npoints). Time-dependent

Type of: eqgeometry:boundary (3203) I eqgeometry:xpts (3203)

7.9.6.1.380 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.6.1.15)	Major radius [m]
z	matflt_type (7.9.6.1.15)	Altitude [m]

Type of: coord_sys:position (3116) I geom_iron:rzcoordinate (3240) I pfpageometry:rzcoordinate (3337)

7.9.6.1.381 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.6.1.7)	Major radius [m]
z	array3dflt_type (7.9.6.1.7)	Altitude [m]

Type of: pfgeometry:rzcoordinate (3336)

7.9.6.1.382 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.6.1.2)	Major radius [m]
z	float (7.9.6.1.2)	Altitude [m]
phi	float (7.9.6.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (3069) I antenna_lh:position (3071) I beamletgroup:position (3079) I fusiondiag_voxels:centre (3238) I fusiondiag_voxels:direction (3238) I msediag_setup:pivot_point (3294) I msediag_setup:second_point (3294) I origin:refpos (3321) I pellet_geometry:pivot_point (3328) I pellet_geometry:second_point (3328)

7.9.6.1.383 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]
z	vecflt_type (7.9.6.1.18)	Altitude [m]
phi	vecflt_type (7.9.6.1.18)	Toroidal angle [rad]

Type of: beamlets:position (3080) I edges:edge_rzphi (3197) I fusiondiag_colliunit_circ:centre (3227) I halpha_setup:pivot_poir (3243) I halpha_setup:second_point (3243) I launchs:position (3042) I lithsetup:position (3269) I msediag_emiss_chord:setup (3289) I pellet_pathprofiles:position (3330) I setup_line:pivot_point (3408) I setup_line:second_point (3408) I setup_line:third_point (3408) I tssetup:position (3480)

7.9.6.1.384 rzphi1Dexp

Structure for list of R,Z,phi positions (1D) with experimental structure (value, abserror, relerror)

member	type	description
r	exp1D (7.9.6.1.216)	Major radius [m]
z	exp1D (7.9.6.1.216)	Altitude [m]
phi	exp1D (7.9.6.1.216)	Toroidal angle [rad]

Type of: cxsetup:position (3146) I ecemeasure:position (3187) I lang_derived:position (3256) I lang_measure:position (3257) I rfasetup:position (3368)

7.9.6.1.385 rzphi1Dexperimental

Structure for list of R,Z,phi positions (1D) with additional appinfo tags to have some nodes both in MD and DM

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius [m]
z	vecflt_type (7.9.6.1.18)	Altitude [m]
phi	vecflt_type (7.9.6.1.18)	Toroidal angle [rad]

Type of: setup_line_exp:pivot_point (3409) I setup_line_exp:second_point (3409) I setup_line_exp:third_point (3409)

7.9.6.1.386 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.6.1.15)	Major radius [m]
z	matflt_type (7.9.6.1.15)	Altitude [m]
phi	matflt_type (7.9.6.1.15)	Toroidal angle [rad]

Type of: fusiondiag_colliunit_poly:nodes (3228) I setup_floops:position (3407)

7.9.6.1.387 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.6.1.7)	Major radius [m]
z	array3dflt_type (7.9.6.1.7)	Altitude [m]
phi	array3dflt_type (7.9.6.1.7)	Toroidal angle [rad]

Type of: turbcoordsys:position (3482)

7.9.6.1.388 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.6.1.18)	Position : major radius [m]
z	vecflt_type (7.9.6.1.18)	Position : altitude [m]
phi	vecflt_type (7.9.6.1.18)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.6.1.18)	Width : major radius [m]
dz	vecflt_type (7.9.6.1.18)	Width : altitude [m]
dphi	vecflt_type (7.9.6.1.18)	Width : toroidal angle [rad]

Type of: msediag_setup_polarimetry:rzgamma (3295)

7.9.6.1.389 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.6.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.6.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.6.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.6.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (3057)

7.9.6.1.390 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.6.1.18)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.6.1.15)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.6.1.18)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.6.1.15)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.6.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.6.1.18)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.6.1.18)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).

member	type	description
volume	vecflt_type (7.9.6.1.18)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.6.1.18)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (3057)

7.9.6.1.391 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.6.1.408)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.6.1.408)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.6.1.408)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.6.1.408)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.6.1.408)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.6.1.408)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.6.1.408)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.6.1.408)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.6.1.408)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.6.1.408)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.6.1.408)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (3058)

7.9.6.1.392 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.6.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.6.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.6.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.6.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.6.1.19)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.6.1.18)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.6.1.18)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.6.1.18)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.6.1.18)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (3058)

7.9.6.1.393 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.6.1.400)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.6.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.6.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.6.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.6.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.6.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.6.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.6.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.6.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.6.1.4)	chemical compostion of the wall. String.

member	type	description
evap_mat	string (7.9.6.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.6.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.6.1.4)	chemical compostion of the divertor
coordinate	string (7.9.6.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.6.1.408)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.6.1.408)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.6.1.400)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.6.1.408)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.6.1.408)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.6.1.400)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.6.1.408)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.6.1.408)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.6.1.400)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.6.1.408)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.6.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.6.1.408)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.6.1.408)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.6.1.408)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.6.1.408)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.6.1.408)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.6.1.408)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (3058)

7.9.6.1.394 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.6.1.408)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.6.1.408)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.6.1.408)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.6.1.408)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.6.1.408)	electron energy confimenent time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.6.1.408)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.6.1.408)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.6.1.408)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.6.1.408)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (3058)

7.9.6.1.395 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.6.1.408)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.6.1.408)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.6.1.408)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.6.1.408)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.6.1.408)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.6.1.408)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.6.1.408)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.6.1.408)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.6.1.408)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.6.1.408)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.6.1.408)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.6.1.408)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.6.1.408)	runaway current [A]. Time-dependent.

member	type	description
v_loop	scenario_ref (7.9.6.1.408)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.6.1.408)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (3058)

7.9.6.1.396 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.6.1.408)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.6.1.408)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.6.1.408)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.6.1.408)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.6.1.408)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.6.1.408)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.6.1.408)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.6.1.408)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.6.1.408)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.6.1.408)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.6.1.408)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.6.1.408)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (3058)

7.9.6.1.397 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.6.1.408)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.6.1.408)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.6.1.408)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.6.1.408)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.6.1.408)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.6.1.408)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.6.1.408)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.6.1.408)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.6.1.408)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.6.1.408)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.6.1.408)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.6.1.408)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.6.1.408)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.6.1.408)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.6.1.408)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.6.1.408)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (3058)

7.9.6.1.398 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.6.1.408)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.6.1.408)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.6.1.408)	poloidal beta []. Time-dependent.

member	type	description
beta_tor	scenario_ref (7.9.6.1.408)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.6.1.408)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.6.1.408)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.6.1.408)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.6.1.408)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.6.1.408)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.6.1.408)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.6.1.408)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.6.1.408)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.6.1.408)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.6.1.408)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.6.1.408)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.6.1.408)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (3058)

7.9.6.1.399 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.6.1.408)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.6.1.408)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.6.1.408)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.6.1.408)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.6.1.408)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.6.1.408)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.6.1.408)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.6.1.408)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.6.1.408)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.6.1.408)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.6.1.408)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.6.1.408)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.6.1.408)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.6.1.408)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.6.1.408)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.6.1.408)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.6.1.408)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.6.1.408)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.6.1.408)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.6.1.408)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.6.1.408)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.6.1.408)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.6.1.408)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.6.1.408)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.6.1.408)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.6.1.408)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.6.1.408)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.6.1.408)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.6.1.408)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.6.1.408)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.6.1.408)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.6.1.408)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.6.1.408)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.6.1.408)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.6.1.408)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.6.1.408)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.6.1.408)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.

member	type	description
p_nbi_icrh	scenario_ref (7.9.6.1.408)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (3058)

7.9.6.1.400 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.6.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.6.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (3387) I scenario_configuration:ecrh_harm (3387) I scenario_configuration:ecrh_mode (3387) I scenario_configuration:grad_b_drift (3387) I scenario_itb:itb_type (3395)

7.9.6.1.401 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.6.1.408)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.6.1.408)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.6.1.408)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.6.1.408)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.6.1.408)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.6.1.408)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.6.1.408)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.6.1.408)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.6.1.408)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.6.1.408)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.6.1.408)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.6.1.400)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (3058)

7.9.6.1.402 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.6.1.408)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.6.1.408)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.6.1.408)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.6.1.408)	limiter/divertor ion density [m^-3]. Time-dependent.
q_peak_div	scenario_ref (7.9.6.1.408)	Peak power flux on limiter or divertor plate [W.m^-2]. Time-dependent.
q_peak_wall	scenario_ref (7.9.6.1.408)	Peak power flux on the wall [W.m^-2]. Time-dependent.
surf_temp	scenario_ref (7.9.6.1.408)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.6.1.408)	Total power on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.6.1.408)	radiative power in the divertor zone [W]. Time-dependent.
p_neut_div	scenario_ref (7.9.6.1.408)	Neutral pressure in the divertor zone [Pa]; Time-dependent.
p_wall	scenario_ref (7.9.6.1.408)	Total power on the wall [W]. Time-dependent.
wall_temp	scenario_ref (7.9.6.1.408)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.6.1.408)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.6.1.408)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.6.1.408)	flux pump out for each ion species [s^-1]. Time-dependent.
p_rad_fw	scenario_ref (7.9.6.1.408)	Radiated power on the first wall [W]; Time-dependent
p_cond_fw	scenario_ref (7.9.6.1.408)	Conducted/convected power on the first wall [W]; Time-dependent

member	type	description
div_wetted	scenario_ref (7.9.6.1.408)	Divertor wetted area [m^2]; Time-dependent
gas_puff	scenario_ref (7.9.6.1.408)	Gas puff (D/T) in the divertor (PFR) [Pa.m^3.s^-1]; Time-dependent
ar_concentr	scenario_ref (7.9.6.1.408)	Argon concentration in the divertor; Time-dependent
part_exhaust	scenario_ref (7.9.6.1.408)	Assuming a pumping speed [Pa.m^3.s^-1]; Time-dependent
f_inner	scenario_ref (7.9.6.1.408)	Fraction of power to the inner divertor; Time-dependent
f_outer	scenario_ref (7.9.6.1.408)	Fraction of power to the outer divertor; Time-dependent
f_pfr	scenario_ref (7.9.6.1.408)	Fraction of power flowing into the private flux region; Time-dependent
f_rad_fw	scenario_ref (7.9.6.1.408)	Fraction of the divertor radiated power deposited in the main chamber; Time-dependent
q_div	vecflt_type (7.9.6.1.18)	Heat flux on divertor plate [W/m^2]; Vector(theta). Time-dependent
p_cond_div	scenario_ref (7.9.6.1.408)	Conducted/convected power on divertor plate [W]; Time-dependent
pol_ext	float (7.9.6.1.2)	Poloidal extension of the divertor or outer major radius of the divertor region (and inner major radius) [rad]; Scalar
flux_exp	float (7.9.6.1.2)	Flux expansion at the divertor plate ((B_theta/B)midplane)/((B_theta/B)target); Scalar
tilt_angle	float (7.9.6.1.2)	Tilt angle between the field lines and the divertor plate in a poloidal plane [rad]; Scalar
n_div	float (7.9.6.1.2)	Number of divertor, assuming symmetric configuration; Scalar
div_dz	float (7.9.6.1.2)	Divertor extension in z direction from the x-point [m]; Scalar
div_dro	float (7.9.6.1.2)	Divertor extension in r outward direction from the x-point [m]; Scalar
div_dri	float (7.9.6.1.2)	Divertor extension in r intward direction from the x-point [m]; Scalar
p_nh_div	scenario_ref (7.9.6.1.408)	Total nuclear heating in divertor [W]. Time-dependent.

Type of: scenario:lim_div_wall (3058)

7.9.6.1.403 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.6.1.408)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.6.1.408)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.6.1.408)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.6.1.408)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (3058)

7.9.6.1.404 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.6.1.408)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.6.1.408)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.6.1.408)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.6.1.408)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.6.1.408)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.6.1.408)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (3058)

7.9.6.1.405 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.6.1.408)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.6.1.408)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.6.1.408)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.6.1.408)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.6.1.408)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.6.1.408)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.6.1.408)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.

member	type	description
ne_95	scenario_ref (7.9.6.1.408)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.6.1.408)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.6.1.408)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.6.1.408)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.6.1.408)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (3058)

7.9.6.1.406 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.6.1.408)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.6.1.408)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.6.1.408)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.6.1.408)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.6.1.408)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.6.1.408)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.6.1.408)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.6.1.408)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.6.1.408)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.6.1.408)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (3058)

7.9.6.1.407 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.6.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (3058)

7.9.6.1.408 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.6.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.6.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (3385) I scenario_centre:Zmag (3385) I scenario_centre:ne0 (3385) I scenario_centre:ni0 (3385) I scenario_centre:phi0 (3385) I scenario_centre:psi0 (3385) I scenario_centre:q0 (3385) I scenario_centre:shift0 (3385) I scenario_centre:te0 (3385) I scenario_centre:ti0 (3385) I scenario_centre:vtor_0 (3385) I scenario_configuration:LH_freq (3387) I scenario_configuration:LH_npar (3387) I scenario_configuration:ecrh_freq (3387) I scenario_configuration:ecrh_loc (3387) I scenario_configuration:ecrh_pol_ang (3387) I scenario_configuration:ecrh_tor_ang (3387) I scenario_configuration:enb (3387) I scenario_configuration:icrh_freq (3387) I scenario_configuration:icrh_phase (3387) I scenario_configuration:pellet_ang (3387) I scenario_configuration:pellet_nba (3387) I scenario_configuration:pellet_v (3387) I scenario_configuration:r_nbi (3387) I scenario_confinement:tau_cur_diff (3388) I scenario_confinement:tau_e (3388) I scenario_confinement:tau_e_ee (3388) I scenario_confinement:tau_e_ei (3388) I scenario_confinement:tau_e_ii (3388) I scenario_confinement:tau_h_sc (3388) I scenario_confinement:tau_he (3388) I scenario_confinement:tau_i_rol (3388) I scenario_confinement:tau_l_sc (3388) I scenario_currents:RR (3389) I scenario_currents:i_align (3389) I scenario_currents:i_boot (3389) I scenario_currents:i_cd_tot (3389) I scenario_currents:i_eccd (3389) I scenario_currents:i_fast_ion (3389) I scenario_currents:i_fwcd (3389) I scenario_currents:i_lhcd (3389) I scenario_currents:i_nbicd (3389) I scenario_currents:i_ni_tot (3389) I scenario_currents:i_ohm (3389) I scenario_currents:i_par (3389) I scenario_currents:i_runaway (3389) I scenario_currents:v_loop (3389) I scenario_currents:v_meas (3389) I scenario_edge:drho_edge_dt (3390) I scenario_edge:ne_edge (3390) I scenario_edge:neutral_flux (3390) I scenario_edge:ni_edge (3390) I scenario_edge:phi_edge (3390) I scenario_edge:phi_plasma (3390) I scenario_edge:psi_edge (3390) I scenario_edge:q_edge (3390) I scenario_edge:rho_edge (3390) I scenario_edge:te_edge (3390) I scenario_edge:ti_edge (3390) I scenario_edge:vtor_edge (3390) I scenario_energy:dwbpol_dt (3391) I scenario_energy:dwbtorpla_dt (3391) I scenario_energy:dwdia_dt (3391) I scenario_energy:dwth_dt (3391) I scenario_energy:dwtot_dt (3391) I scenario_energy:esup_alpha (3391) I scenario_energy:esup_icrhper (3391) I scenario_energy:esup_icrhtot (3391) I scenario_energy:esup_lhcd (3391) I scenario_energy:esup_nbiperp (3391) I scenario_energy:esup_nbitot (3391) I scenario_energy:w_b_pol (3391) I scenario_energy:w_b_tor_pla (3391) I scenario_energy:w_dia (3391) I scenario_energy:w_th (3391) I scenario_energy:w_tot (3391) I scenario_global:area_ext (3392) I scenario_global:area_pol (3392) I scenario_global:beta_n_th (3392) I scenario_global:beta_normal (3392) I scenario_global:beta_pol (3392) I scenario_global:beta_pol_th (3392) I scenario_global:beta_tor (3392) I scenario_global:beta_tor_th (3392) I scenario_global:dip_dt (3392) I scenario_global:disruption (3392) I scenario_global:ip (3392) I scenario_global:len_sepa (3392) I scenario_global:li (3392) I scenario_global:mode_h (3392) I scenario_global:s_alpha (3392) I scenario_global:volume (3392) I scenario_heat_power:p_l2h_sc (3393) I scenario_heat_power:p_l2h_thr (3393) I scenario_heat_power:p_nbi_icrh (3393) I scenario_heat_power:p_w (3393) I scenario_heat_power:p_wth (3393) I scenario_heat_power:padd_tot (3393) I scenario_heat_power:pbrem (3393) I scenario_heat_power:pcyclo (3393) I scenario_heat_power:pdd_fus (3393) I scenario_heat_power:pecrh (3393) I scenario_heat_power:pecrh_th (3393) I scenario_heat_power:pei (3393) I scenario_heat_power:pel_fus (3393) I scenario_heat_power:pel_icrh (3393) I scenario_heat_power:pel_nbi (3393) I scenario_heat_power:pel_tot (3393) I scenario_heat_power:pfus_dt (3393) I scenario_heat_power:pfus_nbi (3393) I scenario_heat_power:pfus_th (3393) I scenario_heat_power:picrh (3393) I scenario_heat_power:picrh_th (3393) I scenario_heat_power:pion_fus (3393) I scenario_heat_power:pion_icrh (3393) I scenario_heat_power:pion_nbi (3393) I scenario_heat_power:pion_tot (3393) I scenario_heat_power:pioniz (3393) I scenario_heat_power:plh (3393) I scenario_heat_power:plh_th (3393) I scenario_heat_power:ploss (3393) I scenario_heat_power:ploss_fus (3393) I scenario_heat_power:ploss_icrh (3393) I scenario_heat_power:ploss_nbi (3393) I scenario_heat_power:pnbi (3393) I scenario_heat_power:pnbi_co_cur (3393) I scenario_heat_power:pnbi_counter (3393) I scenario_heat_power:pnbi_th (3393) I scenario_heat_power:pohmic (3393) I scenario_heat_power:prad (3393) I scenario_itb:h_itb (3395) I scenario_itb:ne_itb (3395) I scenario_itb:ni_itb (3395) I scenario_itb:phi_itb (3395) I scenario_itb:psi_itb (3395) I scenario_itb:q_min (3395) I scenario_itb:rho_itb (3395) I scenario_itb:te_itb (3395) I scenario_itb:ti_itb (3395) I scenario_itb:vtor_itb (3395) I scenario_itb:width_itb (3395) I scenario_lim_div_wall:ar_concer (3396) I scenario_lim_div_wall:detach_state (3396) I scenario_lim_div_wall:div_wetted (3396) I scenario_lim_div_wall:f_inner (3396) I scenario_lim_div_wall:f_outer (3396) I scenario_lim_div_wall:f_pfr (3396) I scenario_lim_div_wall:f_rad_fw (3396) I scenario_lim_div_wall:gas_puff (3396) I scenario_lim_div_wall:ne_lim_div (3396) I scenario_lim_div_wall:ni_lim_div (3396) I scenario_lim_div_wall:p_cond_div (3396) I scenario_lim_div_wall:p_cond_fw (3396) I scenario_lim_div_wall:p_lim_div (3396) I scenario_lim_div_wall:p_neut_div (3396) I scenario_lim_div_wall:p_nh_div (3396) I scenario_lim_div_wall:p_rad_div (3396) I scenario_lim_div_wall:p_rad_fw (3396) I scenario_lim_div_wall:p_wall (3396) I scenario_lim_div_wall:part_exhaust (3396) I scenario_lim_div_wall:pump_flux (3396) I scenario_lim_div_wall:q_peak_div (3396) I scenario_lim_div_wall:q_peak_wa (3396) I scenario_lim_div_wall:surf_temp (3396) I scenario_lim_div_wall:te_lim_div (3396) I scenario_lim_div_wall:ti_lim_div (3396) I scenario_lim_div_wall:wall_state (3396) I scenario_lim_div_wall:wall_temp (3396) I scenario_line_ave:dne_line_dt (3397) I scenario_line_ave:ne_line (3397) I scenario_line_ave:ne_zeff_line (3397) I scenario_line_ave:zeff_line (3397) I scenario_neutron:ndd_nbi_nbi (3398) I scenario_neutron:ndd_nbi_th (3398) I scenario_neutron:ndd_th (3398) I scenario_neutron:ndd_tot (3398) I scenario_neutron:ndt_th (3398) I scenario_neutron:ndt_tot (3398) I scenario_ninety_five:elor (3399) I scenario_ninety_five:ne_95 (3399) I scenario_ninety_five:ni_95 (3399) I scenario_ninety_five:phi_95 (3399) I scenario_ninety_five:q_95 (3399) I scenario_ninety_five:rho_95 (3399) I scenario_ninety_five:te_95 (3399) I scenario_ninety_five:ti_95 (3399) I scenario_ninety_five:tria_95 (3399) I scenario_ninety_five:tria_lo_95 (3399) I scenario_ninety_five:tria_up_95 (3399) I scenario_ninety_five:vtor_95 (3399) I scenario_pedestal:ne_ped (3400) I scenario_pedestal:ni_ped (3400) I scenario_pedestal:phi_ped (3400) I scenario_pedestal:pressure_ped (3400) I scenario_pedestal:psi_ped (3400) I scenario_pedestal:q_ped (3400) I scenario_pedestal:rho_ped (3400) I scenario_pedestal:te_ped (3400) I scenario_pedestal:ti_ped (3400) I scenario_pedestal:vtor_ped (3400) I scenario_references:bvac_r (3403) I scenario_references:enhancement (3403) I scenario_references:gas_puff (3403) I scenario_references:ip (3403) I scenario_references:isotopic (3403) I scenario_references:nbar (3403) I scenario_references:nbi_td_ratio (3403) I scenario_references:pecrh (3403) I scenario_references:picrh (3403) I scenario_references:plh (3403) I scenario_references:pnbi (3403) I scenario_references:pol_flux (3403) I scenario_references:xecrh (3403) I scenario_references:zeffl (3403) I scenario_sol:gas_puff (3404) I scenario_sol:l_ne_sol (3404) I scenario_sol:l_ni_sol (3404) I scenario_sol:l_qe_sol (3404) I scenario_sol:l_qi_sol (3404) I scenario_sol:l_te_sol (3404) I scenario_sol:l_ti_sol (3404) I scenario_sol:p_rad_sol (3404) I scenario_vol_ave:dne_ave_dt (3405) I scenario_vol_ave:meff_ave (3405) I scenario_vol_ave:ne_ave (3405) I scenario_vol_ave:ni_ave (3405) I scenario_vol_ave:omega_ave (3405) I scenario_vol_ave:pellet_flux (3405) I scenario_vol_ave:te_ave (3405) I scenario_vol_ave:ti_ave (3405) I scenario_vol_ave:ti_o_te_ave (3405) I scenario_vol_ave:zeff_ave (3405)

7.9.6.1.409 scenario_references

References

member	type	description
plh	scenario_ref (7.9.6.1.408)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.6.1.408)	Ion cyclotron resonance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.6.1.408)	electron cyclotron resonance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.6.1.408)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.6.1.408)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.6.1.408)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.6.1.408)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.6.1.408)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.6.1.408)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.6.1.408)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.6.1.408)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.6.1.408)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.6.1.408)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.6.1.408)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (3058)

7.9.6.1.410 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.6.1.408)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.6.1.408)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.6.1.408)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.6.1.408)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.6.1.408)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.6.1.408)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.6.1.408)	radiative power of the SOL [W]. Time-dependent.
p_neut	float (7.9.6.1.2)	Neutral pressure of the SOL [Pa]; Scalar
gas_puff	scenario_ref (7.9.6.1.408)	gas puff flux for each ion species [s^-1]. Time-dependent.
delta_r_in	float (7.9.6.1.2)	Inner gap between the plasma and the first wall [m]; Scalar
delta_r_out	float (7.9.6.1.2)	Outer gap between the plasma and the first wall [m]; Scalar
r_in	float (7.9.6.1.2)	Inner radius of the first wall [m]; Scalar
r_out	float (7.9.6.1.2)	Outer radius of the first wall [m]; Scalar
sol_width	float (7.9.6.1.2)	Width of the SOL (the heat flux is assumed to fall off exponentially in the SOL according to the width parameter) [m]; Scalar

Type of: scenario:sol (3058)

7.9.6.1.411 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.6.1.408)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.6.1.408)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.6.1.408)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.6.1.408)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.6.1.408)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.6.1.408)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.6.1.408)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.6.1.408)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.6.1.408)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.6.1.18)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.6.1.408)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (3058)

7.9.6.1.412 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.6.1.20)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.6.1.377)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.6.1.18)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.6.1.18)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.6.1.18)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.6.1.18)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.6.1.19)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (3087)

7.9.6.1.413 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.6.1.20)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.6.1.20)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.6.1.386)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.6.1.19)	Number of points describing each loop in the "position" matrices. Vector (nloops)

Type of: flux_loops:setup_floops (3217)

7.9.6.1.414 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.6.1.383)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.6.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.6.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.6.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.6.1.383)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.6.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.6.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.6.1.383)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.6.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: fusiondiag_colli_circ:setup_line (3224) I fusiondiag_colli_poly:setup_line (3225) I lineintegraldiag:setup_line (3267)

7.9.6.1.415 setup_line_exp

Geometric description of the lines of sight for line integral diagnostic with additional appinfo tags to have some nodes both in MD and DM

member	type	description
pivot_point	rzphi1Dexperimental (7.9.6.1.385)	Pivot point of each line of sight; Vector (nchords)

member	type	description
horchordang1	vecflt_type (7.9.6.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.6.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.6.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1Dexperimental (7.9.6.1.385)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.6.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.6.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1Dexperimental (7.9.6.1.385)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.6.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: ecesetup:los (3188)

7.9.6.1.416 shield

Shield

member	type	description
inboard	shield_specs (7.9.6.1.417)	Inboard
outboard	shield_specs (7.9.6.1.417)	Outboard

Type of: bb_shield:shield (3020)

7.9.6.1.417 shield_specs

Inboard

member	type	description
nmat	integer (7.9.6.1.3)	Number of materials; Scalar
composition	vecflt_type (7.9.6.1.18)	Inboard or outboard shield radial build the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector(nmat).
r1	float (7.9.6.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
r2	float (7.9.6.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
mass	float (7.9.6.1.2)	Mass of inboard or outboard shield [Kg]; Scalar

Type of: shield:inboard (3410) I shield:outboard (3410)

7.9.6.1.418 simp_apert

Simple aperture specification: rectangular or elliptical

member	type	description
type	identifier (7.9.6.1.254)	Shape identifier; 0: rectangular, 1: elliptical
sizes	vecflt_type (7.9.6.1.18)	Rectangular size a, b or diameters for elliptical shapes [m]; Time-dependent; Vector (2)
angle	float (7.9.6.1.2)	Rotation of aperture around its center [rad]

Type of: reflectometry_radfield_gaussian:aperture (3364)

7.9.6.1.419 solcurdiag_sol_current

Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent

member	type	description
setup	solcurdiag_sol_current_setup (7.9.6.1.420)	diagnostic setup information
measure	exp0D (7.9.6.1.215)	Measured value for the current through the toroidal ring of tiles [A]; Time-dependent; Scalar

Type of: solcurdiag:sol_current (3059)

7.9.6.1.420 solcurdiag_sol_current_setup

diagnostic setup information

member	type	description
name	string (7.9.6.1.4)	Name of the toroidally distributed tile set. String.
id	integer (7.9.6.1.3)	ID of the tile set as a scalar, to be used in connectivity. Integer.
position	rz1D (7.9.6.1.377)	RZ points defining the shape of the toroidal tile set [m]; Vector (npoints)
tiles_turn	integer (7.9.6.1.3)	Number of tiles used to get the full toroidal coverage; Scalar

Type of: solcurdiag_sol_current:setup (3413)

7.9.6.1.421 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	matflt_type (7.9.6.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Array2d (nrho,nzimp)
imp	matflt_type (7.9.6.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Array2d (nrho,nzimp)

Type of: coresource_values:qz (3139) I coresource_values:sz (3139)

7.9.6.1.422 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.6.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.6.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource_values:qi (3139) I coresource_values:si (3139) I coresource_values:ui (3139)

7.9.6.1.423 source_rate

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid	complexgrid (7.9.6.1.103)	Grid for storing the source-rate. Time-dependent; Complexgrid
value	complexgrid_scalar (7.9.6.1.108)	The source-rate of particles in phase space; given on grid [(m/s)^-3 m^-3 s^-1]. Time-dependent; Complexgrid_scalar
discrete	vecint_type (7.9.6.1.19)	List of indexes for the dimensions (coordinates) of grid for which the source is discretely distributed. For example consider a source of 3.5 MeV alpha particles provided on a grid with two coordinates; rho_tor and energy. To specify that the source is given at energies exactly equal to 3.5 MeV, let discret have length 1 and set discrete=(1)=2 since energy is dimension number 2. The source is then proportional to delta(1 - energy / 3.5MeV), where delta is the Direct delta distribution. Discrete dimensions can only be used when the grid is rectangular. Time-dependent; Vector(n_discrete_dimensions)
parameters	parameters (7.9.6.1.329)	Parameters used to defined the grid coordiantes. Time-dependent

Type of: distsource_source:source_rate (3184)

7.9.6.1.424 source_vec

Subtree containing vector source term (radial dimension only)

member	type	description
exp	vecflt_type (7.9.6.1.18)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.6.1.18)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource_values:qe (3139) I coresource_values:se (3139) I coresource_values:ujxb (3139)

7.9.6.1.425 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.6.1.18)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.6.1.18)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.6.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (3121) I profiles1d:qoh (3351)

7.9.6.1.426 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	matflt_type (7.9.6.1.15)	Value of the source term [m^-3.s^-1]; Time-dependent; Array2D (nrho,nzimp)
integral	matflt_type (7.9.6.1.15)	Integral from 0 to rho of the source term. Time-dependent; Array2D(nrho,nzimp)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:source_term (3251)

7.9.6.1.427 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.6.1.15)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.6.1.15)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.6.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (3122)

7.9.6.1.428 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.6.1.4)	Name of species
amn	float (7.9.6.1.2)	Atomic mass number of the species
zn	float (7.9.6.1.2)	Nuclear charge of the impurity
zmin	float (7.9.6.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.6.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (3033)

7.9.6.1.429 species_reference

Defines a reference to a single species in a CPO that includes a compositions structure.

member	type	description
type	identifier (7.9.6.1.254)	The type species: type.flag=1 for electron source; type.flag=2 for ion source taken from compositions/ions; type.flag=3 for impurity source taken from compositions/impur; 4=neutron source; 4=photon source etc (see species_reference_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes).
index	integer (7.9.6.1.3)	Index of the species. This definition of index depends on the value of type; if the species is an ion (type.flag=1) or an impurity (type.flag=2) then the index refers to distribution/compositions/ions, or distribution/compositions/impur, respectively. This field has no meaning for other species, e.g. like electrons, neutrons or photons. The indexing follows the Fortran/Matlab convention where the first element in an array has index 1.

Type of: distri_vec:species (3179) I distsource_source:species (3184)

7.9.6.1.430 spectral

This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.

member	type	description
emissivity	msediag_emissivity (7.9.6.1.296)	Emissivity characteristics.
radiance	msediag_radiance (7.9.6.1.299)	Emissivity characteristics.
codeparam	codeparam (7.9.6.1.98)	Code parameters

Type of: msediag:spectral (3046)

7.9.6.1.431 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.6.1.266)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.6.1.265)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (3042)

7.9.6.1.432 spot

Spot characteristics

member	type	description
size	vecflt_type (7.9.6.1.18)	Size of the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.6.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (3369)

7.9.6.1.433 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	vecflt_type (7.9.6.1.18)	Effective coefficient of physical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.
chemical	vecflt_type (7.9.6.1.18)	Effective coefficient of chemical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:sputtering (3093)

7.9.6.1.434 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
current	exp0D (7.9.6.1.215)	Root mean square current flowing along the strap [A]; Time-Dependent; Float
phase	exp0D (7.9.6.1.215)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.6.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.6.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.6.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float
coord_strap	rz1D (7.9.6.1.377)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (3072)

7.9.6.1.435 structure_cs

Detailed description of the coil structure, for coils that are part of the central solenoid.

member	type	description
gaptf	float (7.9.6.1.2)	gap between CS external radius and TF internal vault radius [m]; Scalar
ri	float (7.9.6.1.2)	CS internal radius [m]; Scalar
re	float (7.9.6.1.2)	CS external radius [m]; Scalar
jcable	float (7.9.6.1.2)	Maximum allowable CS Cable In Conduit current density [A/m^2]; Scalar
current_nom	float (7.9.6.1.2)	Nominal current in the CS conductor [A]; Scalar
sigma	float (7.9.6.1.2)	Maximum allowable stress in the CS [Pa]; Scalar
tiso	float (7.9.6.1.2)	Insulation thickness of CS conductor [m]; Scalar
nlay	float (7.9.6.1.2)	Number of conductor layers in the Central Solenoid; Scalar

Type of: desc_pfcoils:structure_cs (3152)

7.9.6.1.436 t_series_cplx

Time series

member	type	description
time_wind	vecflt_type (7.9.6.1.18)	Time trace [s]; Time-dependent; Vector (n)
values_re	vecflt_type (7.9.6.1.18)	Real part of data; Time-dependent; Vector (n)
values_im	vecflt_type (7.9.6.1.18)	Imaginary part of data; Time-dependent; Vector (n)

Type of: refl_receive:iq_receiver (3361)

7.9.6.1.437 t_series_real

Time series; Time-dependent

member	type	description
time_wind	vecflt_type (7.9.6.1.18)	Time trace [s]; Time-dependent; Vector (n)
values	vecflt_type (7.9.6.1.18)	Values of the sigal; Time-dependent; Vector (n)

Type of: refl_receive:io_signal (3361) I refl_receive:raw_signal (3361)

7.9.6.1.438 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
filled	integer (7.9.6.1.3)	Identifier whether the tables have real data.
table_0d	float (7.9.6.1.2)	NO DOCS
table_1d	vecflt_type (7.9.6.1.18)	NO DOCS
table_2d	matflt_type (7.9.6.1.15)	NO DOCS
table_3d	array3dflt_type (7.9.6.1.7)	NO DOCS

member	type	description
table_4d	array4dflt_type (7.9.6.1.9)	NO DOCS
table_5d	array5dflt_type (7.9.6.1.10)	NO DOCS
table_6d	array6dflt_type (7.9.6.1.11)	NO DOCS
coord1_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 1
coord2_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 2
coord3_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 3
coord4_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 4
coord5_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 5
coord6_str	vecstring_type (7.9.6.1.20)	If needed, an array of strings describing coordinate 6
quality	identifier (7.9.6.1.254)	Characterize the data quality

Type of: tables:table (3433)

7.9.6.1.439 tables

Definition of a process

member	type	description
ndim	integer (7.9.6.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.6.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.6.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.6.1.4)	Unit of the process result
result_trans	integer (7.9.6.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()
zmin	vecint_type (7.9.6.1.19)	Minimum charge state [units of elementary charge]; if equal to zmax then no bundling; Vector(nchargestates)
zmax	vecint_type (7.9.6.1.19)	Maximum charge state [units of elementary charge]; if equal to zmin then no bundling; Vector(nchargestates)
state_label	vecstring_type (7.9.6.1.20)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
table(:)	table (7.9.6.1.438)	Array of data tables, one entry per species. Vector(nchargestates)
data_source	string (7.9.6.1.4)	Filename or subroutine name used to provide this data.
data_provide	string (7.9.6.1.4)	ITM responsible person for this data.
data_citation	string (7.9.6.1.4)	Reference to publication(s).

Type of: amns:tables (3018)

7.9.6.1.440 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords(:)	coords (7.9.6.1.124)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (3018)

7.9.6.1.441 temporary_nt

set of non-timed temporary quantities

member	type	description
float0d(:)	temporary_nt_0dr (7.9.6.1.444)	Constant 0D float
integer0d(:)	temporary_nt_0di (7.9.6.1.443)	Constant 0D integer
complex0d(:)	temporary_nt_0dc (7.9.6.1.442)	Constant 0D complex
string0d(:)	temporary_nt_0ds (7.9.6.1.445)	Constant 0D string
float1d(:)	temporary_nt_1dr (7.9.6.1.448)	Constant 1D float
integer1d(:)	temporary_nt_1di (7.9.6.1.447)	Constant 1D integer
string1d(:)	temporary_nt_1dr (7.9.6.1.448)	Constant 1D string

member	type	description
complex1d(:)	temporary_nt_1dc (7.9.6.1.446)	Constant 1D complex
float2d(:)	temporary_nt_2dr (7.9.6.1.452)	Constant 2D float
integer2d(:)	temporary_nt_2di (7.9.6.1.451)	Constant 2D integer
complex2d(:)	temporary_nt_2dc (7.9.6.1.450)	Constant 2D complex
float3d(:)	temporary_nt_3dr (7.9.6.1.455)	Constant 3D float
integer3d(:)	temporary_nt_3di (7.9.6.1.454)	Constant 3D integer
complex3d(:)	temporary_nt_3dc (7.9.6.1.453)	Constant 3D complex
float4d(:)	temporary_nt_4dr (7.9.6.1.456)	Constant 4D float

Type of: temporary:non_timed (3060)

7.9.6.1.442 temporary_nt_0dc

a non-timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	cplx_type (7.9.6.1.13)	Value. Complex scalar.

Type of: temporary_nt:complex0d (3435)

7.9.6.1.443 temporary_nt_0di

a non-timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	integer (7.9.6.1.3)	Value. integer scalar

Type of: temporary_nt:integer0d (3435)

7.9.6.1.444 temporary_nt_0dr

a non-timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	float (7.9.6.1.2)	Value. Real scalar.

Type of: temporary_nt:float0d (3435)

7.9.6.1.445 temporary_nt_0ds

a non-timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	string (7.9.6.1.4)	Value. String.

Type of: temporary_nt:string0d (3435)

7.9.6.1.446 temporary_nt_1dc

a non-timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	veccplx_type (7.9.6.1.17)	Value. Vector of complex numbers

Type of: temporary_nt:complex1d (3435)

7.9.6.1.447 temporary_nt_1di

a non-timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	vecint_type (7.9.6.1.19)	Value. Vector of integers

Type of: temporary_nt:integer1d (3435)

7.9.6.1.448 temporary_nt_1dr

a non-timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	vecflt_type (7.9.6.1.18)	Value. Vector of float.

Type of: temporary_nt:float1d (3435) I temporary_nt:string1d (3435)

7.9.6.1.449 temporary_nt_1ds

a non-timed temporary quantity of vecstring type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	vecstring_type (7.9.6.1.20)	Value. Vector of strings.

7.9.6.1.450 temporary_nt_2dc

a non-timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matcplx_type (7.9.6.1.14)	Value. Matrix of complex numbers

Type of: temporary_nt:complex2d (3435)

7.9.6.1.451 temporary_nt_2di

a non-timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matint_type (7.9.6.1.16)	Value. Matrix of integers

Type of: temporary_nt:integer2d (3435)

7.9.6.1.452 temporary_nt_2dr

a non-timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matflt_type (7.9.6.1.15)	Value. Matrix of float.

Type of: temporary_nt:float2d (3435)

7.9.6.1.453 temporary_nt_3dc

a non-timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dcplx_type (7.9.6.1.6)	Value. array 3D of complex numbers

Type of: temporary_nt:complex3d (3435)

7.9.6.1.454 temporary_nt_3di

a non-timed temporary quantity of array3dint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dint_type (7.9.6.1.8)	Value. array 3D of integers

Type of: temporary_nt:integer3d (3435)

7.9.6.1.455 temporary_nt_3dr

a non-timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dflt_type (7.9.6.1.7)	Value. array 3D of floats

Type of: temporary_nt:float3d (3435)

7.9.6.1.456 temporary_nt_4dr

a non-timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array4dflt_type (7.9.6.1.9)	Value. array 4D of floats

Type of: temporary_nt:float4d (3435)

7.9.6.1.457 temporary_t

set of timed temporary quantities

member	type	description
float0d(:)	temporary_t_0dr (7.9.6.1.460)	Time-dependent 0D float
integer0d(:)	temporary_t_0di (7.9.6.1.459)	Time-dependent 0D integer.
complex0d(:)	temporary_t_0dc (7.9.6.1.458)	Time-dependent 0D complex.

member	type	description
string0d(:)	temporary_t_0ds (7.9.6.1.461)	Time-dependent 0D string.
float1d(:)	temporary_t_1dr (7.9.6.1.464)	Time-dependent 1D float.
integer1d(:)	temporary_t_1di (7.9.6.1.463)	Time-dependent 1D integer.
complex1d(:)	temporary_t_1dc (7.9.6.1.462)	Time-dependent 1D complex
float2d(:)	temporary_t_2dr (7.9.6.1.467)	Time-dependent 2D float
integer2d(:)	temporary_t_2di (7.9.6.1.466)	Time-dependent 2D integer
complex2d(:)	temporary_t_2dc (7.9.6.1.465)	Time-dependent 2D complex
float3d(:)	temporary_t_3dr (7.9.6.1.470)	Time-dependent 3D float
integer3d(:)	temporary_t_3di (7.9.6.1.469)	Time-dependent 3D integer
complex3d(:)	temporary_t_3dc (7.9.6.1.468)	Time-dependent 3D complex
float4d(:)	temporary_t_4dr (7.9.6.1.471)	Time-dependent 4D float

Type of: temporary:timed (3060)

7.9.6.1.458 temporary_t_0dc

a timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	cplx_type (7.9.6.1.13)	Value. Time-dependent. Complex scalar.

Type of: temporary_t:complex0d (3451)

7.9.6.1.459 temporary_t_0di

a timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	integer (7.9.6.1.3)	Value. Time-dependent. integer scalar

Type of: temporary_t:integer0d (3451)

7.9.6.1.460 temporary_t_0dr

a timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	float (7.9.6.1.2)	Value. Time-dependent. Real scalar.

Type of: temporary_t:float0d (3451)

7.9.6.1.461 temporary_t_0ds

a timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	string (7.9.6.1.4)	Value. Time-dependent. String.

Type of: temporary_t:string0d (3451)

7.9.6.1.462 temporary_t_1dc

a timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	veccplx_type (7.9.6.1.17)	Value. Time-dependent. Vector of complex numbers

Type of: temporary_t:complex1d (3451)

7.9.6.1.463 temporary_t_1di

a timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	vecint_type (7.9.6.1.19)	Value. Time-dependent. Vector of integers

Type of: temporary_t:integer1d (3451)

7.9.6.1.464 temporary_t_1dr

a timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	vecflt_type (7.9.6.1.18)	Value. Time-dependent. Vector of float.

Type of: temporary_t:float1d (3451)

7.9.6.1.465 temporary_t_2dc

a timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matcplx_type (7.9.6.1.14)	Value. Time-dependent. Matrix of complex numbers

Type of: temporary_t:complex2d (3451)

7.9.6.1.466 temporary_t_2di

a timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matint_type (7.9.6.1.16)	Value. Time-dependent. Matrix of integers

Type of: temporary_t:integer2d (3451)

7.9.6.1.467 temporary_t_2dr

a timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	matflt_type (7.9.6.1.15)	Value. Time-dependent. Matrix of float.

Type of: temporary_t:float2d (3451)

7.9.6.1.468 temporary_t_3dc

a timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dcplx_type (7.9.6.1.6)	Value. Time-dependent. array 3D of complex numbers

Type of: temporary_t:complex3d (3451)

7.9.6.1.469 temporary_t_3di

a timed temporary quantity of array3dint type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dint_type (7.9.6.1.8)	Value. Time-dependent. array 3D of integers

Type of: temporary_t:integer3d (3451)

7.9.6.1.470 temporary_t_3dr

a timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array3dflt_type (7.9.6.1.7)	Value. Time-dependent. array 3D of floats

Type of: temporary_t:float3d (3451)

7.9.6.1.471 temporary_t_4dr

a timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.6.1.254)	Identifier.
value	array4dflt_type (7.9.6.1.9)	Value. Time-dependent. array 4D of floats

Type of: temporary_t:float4d (3451)

7.9.6.1.472 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.6.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.6.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.6.1.96)	Circular coil description
planecoil	planecoil (7.9.6.1.348)	Plane coil description
inboard	tf_structure (7.9.6.1.474)	Description of TF inboard structure
outboard	tf_structure (7.9.6.1.474)	Description of TF outboard structure

Type of: toroidfield:desc_tfcoils (3062)

7.9.6.1.473 tf_desc_tfcoils_board

Description of TF inboard/outboard properties

member	type	description
structure	tf_structure (7.9.6.1.474)	TF coil structure

7.9.6.1.474 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.6.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.6.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.6.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.6.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.6.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.6.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.6.1.2)	Amplification factor for magnetic field
ritf	float (7.9.6.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.6.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.6.1.2)	External TF coil radius [m]; Scalar
he_fraction	float (7.9.6.1.2)	Helium fraction (percentage) in TF structure infront of winding package [-]; Scalar
ss_fraction	float (7.9.6.1.2)	Stainless steel 316 fraction (percentage) in TF structure infront of winding package [-]; Scalar
pow_dens_wp	float (7.9.6.1.2)	Peak energy depostion in winding pack [W.m^-3]; Scalar

Type of: tf_desc_tfcoils:inboard (3466) I tf_desc_tfcoils:outboard (3466) I tf_desc_tfcoils_board:structure (3467)

7.9.6.1.475 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.6.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.6.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (3512)

7.9.6.1.476 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.6.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.6.1.11)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.6.1.11)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.6.1.11)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.6.1.11)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.6.1.11)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).
dim6	array6dflt_type (7.9.6.1.11)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.6.1.11)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.6.1.11)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.6.1.477 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.6.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.6.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.6.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.6.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (3026)

7.9.6.1.478 trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.6.1.15)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.6.1.19)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.6.1.15)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.6.1.15)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
phi	matflt_type (7.9.6.1.15)	Toroidal angle of the guiding centre [rad]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.6.1.15)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.6.1.15)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.6.1.15)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.6.1.15)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:trace (3050)

7.9.6.1.479 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.6.1.18)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.6.1.18)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.6.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.6.1.319)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:te_transp (3143) I neoclassic:mtor_neo (3048) I neoclassic:ne_neo (3048) I neoclassic:te_neo (3048)

7.9.6.1.480 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	matflt_type (7.9.6.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array2d (nrho,nzimp)
vconv_eff	matflt_type (7.9.6.1.15)	Effective convection [m.s^-1]. Time-dependent. Array2d (nrho,nzimp)
exchange	matflt_type (7.9.6.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array2d (nrho,nzimp)
flux	matflt_type (7.9.6.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array2d (nrho,nzimp)

member	type	description
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp_values:nz_transp (3143) I coretransp_values:tz_transp (3143) I neoclassic:nz_neo (3048) I neoclassic:tz_neo (3048)

7.9.6.1.481 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.6.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.6.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.6.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.6.1.15)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.6.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.6.1.320)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ti_transp (3143) I neoclassic:ni_neo (3048) I neoclassic:ti_neo (3048)

7.9.6.1.482 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.6.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.6.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.6.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.6.1.320)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.6.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:vtor_transp (3143)

7.9.6.1.483 trap_type

Definition of trap types. Array of structures (number of trap types)

member	type	description
trap_id	identifier (7.9.6.1.254)	Identifier for the trap type
compound	integer (7.9.6.1.3)	Index of the compound doing the trapping. Refers to (local) ../compounds.
gas_species	integer (7.9.6.1.3)	Index of the gas species being trapped. Refers to (local) ../gases.
energy	float (7.9.6.1.2)	Energy depth of the trap [eV]
fill_factor	matflt_type (7.9.6.1.15)	Discretized filling fraction of traps in this layer (0...1) [-]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid
density	matflt_type (7.9.6.1.15)	Discretized density of traps in this layer [1/m^3]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid

Type of: wall_unitsComplexType_layers:trap_type (3502)

7.9.6.1.484 trianglexyz

Triangular surface described by its three corners: point1, point2, and point3. The normal vector of this triangle is defined to be in the direction (point2-point1)x(point3-point1).

member	type	description
point1	xyz0D (7.9.6.1.527)	Point 1 on the triangle
point2	xyz0D (7.9.6.1.527)	Point 2 on the triangle
point3	xyz0D (7.9.6.1.527)	Point 3 on the triangle

Type of: nbi_nbi_unit_wall_surface:triangle (3298)

7.9.6.1.485 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.6.1.216)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.6.1.216)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (3063)

7.9.6.1.486 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.6.1.383)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (3063)

7.9.6.1.487 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.6.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.6.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.6.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
ie_mass	vecflt_type (7.9.6.1.18)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (3064)

7.9.6.1.488 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.6.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.6.1.490)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.6.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.6.1.15)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.6.1.15)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.6.1.15)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.6.1.15)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.6.1.15)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.6.1.15)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.6.1.387)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (3064)

7.9.6.1.489 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.6.1.18)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.6.1.18)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.6.1.18)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.6.1.18)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.6.1.18)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.6.1.18)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.6.1.18)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.6.1.15)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.6.1.15)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.6.1.15)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.6.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.6.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.6.1.15)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.6.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.6.1.15)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (3064)

7.9.6.1.490 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.6.1.18)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.6.1.18)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.6.1.18)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.6.1.18)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.6.1.18)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (3482)

7.9.6.1.491 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.6.1.18)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.6.1.18)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.6.1.18)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.6.1.18)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.6.1.18)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.6.1.18)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.6.1.18)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.6.1.15)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.6.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.6.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.6.1.15)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.6.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.6.1.15)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (3064)

7.9.6.1.492 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.6.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.6.1.18)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.6.1.18)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).

member	type	description
en_mag	vecflt_type (7.9.6.1.18)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.6.1.18)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.6.1.15)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.6.1.18)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.6.1.15)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.6.1.18)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.6.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.6.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.6.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.6.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.6.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.6.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.6.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.6.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (3064)

7.9.6.1.493 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.6.1.18)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.6.1.18)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.6.1.18)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.6.1.18)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.6.1.18)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.6.1.18)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.6.1.18)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.6.1.15)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.6.1.15)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.6.1.15)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (3064)

7.9.6.1.494 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.6.1.18)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.6.1.18)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.6.1.15)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.6.1.15)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.6.1.15)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.6.1.15)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.6.1.15)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.6.1.15)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.6.1.7)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.6.1.7)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.6.1.7)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (3064)

7.9.6.1.495 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.6.1.7)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.6.1.7)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.6.1.7)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.6.1.7)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (3064)

7.9.6.1.496 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.6.1.9)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.6.1.10)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (3064)

7.9.6.1.497 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.6.1.10)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).
fi	array6dflt_type (7.9.6.1.11)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (3064)

7.9.6.1.498 version_ind

Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.

member	type	description
description	vecstring_type (7.9.6.1.20)	Description of each version.
releasedate	string (7.9.6.1.4)	Release date
data_release(:)	data_release (7.9.6.1.153)	For this release, an array over each data item (i.e. shot/run pair containing the actual data) included in this release

Type of: amns:version_ind (3018)

7.9.6.1.499 wall2d

A 2D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas tight vs wall with ports and holes)

member	type	description
wall_id	identifier (7.9.6.1.254)	Use this identifier to tag the type of 2d wall you are using. Use 0 for equilibrium codes (single closed limiter and vessel); 1 for gas-tight walls (disjoint PFCs with inner vessel as last limiter_unit; no vessel structure); 2 for free boundary codes (disjoint PFCs and vessel)
limiter	wall_limiter (7.9.6.1.504)	Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type). Time-dependent
vessel	wall_vessel (7.9.6.1.509)	Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)

member	type	description
plasma(:)	plasmaComplexType (7.9.6.1.349)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.6.1.507)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent

Type of: wall:wall2d (3065)

7.9.6.1.500 wall2d_mhd

Simplified wall that encloses necessary information for RWM codes.

member	type	description
res_wall(:)	mhd_res_wall2d (7.9.6.1.285)	Resistive Wall(s).
ideal_wall	mhd_ideal_wall2d (7.9.6.1.282)	Ideal wall

Type of: wall:wall2d_mhd (3065)

7.9.6.1.501 wall3d

3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent

member	type	description
wall_id	identifier (7.9.6.1.254)	Identify the type of wall - 0 for gas tight and 1 for a wall with holes/open ports
grid	complexgrid (7.9.6.1.103)	Grid description
plasma(:)	plasmaComplexType (7.9.6.1.349)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.6.1.507)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
basis_index	integer (7.9.6.1.3)	Index of basis vectors in wall/wall3d/grid/basis used to define vector quantities e.g. in plasma.

Type of: wall:wall3d (3065)

7.9.6.1.502 wall_blocks

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
blocks_unit(:)	wall_blocks_unit (7.9.6.1.503)	Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

Type of: wall_vessel_unit:blocks (3505)

7.9.6.1.503 wall_blocks_unit

Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

member	type	description
name	string (7.9.6.1.4)	Name or description of the blocks_unit
position	rz1D (7.9.6.1.377)	Position (R,Z coordinates) of a vessel segment. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.6.1.2)	Resistivity of the vessel segment [ohm.m]; Scalar
permeability	float (7.9.6.1.2)	Vessel relative permeability; Scalar
j_phi	float (7.9.6.1.2)	induced currents inside the vessel; time dependent; [A]

member	type	description
resistance	float (7.9.6.1.2)	resistance of block; [Ohm]

Type of: wall_blocks:blocks_unit (3496)

7.9.6.1.504 wall_limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type)

member	type	description
limiter_id	identifier (7.9.6.1.254)	Use this identifier to tag the type of limiter you are using. Use flag=0 for the official single contour limiter and 1 for the official disjoint PFC structure like first wall. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2
limiter_unit(:)	limiter_unit (7.9.6.1.271)	Array of ncomponents limiting surfaces making up the limiter type (single contour or disjoint PFC). Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents). Time-dependent

Type of: wall2d:limiter (3493)

7.9.6.1.505 wall_types

Reference wall type

member	type	description
label	string (7.9.6.1.4)	Label for this reference wall type
layers(:)	wall_types_layers (7.9.6.1.506)	Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

Type of: wall:wall_types (3065)

7.9.6.1.506 wall_types_layers

Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

member	type	description
thickness	float (7.9.6.1.2)	Thickness of layer [m]
chem_comp	vecflt_type (7.9.6.1.18)	Chemical composition of the layer in terms of the chemical compounds defined in wall/design_comp/compounds. Vector of fractional concentrations.

Type of: wall_types:layers (3499)

7.9.6.1.507 wall_unitsComplexType

Data for individual wall elements; Time-dependent

member	type	description
wall_type	integer (7.9.6.1.3)	Definition of reference wall composition for every subgrid of the wall discretization. Vector of integers (number of subgrids). The indices point to wall/wall_types.
n_depo_layer	integer (7.9.6.1.3)	Number of deposited layers (in addition to the engineering layers)
layers(:)	wall_unitsComplexType_layers (7.9.6.1.508)	Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent
eta	complexgrid_scalar (7.9.6.1.108)	Resitivity of wall element described by grid geometry [Ohm.m]
permeability	complexgrid_scalar (7.9.6.1.108)	Relative permeability of wall element described by grid geometry [-]
j	complexgrid_vector (7.9.6.1.114)	Current density vector in the element specified by the grid representation. [A/m^2]

Type of: wall2d:wall_state (3493) I wall3d:wall_state (3495)

7.9.6.1.508 wall_unitsComplexType_layers

Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent

member	type	description
elements	vecint_type (7.9.6.1.19)	List of elements present in the solid phase in this layer. Vector (number of elements). Holds indices pointing to wall/elements
gases	vecint_type (7.9.6.1.19)	List of gases present in this layer. Vector (number of gases). Holds indices pointing to wall/elements
compounds	vecint_type (7.9.6.1.19)	List of compounds present in the solid phase in this layer. Vector (number of compounds). Holds indices pointing to wall/compounds
density	matflt_type (7.9.6.1.15)	Discretized density distribution in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
dx	matflt_type (7.9.6.1.15)	Size of the vertical cells in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
thickness	vecflt_type (7.9.6.1.18)	Total size of the layer [m] (i.e. sum of dx over the number of vertical cells in the layer); Time-dependent; Vector (number of discretization elements in the subgrid)
roughness	array3dflt_type (7.9.6.1.7)	Interface roughness description between the discrete elements and their top neighbour (i.e. towards the plasma); Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of roughness parameter); Roughness parameter 1: RMS height [m], parameter 2: wavelength along projection of B on the surface [m], parameter 3: wavelength perpendicular to projection of B on the surface [m]. If only two parameters are given the parameters are assumed to be isotropic
porosity	array3dflt_type (7.9.6.1.7)	Discrete description of porosity of the layer. Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of porosity parameter); Porosity parameter 1: Volume fraction occupied by the pores [-], parameter 2: average size of the pores [m]
dpa	matflt_type (7.9.6.1.15)	Discretized number of displacements per atom in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
temperature	matflt_type (7.9.6.1.15)	Discretized temperature distribution in the layer of the discrete wall elements in the subgrid [eV]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
element_frac	array3dflt_type (7.9.6.1.7)	Fractional abundance of elements in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical elements as given in (local) elements, number of vertical cells in layer, number of discretization elements in the subgrid)
chem_comp	array3dflt_type (7.9.6.1.7)	Fractional abundance of chemical compounds in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical compounds as given in (local) compounds, number of vertical cells in layer, number of discretization elements in the subgrid)
bulk_D	array4dflt_type (7.9.6.1.9)	Diffusivity of gas species in bulks of different compounds [m^2/s]; Time-dependent; 4d float array. Dimensions: 1. index of compound (indexing as in (local) compounds), 2. index of gas element (indexing as in (local) gases), 3. cell index of 1d layer height discretization, 4. number of discretization elements in the subgrid
surface_D	array4dflt_type (7.9.6.1.9)	Diffusivity of hydrogen species of surface of different compounds [m^2/s]; Time-dependent; Dimensions: see bulk_D
bulk_solute	array4dflt_type (7.9.6.1.9)	Bulk mobile (solute) concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surf_solute	array4dflt_type (7.9.6.1.9)	Surface mobile (solute) concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
pore_content	array3dflt_type (7.9.6.1.7)	Amount of gas species trapped in pores per cubic meter [1/m^3]; Time-dependent; 3d float array. Dimensions: 1. index of gas element (indexing as in (local) gases), 2. cell index of 1d layer height discretization, 3. number of discretization element in the subgrid
trap_type(:)	trap_type (7.9.6.1.483)	Definition of trap types. Array of structures (number of trap types)

Type of: wall_unitsComplexType:layers (3501)

7.9.6.1.509 wall_vessel

Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)

member	type	description
vessel_id	identifier (7.9.6.1.254)	Use this identifier to tag the type of vessel you are using. Use flag=0 for the official single/multiple annular vessel and 1 for the official block element representation for each vessel unit. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2

member	type	description
vessel_unit(:)	wall_vessel_unit (7.9.6.1.511)	Array of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall2d:vessel (3493)

7.9.6.1.510 wall_vessel_annular

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
name	string (7.9.6.1.4)	Name or description of the vessel_unit
inside	rz1D (7.9.6.1.377)	Inner Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
outside	rz1D (7.9.6.1.377)	Outer Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_outer)
eta	float (7.9.6.1.2)	Vessel resistivity [ohm.m]; Scalar
permeability	float (7.9.6.1.2)	Vessel relative permeability; Scalar

Type of: wall_vessel_unit:annular (3505)

7.9.6.1.511 wall_vessel_unit

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
annular	wall_vessel_annular (7.9.6.1.510)	Annular representation of a vessel layer by two free-hand contours.
blocks	wall_blocks (7.9.6.1.502)	Block element representation of vessel units. Each vessel unit is decomposed in elementary small units (blocks) caracyerized by a position, resistivity and relative permeability.
radial_build	wall_wall2d_vessel_radial_build (7.9.6.1.514)	Simple description of this vessel unit for the radial_build in system codes

Type of: wall_vessel:vessel_unit (3503)

7.9.6.1.512 wall_wall0d

Simple 0D description of plasma-wall interaction

member	type	description
pumping_speed	vecflt_type (7.9.6.1.18)	pumping speed; Time-dependent. vector(nneut); [particles/s]
gas_puff	vecflt_type (7.9.6.1.18)	gas puff; vector(nneut); Time-dependent. [particles/s]
wall_inventory	vecflt_type (7.9.6.1.18)	wall inventory; vector(nneut); Time-dependent. [particles]
recycling_coefficient	vecflt_type (7.9.6.1.18)	Recycling coefficient. Vector(nneut) Time-dependent.
wall_temperature	float (7.9.6.1.2)	Wall temperature [K]. Time-dependent. Scalar
power_from_plasma	float (7.9.6.1.2)	Power flowing from the plasma to the wall [W]. Time-dependent. Scalar
power_to_cooling	float (7.9.6.1.2)	Power to cooling systems [W]. Time-dependent. Scalar
plasma	wall_wall0d_plasma (7.9.6.1.513)	NO DOCS

Type of: wall:wall0d (3065)

7.9.6.1.513 wall_wall0d_plasma

member	type	description
species_index	matint_type (7.9.6.1.16)	Index of species into wall/compositions; matrix(nspecies,3); 1st element indicates {1: main ions; 2:impurities; 3:neutrals; 4:edge species); 2nd element indicates index into that array; 3rd index indicates charge state if 1st element points to inpurities or neutral type if 1st element points to neutrals;
flux	vecflt_type (7.9.6.1.18)	flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [particles/s]
energy	vecflt_type (7.9.6.1.18)	energy flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [W]

Type of: wall_wall0d:plasma (3506)

7.9.6.1.514 wall_wall2d_vessel_radial_build

Simple description of this vessel unit for the radial_build in system codes

member	type	description
r1_inb	float (7.9.6.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r2_inb	float (7.9.6.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r1_outb	float (7.9.6.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
r2_outb	float (7.9.6.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
raddim	float (7.9.6.1.2)	Radial thickness of the vacuum vessel; Scalar
nmat	float (7.9.6.1.2)	Number of materials; Scalar
composition	vecflt_type (7.9.6.1.18)	Inboard shield radial build giving the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector
pow_dens_inb	float (7.9.6.1.2)	Peak energy depostion in vaccum vessel inboard [W.m^-3]; Scalar
pow_dens_outb	float (7.9.6.1.2)	Peak energy depostion in vaccum vessel outboard [W.m^-3]; Scalar
fn_flux_inb	float (7.9.6.1.2)	Fast neutron flux in vaccum vessel inboard [m^2.s^-1]; Scalar
fn_flux_outb	float (7.9.6.1.2)	Fast neutron flux in vaccum vessel outboard [m^2.s^-1]; Scalar

Type of: wall_vessel_unit:radial_build (3505)

7.9.6.1.515 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.6.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.6.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.6.1.19)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.6.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.6.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.6.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.6.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.6.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.6.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.6.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.6.1.18)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.6.1.18)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (3288)

7.9.6.1.516 waves_global_param

Global wave deposition parameters

member	type	description
name	string (7.9.6.1.4)	Antenna name, String
type	string (7.9.6.1.4)	Wave type (LH, EC, IC, ...), String
f_assumption	vecint_type (7.9.6.1.19)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
code_type	integer (7.9.6.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
frequency	float (7.9.6.1.2)	Wave frequency [Hz]; Time-dependent, floating
ntor	vecint_type (7.9.6.1.19)	Toroidal mode numbers; Time-dependent; Vector (ntor)
power_tot	float (7.9.6.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.6.1.18)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_e	float (7.9.6.1.2)	Wave power absorbed by the thermal electrons [W]; Time-dependent; Float
pow_i	vecflt_type (7.9.6.1.18)	Wave power absorbed by the thermal ion species [W]; Time-dependent; Vector (nion)
pow_z	matflt_type (7.9.6.1.15)	Wave power absorbed by the thermal impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_fe	float (7.9.6.1.2)	Wave power absorbed by the fast electrons [W]; Time-dependent; Float
pow_fi	vecflt_type (7.9.6.1.18)	Wave power absorbed by the fast ion species [W]; Time-dependent; Vector (nion)
pow_fz	matflt_type (7.9.6.1.15)	Wave power absorbed by the fast impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_ntor_e	vecflt_type (7.9.6.1.18)	Wave power absorbed by the thermal electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_i	matflt_type (7.9.6.1.15)	Wave power absorbed by an the thermal ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)
pow_ntor_z	array3dflt_type (7.9.6.1.7)	Wave power absorbed by an the thermal impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
pow_ntor_fe	vecflt_type (7.9.6.1.18)	Wave power absorbed by the fast electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_fi	matflt_type (7.9.6.1.15)	Wave power absorbed by an the fast ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)
pow_ntor_fz	array3dflt_type (7.9.6.1.7)	Wave power absorbed by an the fast impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
cur_tor	float (7.9.6.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.6.1.18)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
mag_axis	rz0D (7.9.6.1.376)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.6.1.80)	Characteristics of the vacuum toroidal field (used to define the rho_tor coordinate and the normalisation of parallel current densities).

Type of: coherentwave:global_param (3094)

7.9.6.1.517 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor	vecflt_type (7.9.6.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.6.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.6.1.18)	Poloidal flux function [Wb], evaluated without 1/2pi, such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.6.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.6.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (3094)

7.9.6.1.518 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.6.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.

member	type	description
rho_tor_norm	matflt_type (7.9.6.1.15)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface (or last available fluxsurface from a fix boundary equilibrium code). Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.6.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.6.1.15)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.6.1.15)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.6.1.15)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.6.1.15)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.6.1.475)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (3094)

7.9.6.1.519 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.6.1.18)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.6.1.18)	Flux surface averaged absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.6.1.15)	Flux surface averaged absorbed wave power density on the thermal ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_z	array3dflt_type (7.9.6.1.7)	Flux surface averaged absorbed wave power density on the thermal impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)
powd_fe	vecflt_type (7.9.6.1.18)	Flux surface averaged absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_fi	matflt_type (7.9.6.1.15)	Flux surface averaged absorbed wave power density on the fast ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_fz	array3dflt_type (7.9.6.1.7)	Flux surface averaged absorbed wave power density on the fast impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)
powd_ntor	matflt_type (7.9.6.1.15)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.6.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.6.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_z	array4dflt_type (7.9.6.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
powd_ntor_fe	matflt_type (7.9.6.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_fi	array3dflt_type (7.9.6.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_fz	array4dflt_type (7.9.6.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_tor	vecflt_type (7.9.6.1.18)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.6.1.15)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.6.1.18)	Cumulative volume integral of the absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.6.1.18)	Cumulative volume integral of the absorbed wave power on the thermal electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.6.1.15)	Cumulative volume integral of the absorbed wave power on the thermal ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_z	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power on the thermal impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_fe	vecflt_type (7.9.6.1.18)	Cumulative volume integral of the absorbed wave power on the fast electrons [W]; Time-dependent; Vector (npsi)
pow_fi	matflt_type (7.9.6.1.15)	Cumulative volume integral of the absorbed wave power on the fast ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_fz	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power on the fast impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_ntor	matflt_type (7.9.6.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.6.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the thermal electrons [W]; Time-dependent; Matrix (npsi, ntor)

member	type	description
pow_ntor_i	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_z	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
pow_ntor_fe	matflt_type (7.9.6.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the fast electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_fi	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_fz	array3dflt_type (7.9.6.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_par	vecflt_type (7.9.6.1.18)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.6.1.15)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.6.1.18)	Wave driven toroidal current inside a flux surface [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.6.1.15)	Wave driven toroidal current inside a flux surface for each toroidal mode number [A]; Time-dependent; Matrix (npsi, ntor)
e_plus_ave	matflt_type (7.9.6.1.15)	The left hand polarised electric field component, E_plus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_plus_ave = ave(E_plus P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_minus_ave	matflt_type (7.9.6.1.15)	The right hand polarised electric field component, E_minus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_minus_ave = ave(E_minus P) / ave(P), where (*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_para_ave	matflt_type (7.9.6.1.15)	The parallel electric field component, E_para [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_para_ave = ave(E_para P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
k_perp_ave	matflt_type (7.9.6.1.15)	The perpendicular wave number, k_perp [1/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that k_perp_ave = ave(k_perp P) / (P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (3094)

7.9.6.1.520 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.6.1.15)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.6.1.15)	Absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.6.1.7)	Absorbed wave power density on each thermal ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_z	array4dflt_type (7.9.6.1.9)	Absorbed wave power density on each thermal impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_fe	matflt_type (7.9.6.1.15)	Absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_fi	array3dflt_type (7.9.6.1.7)	Absorbed wave power density on each fast ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_fz	array4dflt_type (7.9.6.1.9)	Absorbed wave power density on each fast impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_ntor	array3dflt_type (7.9.6.1.7)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.6.1.7)	Absorbed power density for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.6.1.9)	Absorbed power density for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_z	array5dflt_type (7.9.6.1.10)	Absorbed power density for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_ntor_fe	array3dflt_type (7.9.6.1.7)	Absorbed power density for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_fi	array4dflt_type (7.9.6.1.9)	Absorbed power density for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_fz	array5dflt_type (7.9.6.1.10)	Absorbed power density for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_iharm	array5dflt_type (7.9.6.1.10)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (3094)

7.9.6.1.521 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.6.1.18)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.6.1.18)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.6.1.18)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.6.1.18)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.6.1.18)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (3081)

7.9.6.1.522 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.6.1.18)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.6.1.18)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.6.1.18)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent
npar	vecflt_type (7.9.6.1.18)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.6.1.18)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.6.1.18)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.6.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (3081)

7.9.6.1.523 weighted_markers

Array of NMARK weighted markers in NDIM dimensions

member	type	description
variable_ids(:)	identifier (7.9.6.1.254)	Identifier for the variable_ids stored in the coord matrix (see coordinate_identifier_definitions in the Documentation website under Conventions/Enumerated_datatypes). Vector(NDIM)
coord	matflt_type (7.9.6.1.15)	Coordinates of the markers. The coordinates used is specified in variable_ids. Time-dependent; Float(NMARK,NDIM)
weight	vecflt_type (7.9.6.1.18)	Weight of the marker; number of real particles represented by the marker. Time-dependent; Float(NMARK)

Type of: dist_func:markers (3160) I distsource_source:markers (3184)

7.9.6.1.524 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.6.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.6.1.4)	Name of the device
shot	integer (7.9.6.1.3)	Shot number
run	integer (7.9.6.1.3)	Run number
occurrence	integer (7.9.6.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (3148)

7.9.6.1.525 width

Angular width of each in the poloidal and toroidal direction;

member	type	description
dtheta	vecflt_type (7.9.6.1.18)	Angular poloidal width of holes; Vector (n_holes)
phi	vecflt_type (7.9.6.1.18)	Angular toroidal width of holes; Vector (n_holes)

Type of: holes:width (3247)

7.9.6.1.526 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.6.1.377)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.6.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.6.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.6.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.6.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.6.1.18)	chiˆ2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (3202)

7.9.6.1.527 xyz0D

Structure for a single (x,y,z) position (0D)

member	type	description
x	float (7.9.6.1.2)	Spatial coordinate x [m]
y	float (7.9.6.1.2)	Spatial coordinate y [m]
z	float (7.9.6.1.2)	Spatial coordinate z [m]

Type of: flat_polygon:basis1 (3215) I flat_polygon:basis2 (3215) I flat_polygon:origin (3215) I rectanglexyz:point01 (3358) I rectanglexyz:point10 (3358) I rectanglexyz:point11 (3358) I trianglexyz:point1 (3478) I trianglexyz:point2 (3478) I trianglexyz:point3 (3478) itmtypes [565]

7.9.6.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.6.2.1 Fortran

7.9.6.2.2 amns

datainfo (3018)	amns%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	amns%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	amns%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	amns%datainfo%source (string) (7.9.6.1.4)
comment (3148)	amns%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	amns%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	amns%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	amns%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	amns%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	amns%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	amns%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	amns%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	amns%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	amns%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	amns%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	amns%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	amns%datainfo%putinfo%putaccess (string) (7.9.6.1.4)

[565] https://www.efda-itm.eu/ITM/html/itmtypes__4.10b.8.html

putlocation (3354)	amns%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	amns%datainfo%putinfo%rights (string) (7.9.6.1.4)
version (3018)	amns%version (string) (7.9.6.1.4)
source (3018)	amns%source (string) (7.9.6.1.4)
zn (3018)	amns%zn (integer) (7.9.6.1.3)
amn (3018)	amns%amn (float) (7.9.6.1.2)
process (3018)	amns%process(:) (amns_processType) (7.9.6.1.74)
proc_label (3068)	amns%process(:)%proc_label (string) (7.9.6.1.4)
reactant (3068)	amns%process(:)%reactant(:) (reacprodType) (7.9.6.1.362)
label (3356)	amns%process(:)%reactant(:)%label (string) (7.9.6.1.4)
constituents (3356)	amns%process(:)%reactant(:)%constituents(:) (amns_constituentType) (7.9.6.1.73)
label (3067)	amns%process(:)%reactant(:)%constituents(:)%label (string) (7.9.6.1.4)
zn (3067)	amns%process(:)%reactant(:)%constituents(:)%zn (integer) (7.9.6.1.3)
mn (3067)	amns%process(:)%reactant(:)%constituents(:)%mn (integer) (7.9.6.1.3)
multiplicity (3067)	amns%process(:)%reactant(:)%constituents(:)%multiplicity (float) (7.9.6.1.2)
role (3356)	amns%process(:)%reactant(:)%role (identifier) (7.9.6.1.254)
id (3248)	amns%process(:)%reactant(:)%role%id (string) (7.9.6.1.4)
flag (3248)	amns%process(:)%reactant(:)%role%flag (integer) (7.9.6.1.3)
description (3248)	amns%process(:)%reactant(:)%role%description (string) (7.9.6.1.4)
amn (3356)	amns%process(:)%reactant(:)%amn (float) (7.9.6.1.2)
relative (3356)	amns%process(:)%reactant(:)%relative (integer) (7.9.6.1.3)
za (3356)	amns%process(:)%reactant(:)%za (float) (7.9.6.1.2)
multiplicity (3356)	amns%process(:)%reactant(:)%multiplicity (float) (7.9.6.1.2)
metastable (3356)	amns%process(:)%reactant(:)%metastable (vecint_type) (7.9.6.1.19)
metastable_label (3356)	amns%process(:)%reactant(:)%metastable_label (string) (7.9.6.1.4)
product (3068)	amns%process(:)%product(:) (reacprodType) (7.9.6.1.362)
label (3356)	amns%process(:)%product(:)%label (string) (7.9.6.1.4)
constituents (3356)	amns%process(:)%product(:)%constituents(:) (amns_constituentType) (7.9.6.1.73)
label (3067)	amns%process(:)%product(:)%constituents(:)%label (string) (7.9.6.1.4)
zn (3067)	amns%process(:)%product(:)%constituents(:)%zn (integer) (7.9.6.1.3)
mn (3067)	amns%process(:)%product(:)%constituents(:)%mn (integer) (7.9.6.1.3)
multiplicity (3067)	amns%process(:)%product(:)%constituents(:)%multiplicity (float) (7.9.6.1.2)
role (3356)	amns%process(:)%product(:)%role (identifier) (7.9.6.1.254)
id (3248)	amns%process(:)%product(:)%role%id (string) (7.9.6.1.4)
flag (3248)	amns%process(:)%product(:)%role%flag (integer) (7.9.6.1.3)
description (3248)	amns%process(:)%product(:)%role%description (string) (7.9.6.1.4)
amn (3356)	amns%process(:)%product(:)%amn (float) (7.9.6.1.2)
relative (3356)	amns%process(:)%product(:)%relative (integer) (7.9.6.1.3)
za (3356)	amns%process(:)%product(:)%za (float) (7.9.6.1.2)
multiplicity (3356)	amns%process(:)%product(:)%multiplicity (float) (7.9.6.1.2)
metastable (3356)	amns%process(:)%product(:)%metastable (vecint_type) (7.9.6.1.19)
metastable_label (3356)	amns%process(:)%product(:)%metastable_label (string) (7.9.6.1.4)
sup_string (3068)	amns%process(:)%sup_string (string) (7.9.6.1.4)
sup_real (3068)	amns%process(:)%sup_real (float) (7.9.6.1.2)
sup_int (3068)	amns%process(:)%sup_int (integer) (7.9.6.1.3)
quality (3068)	amns%process(:)%quality (identifier) (7.9.6.1.254)
id (3248)	amns%process(:)%quality%id (string) (7.9.6.1.4)
flag (3248)	amns%process(:)%quality%flag (integer) (7.9.6.1.3)
description (3248)	amns%process(:)%quality%description (string) (7.9.6.1.4)
err_proc_label (3068)	amns%process(:)%err_proc_label (string) (7.9.6.1.4)
tables (3018)	amns%tables(:) (tables) (7.9.6.1.439)
ndim (3433)	amns%tables(:)%ndim (integer) (7.9.6.1.3)
coord_index (3433)	amns%tables(:)%coord_index (integer) (7.9.6.1.3)
result_label (3433)	amns%tables(:)%result_label (string) (7.9.6.1.4)
result_unit (3433)	amns%tables(:)%result_unit (string) (7.9.6.1.4)
result_trans (3433)	amns%tables(:)%result_trans (integer) (7.9.6.1.3)
zmin (3433)	amns%tables(:)%zmin (vecint_type) (7.9.6.1.19)
zmax (3433)	amns%tables(:)%zmax (vecint_type) (7.9.6.1.19)
state_label (3433)	amns%tables(:)%state_label (vecstring_type) (7.9.6.1.20)
table (3433)	amns%tables(:)%table(:) (table) (7.9.6.1.438)
filled (3432)	amns%tables(:)%table(:)%filled (integer) (7.9.6.1.3)

table_0d (3432)	amns%tables(:)%table(:)%table_0d (float) (7.9.6.1.2)
table_1d (3432)	amns%tables(:)%table(:)%table_1d (vecflt_type) (7.9.6.1.18)
table_2d (3432)	amns%tables(:)%table(:)%table_2d (matflt_type) (7.9.6.1.15)
table_3d (3432)	amns%tables(:)%table(:)%table_3d (array3dflt_type) (7.9.6.1.7)
table_4d (3432)	amns%tables(:)%table(:)%table_4d (array4dflt_type) (7.9.6.1.9)
table_5d (3432)	amns%tables(:)%table(:)%table_5d (array5dflt_type) (7.9.6.1.10)
table_6d (3432)	amns%tables(:)%table(:)%table_6d (array6dflt_type) (7.9.6.1.11)
coord1_str (3432)	amns%tables(:)%table(:)%coord1_str (vecstring_type) (7.9.6.1.20)
coord2_str (3432)	amns%tables(:)%table(:)%coord2_str (vecstring_type) (7.9.6.1.20)
coord3_str (3432)	amns%tables(:)%table(:)%coord3_str (vecstring_type) (7.9.6.1.20)
coord4_str (3432)	amns%tables(:)%table(:)%coord4_str (vecstring_type) (7.9.6.1.20)
coord5_str (3432)	amns%tables(:)%table(:)%coord5_str (vecstring_type) (7.9.6.1.20)
coord6_str (3432)	amns%tables(:)%table(:)%coord6_str (vecstring_type) (7.9.6.1.20)
quality (3432)	amns%tables(:)%table(:)%quality (identifier) (7.9.6.1.254)
id (3248)	amns%tables(:)%table(:)%quality%id (string) (7.9.6.1.4)
flag (3248)	amns%tables(:)%table(:)%quality%flag (integer) (7.9.6.1.3)
description (3248)	amns%tables(:)%table(:)%quality%description (string) (7.9.6.1.4)
data_source (3433)	amns%tables(:)%data_source (string) (7.9.6.1.4)
data_provide (3433)	amns%tables(:)%data_provide (string) (7.9.6.1.4)
data_citation (3433)	amns%tables(:)%data_citation (string) (7.9.6.1.4)
tables_coord (3018)	amns%tables_coord(:) (tables_coord) (7.9.6.1.440)
coords (3434)	amns%tables_coord(:)%coords(:) (coords) (7.9.6.1.124)
coord (3118)	amns%tables_coord(:)%coords(:)%coord (vecflt_type) (7.9.6.1.18)
coord_label (3118)	amns%tables_coord(:)%coords(:)%coord_label (vecstring_type) (7.9.6.1.20)
extrap_type (3118)	amns%tables_coord(:)%coords(:)%extrap_type (vecint_type) (7.9.6.1.19)
interp_type (3118)	amns%tables_coord(:)%coords(:)%interp_type (integer) (7.9.6.1.3)
label (3118)	amns%tables_coord(:)%coords(:)%label (string) (7.9.6.1.4)
unit (3118)	amns%tables_coord(:)%coords(:)%unit (string) (7.9.6.1.4)
transform (3118)	amns%tables_coord(:)%coords(:)%transform (integer) (7.9.6.1.3)
spacing (3118)	amns%tables_coord(:)%coords(:)%spacing (integer) (7.9.6.1.3)
version_ind (3018)	amns%version_ind(:) (version_ind) (7.9.6.1.498)
description (3492)	amns%version_ind(:)%description (vecstring_type) (7.9.6.1.20)
releasedate (3492)	amns%version_ind(:)%releasedate (string) (7.9.6.1.4)
data_release (3492)	amns%version_ind(:)%data_release(:) (data_release) (7.9.6.1.153)
shot (3147)	amns%version_ind(:)%data_release(:)%shot (integer) (7.9.6.1.3)
run (3147)	amns%version_ind(:)%data_release(:)%run (integer) (7.9.6.1.3)
description (3147)	amns%version_ind(:)%data_release(:)%description (vecstring_type) (7.9.6.1.20)
codeparam (3018)	amns%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	amns%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	amns%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	amns%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	amns%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	amns%codeparam%output_flag (integer) (7.9.6.1.3)
time (3018)	amns%time (float) (7.9.6.1.2)

7.9.6.2.3 antennas

datainfo (3019)	antennas%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	antennas%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	antennas%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	antennas%datainfo%source (string) (7.9.6.1.4)
comment (3148)	antennas%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	antennas%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	antennas%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	antennas%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	antennas%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	antennas%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	antennas%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	antennas%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	antennas%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	antennas%datainfo%whatref%occurrence (integer) (7.9.6.1.3)

putinfo (3148)	antennas%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	antennas%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	antennas%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	antennas%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	antennas%datainfo%putinfo%rights (string) (7.9.6.1.4)
antenna_ec (3019)	antennas%antenna_ec(:) (antenna_ec) (7.9.6.1.75)
name (3069)	antennas%antenna_ec(:)%name (string) (7.9.6.1.4)
frequency (3069)	antennas%antenna_ec(:)%frequency (float) (7.9.6.1.2)
power (3069)	antennas%antenna_ec(:)%power (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_ec(:)%power%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_ec(:)%power%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_ec(:)%power%relerror (float) (7.9.6.1.2)
mode (3069)	antennas%antenna_ec(:)%mode (integer) (7.9.6.1.3)
position (3069)	antennas%antenna_ec(:)%position (rzphi0D) (7.9.6.1.382)
r (3376)	antennas%antenna_ec(:)%position%r (float) (7.9.6.1.2)
z (3376)	antennas%antenna_ec(:)%position%z (float) (7.9.6.1.2)
phi (3376)	antennas%antenna_ec(:)%position%phi (float) (7.9.6.1.2)
launchangles (3069)	antennas%antenna_ec(:)%launchangles (launchangles) (7.9.6.1.264)
alpha (3258)	antennas%antenna_ec(:)%launchangles%alpha (float) (7.9.6.1.2)
beta (3258)	antennas%antenna_ec(:)%launchangles%beta (float) (7.9.6.1.2)
beam (3069)	antennas%antenna_ec(:)%beam (rfbeam) (7.9.6.1.375)
spot (3369)	antennas%antenna_ec(:)%beam%spot (spot) (7.9.6.1.432)
size (3426)	antennas%antenna_ec(:)%beam%spot%size (vecflt_type) (7.9.6.1.18)
angle (3426)	antennas%antenna_ec(:)%beam%spot%angle (float) (7.9.6.1.2)
phaseellipse (3369)	antennas%antenna_ec(:)%beam%phaseellipse (phaseellipse) (7.9.6.1.347)
invcurvrad (3341)	antennas%antenna_ec(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.6.1.18)
angle (3341)	antennas%antenna_ec(:)%beam%phaseellipse%angle (float) (7.9.6.1.2)
codeparam (3069)	antennas%antenna_ec(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	antennas%antenna_ec(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	antennas%antenna_ec(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	antennas%antenna_ec(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	antennas%antenna_ec(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	antennas%antenna_ec(:)%codeparam%output_flag (integer) (7.9.6.1.3)
antenna_ic (3019)	antennas%antenna_ic(:) (antenna_ic) (7.9.6.1.76)
name (3070)	antennas%antenna_ic(:)%name (string) (7.9.6.1.4)
frequency (3070)	antennas%antenna_ic(:)%frequency (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_ic(:)%frequency%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_ic(:)%frequency%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_ic(:)%frequency%relerror (float) (7.9.6.1.2)
power (3070)	antennas%antenna_ic(:)%power (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_ic(:)%power%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_ic(:)%power%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_ic(:)%power%relerror (float) (7.9.6.1.2)
setup (3070)	antennas%antenna_ic(:)%setup (antennaic_setup) (7.9.6.1.78)
straps (3072)	antennas%antenna_ic(:)%setup%straps(:) (straps) (7.9.6.1.434)
current (3428)	antennas%antenna_ic(:)%setup%straps(:)%current (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_ic(:)%setup%straps(:)%current%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_ic(:)%setup%straps(:)%current%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_ic(:)%setup%straps(:)%current%relerror (float) (7.9.6.1.2)
phase (3428)	antennas%antenna_ic(:)%setup%straps(:)%phase (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_ic(:)%setup%straps(:)%phase%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_ic(:)%setup%straps(:)%phase%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_ic(:)%setup%straps(:)%phase%relerror (float) (7.9.6.1.2)
phi_centre (3428)	antennas%antenna_ic(:)%setup%straps(:)%phi_centre (float) (7.9.6.1.2)
width (3428)	antennas%antenna_ic(:)%setup%straps(:)%width (float) (7.9.6.1.2)
dist2wall (3428)	antennas%antenna_ic(:)%setup%straps(:)%dist2wall (float) (7.9.6.1.2)
coord_strap (3428)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap (rz1D) (7.9.6.1.377)
r (3371)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%r (vecflt_type) (7.9.6.1.18)
z (3371)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%z (vecflt_type) (7.9.6.1.18)
current (3072)	antennas%antenna_ic(:)%setup%current (current) (7.9.6.1.150)
mpol (3144)	antennas%antenna_ic(:)%setup%current%mpol (vecint_type) (7.9.6.1.19)

ntor (3144)	antennas%antenna_ic(:)%setup%current%ntor (vecint_type) (7.9.6.1.19)
spectrum (3144)	antennas%antenna_ic(:)%setup%current%spectrum (exp1D) (7.9.6.1.216)
value (3210)	antennas%antenna_ic(:)%setup%current%spectrum%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	antennas%antenna_ic(:)%setup%current%spectrum%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	antennas%antenna_ic(:)%setup%current%spectrum%relerror (vecflt_type) (7.9.6.1.18)
rz_reference (3144)	antennas%antenna_ic(:)%setup%current%rz_reference (rz0D) (7.9.6.1.376)
r (3370)	antennas%antenna_ic(:)%setup%current%rz_reference%r (float) (7.9.6.1.2)
z (3370)	antennas%antenna_ic(:)%setup%current%rz_reference%z (float) (7.9.6.1.2)
codeparam (3070)	antennas%antenna_ic(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	antennas%antenna_ic(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	antennas%antenna_ic(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	antennas%antenna_ic(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	antennas%antenna_ic(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	antennas%antenna_ic(:)%codeparam%output_flag (integer) (7.9.6.1.3)
antenna_lh (3019)	antennas%antenna_lh(:) (antenna_lh) (7.9.6.1.77)
name (3071)	antennas%antenna_lh(:)%name (string) (7.9.6.1.4)
frequency (3071)	antennas%antenna_lh(:)%frequency (float) (7.9.6.1.2)
power (3071)	antennas%antenna_lh(:)%power (exp0D) (7.9.6.1.215)
value (3209)	antennas%antenna_lh(:)%power%value (float) (7.9.6.1.2)
abserror (3209)	antennas%antenna_lh(:)%power%abserror (float) (7.9.6.1.2)
relerror (3209)	antennas%antenna_lh(:)%power%relerror (float) (7.9.6.1.2)
n_par (3071)	antennas%antenna_lh(:)%n_par (float) (7.9.6.1.2)
position (3071)	antennas%antenna_lh(:)%position (rzphi0D) (7.9.6.1.382)
r (3376)	antennas%antenna_lh(:)%position%r (float) (7.9.6.1.2)
z (3376)	antennas%antenna_lh(:)%position%z (float) (7.9.6.1.2)
phi (3376)	antennas%antenna_lh(:)%position%phi (float) (7.9.6.1.2)
setup (3071)	antennas%antenna_lh(:)%setup (antennalh_setup) (7.9.6.1.79)
modules (3073)	antennas%antenna_lh(:)%setup%modules (modules) (7.9.6.1.294)
nma_theta (3288)	antennas%antenna_lh(:)%setup%modules%nma_theta (integer) (7.9.6.1.3)
nma_phi (3288)	antennas%antenna_lh(:)%setup%modules%nma_phi (integer) (7.9.6.1.3)
ima_theta (3288)	antennas%antenna_lh(:)%setup%modules%ima_theta (vecint_type) (7.9.6.1.19)
ima_phi (3288)	antennas%antenna_lh(:)%setup%modules%ima_phi (vecint_type) (7.9.6.1.19)
sm_theta (3288)	antennas%antenna_lh(:)%setup%modules%sm_theta (float) (7.9.6.1.2)
amplitude (3288)	antennas%antenna_lh(:)%setup%modules%amplitude (exp1D) (7.9.6.1.216)
value (3210)	antennas%antenna_lh(:)%setup%modules%amplitude%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	antennas%antenna_lh(:)%setup%modules%amplitude%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	antennas%antenna_lh(:)%setup%modules%amplitude%relerror (vecflt_type) (7.9.6.1.18)
phase (3288)	antennas%antenna_lh(:)%setup%modules%phase (exp1D) (7.9.6.1.216)
value (3210)	antennas%antenna_lh(:)%setup%modules%phase%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	antennas%antenna_lh(:)%setup%modules%phase%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	antennas%antenna_lh(:)%setup%modules%phase%relerror (vecflt_type) (7.9.6.1.18)
waveguides (3288)	antennas%antenna_lh(:)%setup%modules%waveguides (waveguides) (7.9.6.1.515)
nwm_theta (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_theta (integer) (7.9.6.1.3)
nwm_phi (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_phi (integer) (7.9.6.1.3)
mask (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%mask (vecint_type) (7.9.6.1.19)
npwbm_phi (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%npwbm_phi (integer) (7.9.6.1.3)
npwe_phi (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%npwe_phi (integer) (7.9.6.1.3)
sw_theta (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%sw_theta (float) (7.9.6.1.2)
hw_theta (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%hw_theta (float) (7.9.6.1.2)
bwa (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%bwa (float) (7.9.6.1.2)
biwp (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%biwp (float) (7.9.6.1.2)
bewp (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%bewp (float) (7.9.6.1.2)
e_phi (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%e_phi (vecflt_type) (7.9.6.1.18)
scl (3509)	antennas%antenna_lh(:)%setup%modules%waveguides%scl (vecflt_type) (7.9.6.1.18)
plasmaedge (3071)	antennas%antenna_lh(:)%plasmaedge (plasmaedge) (7.9.6.1.350)
npoints (3344)	antennas%antenna_lh(:)%plasmaedge%npoints (integer) (7.9.6.1.3)
distance (3344)	antennas%antenna_lh(:)%plasmaedge%distance (vecflt_type) (7.9.6.1.18)
density (3344)	antennas%antenna_lh(:)%plasmaedge%density (vecflt_type) (7.9.6.1.18)
beam (3071)	antennas%antenna_lh(:)%beam (rfbeam) (7.9.6.1.375)
spot (3369)	antennas%antenna_lh(:)%beam%spot (spot) (7.9.6.1.432)
size (3426)	antennas%antenna_lh(:)%beam%spot%size (vecflt_type) (7.9.6.1.18)

angle (3426)	antennas%antenna_lh(:)%beam%spot%angle (float) (7.9.6.1.2)
phaseellipse (3369)	antennas%antenna_lh(:)%beam%phaseellipse (phaseellipse) (7.9.6.1.347)
invcurvrad (3341)	antennas%antenna_lh(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.6.1.18)
angle (3341)	antennas%antenna_lh(:)%beam%phaseellipse%angle (float) (7.9.6.1.2)
codeparam (3071)	antennas%antenna_lh(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	antennas%antenna_lh(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	antennas%antenna_lh(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	antennas%antenna_lh(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	antennas%antenna_lh(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	antennas%antenna_lh(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3019)	antennas%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	antennas%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	antennas%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	antennas%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	antennas%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	antennas%codeparam%output_flag (integer) (7.9.6.1.3)
time (3019)	antennas%time (float) (7.9.6.1.2)

7.9.6.2.4 bb_shield

datainfo (3020)	bb_shield%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	bb_shield%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	bb_shield%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	bb_shield%datainfo%source (string) (7.9.6.1.4)
comment (3148)	bb_shield%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	bb_shield%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	bb_shield%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	bb_shield%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	bb_shield%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	bb_shield%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	bb_shield%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	bb_shield%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	bb_shield%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	bb_shield%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	bb_shield%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	bb_shield%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	bb_shield%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	bb_shield%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	bb_shield%datainfo%putinfo%rights (string) (7.9.6.1.4)
type (3020)	bb_shield%type (string) (7.9.6.1.4)
limits (3020)	bb_shield%limits (limits) (7.9.6.1.272)
fw_dpa (3266)	bb_shield%limits%fw_dpa (float) (7.9.6.1.2)
he_appm (3266)	bb_shield%limits%he_appm (float) (7.9.6.1.2)
ins_dose (3266)	bb_shield%limits%ins_dose (float) (7.9.6.1.2)
fn_flu (3266)	bb_shield%limits%fn_flu (float) (7.9.6.1.2)
dpa_cu (3266)	bb_shield%limits%dpa_cu (float) (7.9.6.1.2)
wp_nh (3266)	bb_shield%limits%wp_nh (float) (7.9.6.1.2)
li6_enrich (3020)	bb_shield%li6_enrich (float) (7.9.6.1.2)
geom (3020)	bb_shield%geom (geom) (7.9.6.1.245)
dr_bb_sh_ib (3239)	bb_shield%geom%dr_bb_sh_ib (float) (7.9.6.1.2)
dr_sh_vv_ib (3239)	bb_shield%geom%dr_sh_vv_ib (float) (7.9.6.1.2)
dr_bb_sh_ob (3239)	bb_shield%geom%dr_bb_sh_ob (float) (7.9.6.1.2)
dr_sh_vv_ob (3239)	bb_shield%geom%dr_sh_vv_ob (float) (7.9.6.1.2)
dr_bb__sh_ib (3239)	bb_shield%geom%dr_bb__sh_ib (float) (7.9.6.1.2)
dr_bb__sh_ob (3239)	bb_shield%geom%dr_bb__sh_ob (float) (7.9.6.1.2)
delta_int (3239)	bb_shield%geom%delta_int (float) (7.9.6.1.2)
neut_results (3020)	bb_shield%neut_results (neut_results) (7.9.6.1.307)
tbr_bk (3301)	bb_shield%neut_results%tbr_bk (float) (7.9.6.1.2)
tbr_bk_inb (3301)	bb_shield%neut_results%tbr_bk_inb (float) (7.9.6.1.2)
tbr_bk_outb (3301)	bb_shield%neut_results%tbr_bk_outb (float) (7.9.6.1.2)
me_bk (3301)	bb_shield%neut_results%me_bk (float) (7.9.6.1.2)

me_shield (3301)	bb_shield%neut_results%me_shield (float) (7.9.6.1.2)
he_appm_res (3301)	bb_shield%neut_results%he_appm_res (float) (7.9.6.1.2)
ins_dose_max (3301)	bb_shield%neut_results%ins_dose_max (float) (7.9.6.1.2)
fn_flu_max (3301)	bb_shield%neut_results%fn_flu_max (float) (7.9.6.1.2)
dpa_cu_max (3301)	bb_shield%neut_results%dpa_cu_max (float) (7.9.6.1.2)
fn_flux_bz (3301)	bb_shield%neut_results%fn_flux_bz (float) (7.9.6.1.2)
fn_flux_bp (3301)	bb_shield%neut_results%fn_flux_bp (float) (7.9.6.1.2)
fn_flux_man (3301)	bb_shield%neut_results%fn_flux_man (float) (7.9.6.1.2)
fn_flux_sh (3301)	bb_shield%neut_results%fn_flux_sh (float) (7.9.6.1.2)
p_nh_bk (3301)	bb_shield%neut_results%p_nh_bk (float) (7.9.6.1.2)
p_nh_sh (3301)	bb_shield%neut_results%p_nh_sh (float) (7.9.6.1.2)
shield (3020)	bb_shield%shield (shield) (7.9.6.1.416)
inboard (3410)	bb_shield%shield%inboard (shield_specs) (7.9.6.1.417)
nmat (3411)	bb_shield%shield%inboard%nmat (integer) (7.9.6.1.3)
composition (3411)	bb_shield%shield%inboard%composition (vecflt_type) (7.9.6.1.18)
r1 (3411)	bb_shield%shield%inboard%r1 (float) (7.9.6.1.2)
r2 (3411)	bb_shield%shield%inboard%r2 (float) (7.9.6.1.2)
mass (3411)	bb_shield%shield%inboard%mass (float) (7.9.6.1.2)
outboard (3410)	bb_shield%shield%outboard (shield_specs) (7.9.6.1.417)
nmat (3411)	bb_shield%shield%outboard%nmat (integer) (7.9.6.1.3)
composition (3411)	bb_shield%shield%outboard%composition (vecflt_type) (7.9.6.1.18)
r1 (3411)	bb_shield%shield%outboard%r1 (float) (7.9.6.1.2)
r2 (3411)	bb_shield%shield%outboard%r2 (float) (7.9.6.1.2)
mass (3411)	bb_shield%shield%outboard%mass (float) (7.9.6.1.2)
bb (3020)	bb_shield%bb (bb) (7.9.6.1.81)
nb_bb (3075)	bb_shield%bb%nb_bb (float) (7.9.6.1.2)
nb_bb_polcut (3075)	bb_shield%bb%nb_bb_polcut (float) (7.9.6.1.2)
teta_bb (3075)	bb_shield%bb%teta_bb (float) (7.9.6.1.2)
tbr (3075)	bb_shield%bb%tbr (float) (7.9.6.1.2)
neutro_resul (3075)	bb_shield%bb%neutro_resul (neutro_resul) (7.9.6.1.309)
nwl_max (3303)	bb_shield%bb%neutro_resul%nwl_max (float) (7.9.6.1.2)
nwl_pol_prof (3303)	bb_shield%bb%neutro_resul%nwl_pol_prof (vecflt_type) (7.9.6.1.18)
inboard (3075)	bb_shield%bb%inboard (bb_specs) (7.9.6.1.84)
nbb (3078)	bb_shield%bb%inboard%nbb (float) (7.9.6.1.2)
r1 (3078)	bb_shield%bb%inboard%r1 (float) (7.9.6.1.2)
r2 (3078)	bb_shield%bb%inboard%r2 (float) (7.9.6.1.2)
dimension (3078)	bb_shield%bb%inboard%dimension (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%bb%inboard%dimension%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%bb%inboard%dimension%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%bb%inboard%dimension%poloidal (vecflt_type) (7.9.6.1.18)
outboard (3075)	bb_shield%bb%outboard (bb_specs) (7.9.6.1.84)
nbb (3078)	bb_shield%bb%outboard%nbb (float) (7.9.6.1.2)
r1 (3078)	bb_shield%bb%outboard%r1 (float) (7.9.6.1.2)
r2 (3078)	bb_shield%bb%outboard%r2 (float) (7.9.6.1.2)
dimension (3078)	bb_shield%bb%outboard%dimension (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%bb%outboard%dimension%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%bb%outboard%dimension%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%bb%outboard%dimension%poloidal (vecflt_type) (7.9.6.1.18)
hcll (3020)	bb_shield%hcll (hcll) (7.9.6.1.250)
mat_lim (3244)	bb_shield%hcll%mat_lim (mat_lim) (7.9.6.1.280)
cool_t_lim (3274)	bb_shield%hcll%mat_lim%cool_t_lim (float) (7.9.6.1.2)
steel_t_lim (3274)	bb_shield%hcll%mat_lim%steel_t_lim (float) (7.9.6.1.2)
lipb_t_lim (3274)	bb_shield%hcll%mat_lim%lipb_t_lim (float) (7.9.6.1.2)
hcll_bb (3244)	bb_shield%hcll%hcll_bb (hcll_bb) (7.9.6.1.251)
bb_lifetime (3245)	bb_shield%hcll%hcll_bb%bb_lifetime (float) (7.9.6.1.2)
he_inl_t (3245)	bb_shield%hcll%hcll_bb%he_inl_t (float) (7.9.6.1.2)
he_fr (3245)	bb_shield%hcll%hcll_bb%he_fr (float) (7.9.6.1.2)
he_inl_p (3245)	bb_shield%hcll%hcll_bb%he_inl_p (float) (7.9.6.1.2)
loca_des_p (3245)	bb_shield%hcll%hcll_bb%loca_des_p (float) (7.9.6.1.2)
he_dp (3245)	bb_shield%hcll%hcll_bb%he_dp (float) (7.9.6.1.2)
lipb_dp (3245)	bb_shield%hcll%hcll_bb%lipb_dp (float) (7.9.6.1.2)

react (3245)	bb_shield%hcll%hcll_bb%react (react) (7.9.6.1.363)
he_fr (3357)	bb_shield%hcll%hcll_bb%react%he_fr (float) (7.9.6.1.2)
lp_fr (3357)	bb_shield%hcll%hcll_bb%react%lp_fr (float) (7.9.6.1.2)
he_dp (3357)	bb_shield%hcll%hcll_bb%react%he_dp (float) (7.9.6.1.2)
lipb_dp (3357)	bb_shield%hcll%hcll_bb%react%lipb_dp (float) (7.9.6.1.2)
inboard (3245)	bb_shield%hcll%hcll_bb%inboard (hcllbb_specs) (7.9.6.1.252)
mass (3246)	bb_shield%hcll%hcll_bb%inboard%mass (vecflt_type) (7.9.6.1.18)
dr (3246)	bb_shield%hcll%hcll_bb%inboard%dr (vecflt_type) (7.9.6.1.18)
mat (3246)	bb_shield%hcll%hcll_bb%inboard%mat (vecflt_type) (7.9.6.1.18)
composition (3246)	bb_shield%hcll%hcll_bb%inboard%composition (matflt_type) (7.9.6.1.15)
mod_geom (3246)	bb_shield%hcll%hcll_bb%inboard%mod_geom (bb_geometry) (7.9.6.1.83)
dr_fw (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fw (float) (7.9.6.1.2)
dr_bz (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bz (float) (7.9.6.1.2)
dr_bp (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp (float) (7.9.6.1.2)
dr_bp_plates (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.6.1.18)
dr_bp_he (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_he (vecflt_type) (7.9.6.1.18)
dr_man (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_man (float) (7.9.6.1.2)
dt_sw (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_sw (float) (7.9.6.1.2)
dt_bz (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_bz (float) (7.9.6.1.2)
dp_bz (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dp_bz (float) (7.9.6.1.2)
top_cap_dim (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.6.1.18)
bot_cap_dim (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.6.1.18)
a_fw_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_fw_ch (float) (7.9.6.1.2)
b_fw_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_fw_ch (float) (7.9.6.1.2)
td_tc_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_tc_ch (float) (7.9.6.1.2)
rd_tc_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_tc_ch (float) (7.9.6.1.2)
td_bc_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_bc_ch (float) (7.9.6.1.2)
rd_bc_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_bc_ch (float) (7.9.6.1.2)
n_fw_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_ch (float) (7.9.6.1.2)
n_fw_circ (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_circ (float) (7.9.6.1.2)
a_sg_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_sg_ch (float) (7.9.6.1.2)
b_sg_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_sg_ch (float) (7.9.6.1.2)
n_sg_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_sg_ch (float) (7.9.6.1.2)
sg_thick (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_thick (float) (7.9.6.1.2)
sg_weld (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_weld (float) (7.9.6.1.2)
sg_in_out (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_in_out (float) (7.9.6.1.2)
r_sg_cp (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%r_sg_cp (float) (7.9.6.1.2)
cp_tor_gap (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_tor_gap (float) (7.9.6.1.2)
a_cp_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_cp_ch (float) (7.9.6.1.2)
b_cp_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_cp_ch (float) (7.9.6.1.2)
n_cp_ch (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_ch (float) (7.9.6.1.2)
cp_thick (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_thick (float) (7.9.6.1.2)
n_pol_bu (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_pol_bu (float) (7.9.6.1.2)
n_tor_bu (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_tor_bu (float) (7.9.6.1.2)
n_cp_bu (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_bu (float) (7.9.6.1.2)
cp_in_out (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_in_out (float) (7.9.6.1.2)
he_man_tck (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_man_tck (float) (7.9.6.1.2)
man_tck (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%man_tck (float) (7.9.6.1.2)
pbli_bptb_od (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_od (float) (7.9.6.1.2)
pbli_bptb_id (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_id (float) (7.9.6.1.2)
he_bptb_od (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_od (float) (7.9.6.1.2)
he_bptb_id (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_id (float) (7.9.6.1.2)
dr_max_fw (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_max_fw (float) (7.9.6.1.2)

dr_fwpl (3077)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fwpl (float) (7.9.6.1.2)
mod_neutr (3246)	bb_shield%hcll%hcll_bb%inboard%mod_neutr (mode_neutr) (7.9.6.1.290)
r (3284)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%r (vecflt_type) (7.9.6.1.18)
pd_rad (3284)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pd_rad (vecflt_type) (7.9.6.1.18)
lipb_coef_pd (3284)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.6.1.18)
steel_coef_pd (3284)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.6.1.18)
pow_exchange (3284)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange (power_exchange) (7.9.6.1.355)
dep_pow (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.6.1.18)
dep_fw (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.6.1.2)
dep_sg (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.6.1.2)
dep_cp (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.6.1.2)
dep_lp (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.6.1.2)
dep_man (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_man (float) (7.9.6.1.2)
dep_pl (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.6.1.2)
rec_fw (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.6.1.2)
rec_sg (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.6.1.2)
rec_cp (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.6.1.2)
pow_dens_fw (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.6.1.2)
pow_dens_bz (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.6.1.2)
pow_dens_bz10 (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.6.1.2)
pow_dens_bp (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.6.1.2)
pow_dens_man (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.6.1.2)
pow_dens_sh (3349)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.6.1.2)
mod_therm (3246)	bb_shield%hcll%hcll_bb%inboard%mod_therm (mode_therm) (7.9.6.1.292)
he_fr (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_fr (float) (7.9.6.1.2)
perc_bp_he (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%perc_bp_he (float) (7.9.6.1.2)
he_out_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_out_t (float) (7.9.6.1.2)
fw_he_out_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_he_out_t (float) (7.9.6.1.2)
sg_he_out_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_he_out_t (float) (7.9.6.1.2)
cp_he_out_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_he_out_t (float) (7.9.6.1.2)
fw_st_max_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_st_max_t (float) (7.9.6.1.2)
sg_st_max_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_st_max_t (float) (7.9.6.1.2)
cp_st_max_t (3286)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_st_max_t (float) (7.9.6.1.2)
mod_th_hyd (3246)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd (mode_th_hyd) (7.9.6.1.291)
fw_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%fw_dp_he (float) (7.9.6.1.2)
sg_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%sg_dp_he (float) (7.9.6.1.2)
cp_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%cp_dp_he (float) (7.9.6.1.2)
man_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%man_dp_he (float) (7.9.6.1.2)
tot_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%tot_dp_he (float) (7.9.6.1.2)
bp_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%bp_dp_he (float) (7.9.6.1.2)
circ_dp_he (3285)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%circ_dp_he (float) (7.9.6.1.2)
mod_mech (3246)	bb_shield%hcll%hcll_bb%inboard%mod_mech (mode_mech) (7.9.6.1.289)
fw_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_ts_mg (float) (7.9.6.1.2)
fw_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_bd_mg (float) (7.9.6.1.2)
sg_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_ts_mg (float) (7.9.6.1.2)
sg_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_bd_mg (float) (7.9.6.1.2)
cp_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_ts_mg (float) (7.9.6.1.2)
cp_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_bd_mg (float) (7.9.6.1.2)
min_ts_mg_ac (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_ts_mg_ac (float) (7.9.6.1.2)
min_bd_mg_ac (3283)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_bd_mg_ac (float) (7.9.6.1.2)
mod_lipb (3246)	bb_shield%hcll%hcll_bb%inboard%mod_lipb (mode_lipb) (7.9.6.1.288)
lp_rec_day (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_rec_day (float) (7.9.6.1.2)
bb_lp_fr (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.6.1.18)
lp_inl_p (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_inl_p (float) (7.9.6.1.2)
bu_dp_lp (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_dp_lp (float) (7.9.6.1.2)
man_dp_lp (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%man_dp_lp (float) (7.9.6.1.2)

tot_dp_lp (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%tot_dp_lp (float) (7.9.6.1.2)
bu_lp_ave_t (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_ave_t (float) (7.9.6.1.2)
bu_lp_max_t (3282)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_max_t (float) (7.9.6.1.2)
mod_tritium (3246)	bb_shield%hcll%hcll_bb%inboard%mod_tritium (mode_tritium) (7.9.6.1.293)
t_conc_lipb (3287)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_lipb (float) (7.9.6.1.2)
t_conc_he (3287)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_he (float) (7.9.6.1.2)
outboard (3245)	bb_shield%hcll%hcll_bb%outboard (hcllbb_specs) (7.9.6.1.252)
mass (3246)	bb_shield%hcll%hcll_bb%outboard%mass (vecflt_type) (7.9.6.1.18)
dr (3246)	bb_shield%hcll%hcll_bb%outboard%dr (vecflt_type) (7.9.6.1.18)
mat (3246)	bb_shield%hcll%hcll_bb%outboard%mat (vecflt_type) (7.9.6.1.18)
composition (3246)	bb_shield%hcll%hcll_bb%outboard%composition (matflt_type) (7.9.6.1.15)
mod_geom (3246)	bb_shield%hcll%hcll_bb%outboard%mod_geom (bb_geometry) (7.9.6.1.83)
dr_fw (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fw (float) (7.9.6.1.2)
dr_bz (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bz (float) (7.9.6.1.2)
dr_bp (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp (float) (7.9.6.1.2)
dr_bp_plates (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.6.1.18)
dr_bp_he (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_he (vecflt_type) (7.9.6.1.18)
dr_man (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_man (float) (7.9.6.1.2)
dt_sw (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_sw (float) (7.9.6.1.2)
dt_bz (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_bz (float) (7.9.6.1.2)
dp_bz (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dp_bz (float) (7.9.6.1.2)
top_cap_dim (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.6.1.18)
bot_cap_dim (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.6.1.82)
radial (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.6.1.18)
toroidal (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.6.1.18)
poloidal (3076)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.6.1.18)
a_fw_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_fw_ch (float) (7.9.6.1.2)
b_fw_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_fw_ch (float) (7.9.6.1.2)
td_tc_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_tc_ch (float) (7.9.6.1.2)
rd_tc_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_tc_ch (float) (7.9.6.1.2)
td_bc_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_bc_ch (float) (7.9.6.1.2)
rd_bc_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_bc_ch (float) (7.9.6.1.2)
n_fw_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_ch (float) (7.9.6.1.2)
n_fw_circ (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_circ (float) (7.9.6.1.2)
a_sg_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_sg_ch (float) (7.9.6.1.2)
b_sg_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_sg_ch (float) (7.9.6.1.2)
n_sg_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_sg_ch (float) (7.9.6.1.2)
sg_thick (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_thick (float) (7.9.6.1.2)
sg_weld (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_weld (float) (7.9.6.1.2)
sg_in_out (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_in_out (float) (7.9.6.1.2)
r_sg_cp (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%r_sg_cp (float) (7.9.6.1.2)
cp_tor_gap (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_tor_gap (float) (7.9.6.1.2)
a_cp_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_cp_ch (float) (7.9.6.1.2)
b_cp_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_cp_ch (float) (7.9.6.1.2)
n_cp_ch (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_ch (float) (7.9.6.1.2)
cp_thick (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_thick (float) (7.9.6.1.2)
n_pol_bu (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_pol_bu (float) (7.9.6.1.2)
n_tor_bu (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_tor_bu (float) (7.9.6.1.2)
n_cp_bu (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_bu (float) (7.9.6.1.2)
cp_in_out (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_in_out (float) (7.9.6.1.2)
he_man_tck (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_man_tck (float) (7.9.6.1.2)
man_tck (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%man_tck (float) (7.9.6.1.2)
pbli_bptb_od (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_od (float) (7.9.6.1.2)
pbli_bptb_id (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_id (float) (7.9.6.1.2)

he_bptb_od (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_od (float) (7.9.6.1.2)
he_bptb_id (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_id (float) (7.9.6.1.2)
dr_max_fw (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_max_fw (float) (7.9.6.1.2)
dr_fwpl (3077)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fwpl (float) (7.9.6.1.2)
mod_neutr (3246)	bb_shield%hcll%hcll_bb%outboard%mod_neutr (mode_neutr) (7.9.6.1.290)
r (3284)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%r (vecflt_type) (7.9.6.1.18)
pd_rad (3284)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pd_rad (vecflt_type) (7.9.6.1.18)
lipb_coef_pd (3284)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.6.1.18)
steel_coef_pd (3284)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.6.1.18)
pow_exchange (3284)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange (power_exchange) (7.9.6.1.355)
dep_pow (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.6.1.18)
dep_fw (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.6.1.2)
dep_sg (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.6.1.2)
dep_cp (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.6.1.2)
dep_lp (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.6.1.2)
dep_man (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_man (float) (7.9.6.1.2)
dep_pl (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.6.1.2)
rec_fw (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.6.1.2)
rec_sg (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.6.1.2)
rec_cp (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.6.1.2)
pow_dens_fw (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.6.1.2)
pow_dens_bz (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.6.1.2)
pow_dens_bz10 (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.6.1.2)
pow_dens_bp (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.6.1.2)
pow_dens_man (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.6.1.2)
pow_dens_sh (3349)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.6.1.2)
mod_therm (3246)	bb_shield%hcll%hcll_bb%outboard%mod_therm (mode_therm) (7.9.6.1.292)
he_fr (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_fr (float) (7.9.6.1.2)
perc_bp_he (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%perc_bp_he (float) (7.9.6.1.2)
he_out_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_out_t (float) (7.9.6.1.2)
fw_he_out_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_he_out_t (float) (7.9.6.1.2)
sg_he_out_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_he_out_t (float) (7.9.6.1.2)
cp_he_out_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_he_out_t (float) (7.9.6.1.2)
fw_st_max_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_st_max_t (float) (7.9.6.1.2)
sg_st_max_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_st_max_t (float) (7.9.6.1.2)
cp_st_max_t (3286)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_st_max_t (float) (7.9.6.1.2)
mod_th_hyd (3246)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd (mode_th_hyd) (7.9.6.1.291)
fw_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%fw_dp_he (float) (7.9.6.1.2)
sg_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%sg_dp_he (float) (7.9.6.1.2)
cp_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%cp_dp_he (float) (7.9.6.1.2)
man_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%man_dp_he (float) (7.9.6.1.2)
tot_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%tot_dp_he (float) (7.9.6.1.2)
bp_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%bp_dp_he (float) (7.9.6.1.2)
circ_dp_he (3285)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%circ_dp_he (float) (7.9.6.1.2)
mod_mech (3246)	bb_shield%hcll%hcll_bb%outboard%mod_mech (mode_mech) (7.9.6.1.289)
fw_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_ts_mg (float) (7.9.6.1.2)
fw_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_bd_mg (float) (7.9.6.1.2)
sg_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_ts_mg (float) (7.9.6.1.2)
sg_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_bd_mg (float) (7.9.6.1.2)
cp_min_ts_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_ts_mg (float) (7.9.6.1.2)
cp_min_bd_mg (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_bd_mg (float) (7.9.6.1.2)
min_ts_mg_ac (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_ts_mg_ac (float) (7.9.6.1.2)
min_bd_mg_ac (3283)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_bd_mg_ac (float) (7.9.6.1.2)
mod_lipb (3246)	bb_shield%hcll%hcll_bb%outboard%mod_lipb (mode_lipb) (7.9.6.1.288)
lp_rec_day (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_rec_day (float) (7.9.6.1.2)
bb_lp_fr (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.6.1.18)

lp_inl_p (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_inl_p (float) (7.9.6.1.2)
bu_dp_lp (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_dp_lp (float) (7.9.6.1.2)
man_dp_lp (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%man_dp_lp (float) (7.9.6.1.2)
tot_dp_lp (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%tot_dp_lp (float) (7.9.6.1.2)
bu_lp_ave_t (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_ave_t (float) (7.9.6.1.2)
bu_lp_max_t (3282)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_max_t (float) (7.9.6.1.2)
mod_tritium (3246)	bb_shield%hcll%hcll_bb%outboard%mod_tritium (mode_tritium) (7.9.6.1.293)
t_conc_lipb (3287)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_lipb (float) (7.9.6.1.2)
t_conc_he (3287)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_he (float) (7.9.6.1.2)
codeparam (3020)	bb_shield%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	bb_shield%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	bb_shield%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	bb_shield%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	bb_shield%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	bb_shield%codeparam%output_flag (integer) (7.9.6.1.3)
time (3020)	bb_shield%time (float) (7.9.6.1.2)

7.9.6.2.5 compositionc

datainfo (3021)	compositionc%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	compositionc%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	compositionc%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	compositionc%datainfo%source (string) (7.9.6.1.4)
comment (3148)	compositionc%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	compositionc%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	compositionc%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	compositionc%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	compositionc%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	compositionc%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	compositionc%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	compositionc%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	compositionc%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	compositionc%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	compositionc%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	compositionc%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	compositionc%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	compositionc%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	compositionc%datainfo%putinfo%rights (string) (7.9.6.1.4)
compositions (3021)	compositionc%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	compositionc%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	compositionc%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	compositionc%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	compositionc%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	compositionc%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	compositionc%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	compositionc%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	compositionc%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	compositionc%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	compositionc%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	compositionc%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	compositionc%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	compositionc%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	compositionc%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	compositionc%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	compositionc%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	compositionc%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	compositionc%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	compositionc%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)

id (3248)	compositionc%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	compositionc%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	compositionc%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	compositionc%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	compositionc%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	compositionc%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	compositionc%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	compositionc%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	compositionc%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	compositionc%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	compositionc%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	compositionc%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	compositionc%compositions%signature%description (string) (7.9.6.1.4)
codeparam (3021)	compositionc%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	compositionc%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	compositionc%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	compositionc%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	compositionc%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	compositionc%codeparam%output_flag (integer) (7.9.6.1.3)
time (3021)	compositionc%time (float) (7.9.6.1.2)

7.9.6.2.6 coredelta

datainfo (3022)	coredelta%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	coredelta%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coredelta%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coredelta%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coredelta%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coredelta%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coredelta%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coredelta%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coredelta%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	coredelta%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coredelta%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coredelta%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coredelta%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coredelta%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coredelta%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coredelta%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coredelta%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coredelta%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coredelta%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3022)	coredelta%composition (composition) (7.9.6.1.116)
amn (3110)	coredelta%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	coredelta%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	coredelta%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	coredelta%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	coredelta%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3022)	coredelta%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coredelta%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coredelta%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	coredelta%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coredelta%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coredelta%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coredelta%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coredelta%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3022)	coredelta%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coredelta%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coredelta%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coredelta%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coredelta%compositions%nuclei(:)%label (string) (7.9.6.1.4)

ions (3114)	coredelta%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	coredelta%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coredelta%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coredelta%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coredelta%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coredelta%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coredelta%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coredelta%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coredelta%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	coredelta%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coredelta%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coredelta%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coredelta%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coredelta%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coredelta%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coredelta%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coredelta%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coredelta%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coredelta%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coredelta%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coredelta%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	coredelta%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coredelta%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coredelta%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coredelta%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coredelta%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coredelta%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coredelta%compositions%signature%description (string) (7.9.6.1.4)
values (3022)	coredelta%values(:) (coredelta_values) (7.9.6.1.125)
deltaid (3119)	coredelta%values(:)%deltaid (identifier) (7.9.6.1.254)
id (3248)	coredelta%values(:)%deltaid%id (string) (7.9.6.1.4)
flag (3248)	coredelta%values(:)%deltaid%flag (integer) (7.9.6.1.3)
description (3248)	coredelta%values(:)%deltaid%description (string) (7.9.6.1.4)
rho_tor (3119)	coredelta%values(:)%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3119)	coredelta%values(:)%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3119)	coredelta%values(:)%psi (vecflt_type) (7.9.6.1.18)
volume (3119)	coredelta%values(:)%volume (vecflt_type) (7.9.6.1.18)
area (3119)	coredelta%values(:)%area (vecflt_type) (7.9.6.1.18)
delta_psi (3119)	coredelta%values(:)%delta_psi (vecflt_type) (7.9.6.1.18)
delta_te (3119)	coredelta%values(:)%delta_te (vecflt_type) (7.9.6.1.18)
delta_ti (3119)	coredelta%values(:)%delta_ti (matflt_type) (7.9.6.1.15)
delta_tz (3119)	coredelta%values(:)%delta_tz (array3dflt_type) (7.9.6.1.7)
delta_ne (3119)	coredelta%values(:)%delta_ne (vecflt_type) (7.9.6.1.18)
delta_ni (3119)	coredelta%values(:)%delta_ni (matflt_type) (7.9.6.1.15)
delta_nz (3119)	coredelta%values(:)%delta_nz (array3dflt_type) (7.9.6.1.7)
delta_vtor (3119)	coredelta%values(:)%delta_vtor (matflt_type) (7.9.6.1.15)
codeparam (3119)	coredelta%values(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coredelta%values(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coredelta%values(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coredelta%values(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coredelta%values(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coredelta%values(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3022)	coredelta%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coredelta%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coredelta%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coredelta%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coredelta%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coredelta%codeparam%output_flag (integer) (7.9.6.1.3)

time (3022)	coredelta%time (float) (7.9.6.1.2)

7.9.6.2.7 corefast

datainfo (3023)	corefast%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	corefast%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	corefast%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	corefast%datainfo%source (string) (7.9.6.1.4)
comment (3148)	corefast%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	corefast%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	corefast%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	corefast%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	corefast%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	corefast%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	corefast%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	corefast%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	corefast%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	corefast%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	corefast%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	corefast%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	corefast%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	corefast%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	corefast%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3023)	corefast%composition (composition) (7.9.6.1.116)
amn (3110)	corefast%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	corefast%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	corefast%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	corefast%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	corefast%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3023)	corefast%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	corefast%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	corefast%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	corefast%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	corefast%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	corefast%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	corefast%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	corefast%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3023)	corefast%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	corefast%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	corefast%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	corefast%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	corefast%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	corefast%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	corefast%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	corefast%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	corefast%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	corefast%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	corefast%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	corefast%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	corefast%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	corefast%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	corefast%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	corefast%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	corefast%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	corefast%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	corefast%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	corefast%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	corefast%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	corefast%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	corefast%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)

flag (3248)	corefast%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	corefast%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	corefast%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	corefast%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	corefast%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	corefast%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	corefast%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	corefast%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	corefast%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	corefast%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	corefast%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	corefast%compositions%signature%description (string) (7.9.6.1.4)
toroid_field (3023)	corefast%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	corefast%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	corefast%toroid_field%b0 (float) (7.9.6.1.2)
values (3023)	corefast%values(:) (corefast_values) (7.9.6.1.126)
fastid (3120)	corefast%values(:)%fastid (identifier) (7.9.6.1.254)
id (3248)	corefast%values(:)%fastid%id (string) (7.9.6.1.4)
flag (3248)	corefast%values(:)%fastid%flag (integer) (7.9.6.1.3)
description (3248)	corefast%values(:)%fastid%description (string) (7.9.6.1.4)
filter (3120)	corefast%values(:)%filter (fast_thermal_separation_filter) (7.9.6.1.219)
method (3213)	corefast%values(:)%filter%method (identifier) (7.9.6.1.254)
id (3248)	corefast%values(:)%filter%method%id (string) (7.9.6.1.4)
flag (3248)	corefast%values(:)%filter%method%flag (integer) (7.9.6.1.3)
description (3248)	corefast%values(:)%filter%method%description (string) (7.9.6.1.4)
energy_sep (3213)	corefast%values(:)%filter%energy_sep (vecflt_type) (7.9.6.1.18)
rho_tor (3120)	corefast%values(:)%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3120)	corefast%values(:)%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3120)	corefast%values(:)%psi (vecflt_type) (7.9.6.1.18)
volume (3120)	corefast%values(:)%volume (vecflt_type) (7.9.6.1.18)
area (3120)	corefast%values(:)%area (vecflt_type) (7.9.6.1.18)
j (3120)	corefast%values(:)%j (vecflt_type) (7.9.6.1.18)
sigma (3120)	corefast%values(:)%sigma (vecflt_type) (7.9.6.1.18)
ni (3120)	corefast%values(:)%ni (matflt_type) (7.9.6.1.15)
ne (3120)	corefast%values(:)%ne (vecflt_type) (7.9.6.1.18)
nz (3120)	corefast%values(:)%nz (matflt_type) (7.9.6.1.15)
pi (3120)	corefast%values(:)%pi (matflt_type) (7.9.6.1.15)
pe (3120)	corefast%values(:)%pe (vecflt_type) (7.9.6.1.18)
pz (3120)	corefast%values(:)%pz (matflt_type) (7.9.6.1.15)
pi_para (3120)	corefast%values(:)%pi_para (matflt_type) (7.9.6.1.15)
pe_para (3120)	corefast%values(:)%pe_para (vecflt_type) (7.9.6.1.18)
pz_para (3120)	corefast%values(:)%pz_para (matflt_type) (7.9.6.1.15)
ui (3120)	corefast%values(:)%ui (matflt_type) (7.9.6.1.15)
uz (3120)	corefast%values(:)%uz (matflt_type) (7.9.6.1.15)
codeparam (3120)	corefast%values(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	corefast%values(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	corefast%values(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	corefast%values(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	corefast%values(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	corefast%values(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3023)	corefast%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	corefast%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	corefast%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	corefast%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	corefast%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	corefast%codeparam%output_flag (integer) (7.9.6.1.3)
time (3023)	corefast%time (float) (7.9.6.1.2)

7.9.6.2.8 coreimpur

datainfo (3024)	coreimpur%datainfo (datainfo) (7.9.6.1.154)

dataprovider (3148)	coreimpur%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coreimpur%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coreimpur%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coreimpur%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coreimpur%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coreimpur%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coreimpur%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coreimpur%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	coreimpur%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coreimpur%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coreimpur%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coreimpur%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coreimpur%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coreimpur%datainfo%putinfo%rights (string) (7.9.6.1.4)
rho_tor_norm (3024)	coreimpur%rho_tor_norm (vecflt_type) (7.9.6.1.18)
rho_tor (3024)	coreimpur%rho_tor (vecflt_type) (7.9.6.1.18)
psi (3024)	coreimpur%psi (vecflt_type) (7.9.6.1.18)
volume (3024)	coreimpur%volume (vecflt_type) (7.9.6.1.18)
area (3024)	coreimpur%area (vecflt_type) (7.9.6.1.18)
source (3024)	coreimpur%source (vecstring_type) (7.9.6.1.20)
flag (3024)	coreimpur%flag (vecint_type) (7.9.6.1.19)
desc_impur (3024)	coreimpur%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coreimpur%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coreimpur%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coreimpur%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coreimpur%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coreimpur%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3024)	coreimpur%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coreimpur%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coreimpur%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coreimpur%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coreimpur%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	coreimpur%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	coreimpur%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coreimpur%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coreimpur%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coreimpur%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coreimpur%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coreimpur%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coreimpur%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coreimpur%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	coreimpur%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coreimpur%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coreimpur%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coreimpur%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coreimpur%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coreimpur%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coreimpur%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coreimpur%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coreimpur%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coreimpur%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coreimpur%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coreimpur%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)

zmin (3198)	coreimpur%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coreimpur%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coreimpur%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coreimpur%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coreimpur%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coreimpur%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coreimpur%compositions%signature%description (string) (7.9.6.1.4)
atomic_data (3024)	coreimpur%atomic_data (vecstring_type) (7.9.6.1.20)
impurity (3024)	coreimpur%impurity(:) (impurity_type) (7.9.6.1.257)
z (3251)	coreimpur%impurity(:)%z (matflt_type) (7.9.6.1.15)
zsq (3251)	coreimpur%impurity(:)%zsq (matflt_type) (7.9.6.1.15)
nz (3251)	coreimpur%impurity(:)%nz (matflt_type) (7.9.6.1.15)
tz (3251)	coreimpur%impurity(:)%tz (matflt_type) (7.9.6.1.15)
source_term (3251)	coreimpur%impurity(:)%source_term (sourceimp) (7.9.6.1.426)
value (3420)	coreimpur%impurity(:)%source_term%value (matflt_type) (7.9.6.1.15)
integral (3420)	coreimpur%impurity(:)%source_term%integral (matflt_type) (7.9.6.1.15)
source (3420)	coreimpur%impurity(:)%source_term%source (vecstring_type) (7.9.6.1.20)
boundary (3251)	coreimpur%impurity(:)%boundary (boundaryimp) (7.9.6.1.91)
value (3085)	coreimpur%impurity(:)%boundary%value (matflt_type) (7.9.6.1.15)
source (3085)	coreimpur%impurity(:)%boundary%source (string) (7.9.6.1.4)
type (3085)	coreimpur%impurity(:)%boundary%type (vecint_type) (7.9.6.1.19)
rho (3085)	coreimpur%impurity(:)%boundary%rho (vecflt_type) (7.9.6.1.18)
codeparam (3085)	coreimpur%impurity(:)%boundary%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreimpur%impurity(:)%boundary%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreimpur%impurity(:)%boundary%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreimpur%impurity(:)%boundary%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreimpur%impurity(:)%boundary%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreimpur%impurity(:)%boundary%codeparam%output_flag (integer) (7.9.6.1.3)
transp_coef (3251)	coreimpur%impurity(:)%transp_coef (coretransimp) (7.9.6.1.147)
diff (3141)	coreimpur%impurity(:)%transp_coef%diff (matflt_type) (7.9.6.1.15)
vconv (3141)	coreimpur%impurity(:)%transp_coef%vconv (matflt_type) (7.9.6.1.15)
source (3141)	coreimpur%impurity(:)%transp_coef%source (vecstring_type) (7.9.6.1.20)
flux (3251)	coreimpur%impurity(:)%flux (fluximp) (7.9.6.1.225)
flux_dv (3219)	coreimpur%impurity(:)%flux%flux_dv (matflt_type) (7.9.6.1.15)
flux_interp (3219)	coreimpur%impurity(:)%flux%flux_interp (matflt_type) (7.9.6.1.15)
time_deriv (3251)	coreimpur%impurity(:)%time_deriv (matflt_type) (7.9.6.1.15)
diagnostic (3251)	coreimpur%impurity(:)%diagnostic (coreimpurediag_type) (7.9.6.1.138)
radiation (3132)	coreimpur%impurity(:)%diagnostic%radiation (coreimpurediag_radiation) (7.9.6.1.135)
line_rad (3129)	coreimpur%impurity(:)%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.6.1.15)
brem_radrec (3129)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.6.1.15)
sum (3129)	coreimpur%impurity(:)%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%radiation%sum%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%radiation%sum%integral (matflt_type) (7.9.6.1.15)
energy (3132)	coreimpur%impurity(:)%diagnostic%energy (coreimpurediag_energy) (7.9.6.1.134)
ionization (3128)	coreimpur%impurity(:)%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%energy%ionization%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%energy%ionization%integral (matflt_type) (7.9.6.1.15)
recombin (3128)	coreimpur%impurity(:)%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%energy%recombin%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%energy%recombin%integral (matflt_type) (7.9.6.1.15)
sum (3128)	coreimpur%impurity(:)%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%impurity(:)%diagnostic%energy%sum%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%impurity(:)%diagnostic%energy%sum%integral (matflt_type) (7.9.6.1.15)

diagnostic (3024)	coreimpur%diagnostic (coreimpurediag_type) (7.9.6.1.138)
radiation (3132)	coreimpur%diagnostic%radiation (coreimpurediag_radiation) (7.9.6.1.135)
line_rad (3129)	coreimpur%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.6.1.15)
brem_radrec (3129)	coreimpur%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.6.1.15)
sum (3129)	coreimpur%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%radiation%sum%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%radiation%sum%integral (matflt_type) (7.9.6.1.15)
energy (3132)	coreimpur%diagnostic%energy (coreimpurediag_energy) (7.9.6.1.134)
ionization (3128)	coreimpur%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%energy%ionization%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%energy%ionization%integral (matflt_type) (7.9.6.1.15)
recombin (3128)	coreimpur%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%energy%recombin%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%energy%recombin%integral (matflt_type) (7.9.6.1.15)
sum (3128)	coreimpur%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.6.1.139)
profile (3133)	coreimpur%diagnostic%energy%sum%profile (matflt_type) (7.9.6.1.15)
integral (3133)	coreimpur%diagnostic%energy%sum%integral (matflt_type) (7.9.6.1.15)
diagnosticsum (3024)	coreimpur%diagnosticsum (coreimpurediag_sum) (7.9.6.1.136)
radiation (3130)	coreimpur%diagnosticsum%radiation (coreimpurdiag_sum_radiation) (7.9.6.1.133)
line_rad (3127)	coreimpur%diagnosticsum%radiation%line_rad (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%radiation%line_rad%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%radiation%line_rad%integral (vecflt_type) (7.9.6.1.18)
brem_radrec (3127)	coreimpur%diagnosticsum%radiation%brem_radrec (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%radiation%brem_radrec%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%radiation%brem_radrec%integral (vecflt_type) (7.9.6.1.18)
sum (3127)	coreimpur%diagnosticsum%radiation%sum (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%radiation%sum%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%radiation%sum%integral (vecflt_type) (7.9.6.1.18)
energy (3130)	coreimpur%diagnosticsum%energy (coreimpurediag_sum_energy) (7.9.6.1.137)
ionization (3131)	coreimpur%diagnosticsum%energy%ionization (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%energy%ionization%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%energy%ionization%integral (vecflt_type) (7.9.6.1.18)
recombin (3131)	coreimpur%diagnosticsum%energy%recombin (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%energy%recombin%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%energy%recombin%integral (vecflt_type) (7.9.6.1.18)
sum (3131)	coreimpur%diagnosticsum%energy%sum (coreimpurediagsum_type) (7.9.6.1.140)
profile (3134)	coreimpur%diagnosticsum%energy%sum%profile (vecflt_type) (7.9.6.1.18)
integral (3134)	coreimpur%diagnosticsum%energy%sum%integral (vecflt_type) (7.9.6.1.18)
codeparam (3024)	coreimpur%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreimpur%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreimpur%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreimpur%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreimpur%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreimpur%codeparam%output_flag (integer) (7.9.6.1.3)
time (3024)	coreimpur%time (float) (7.9.6.1.2)

7.9.6.2.9 coreneutrals

datainfo (3025)	coreneutrals%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	coreneutrals%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coreneutrals%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coreneutrals%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coreneutrals%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coreneutrals%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coreneutrals%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coreneutrals%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coreneutrals%datainfo%whatref (whatref) (7.9.6.1.524)

user (3518)	coreneutrals%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coreneutrals%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coreneutrals%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coreneutrals%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coreneutrals%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coreneutrals%datainfo%putinfo%rights (string) (7.9.6.1.4)
rho_tor (3025)	coreneutrals%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3025)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3025)	coreneutrals%psi (vecflt_type) (7.9.6.1.18)
volume (3025)	coreneutrals%volume (vecflt_type) (7.9.6.1.18)
area (3025)	coreneutrals%area (vecflt_type) (7.9.6.1.18)
neutcompo (3025)	coreneutrals%neutcompo (composition_neutrals) (7.9.6.1.117)
atomlist (3111)	coreneutrals%neutcompo%atomlist(:) (coreneutrals_atomlist) (7.9.6.1.141)
amn (3135)	coreneutrals%neutcompo%atomlist(:)%amn (float) (7.9.6.1.2)
zn (3135)	coreneutrals%neutcompo%atomlist(:)%zn (float) (7.9.6.1.2)
ionimptype (3135)	coreneutrals%neutcompo%atomlist(:)%ionimptype (identifier) (7.9.6.1.254)
id (3248)	coreneutrals%neutcompo%atomlist(:)%ionimptype%id (string) (7.9.6.1.4)
flag (3248)	coreneutrals%neutcompo%atomlist(:)%ionimptype%flag (integer) (7.9.6.1.3)
description (3248)	coreneutrals%neutcompo%atomlist(:)%ionimptype%description (string) (7.9.6.1.4)
ionimpindex (3135)	coreneutrals%neutcompo%atomlist(:)%ionimpindex (integer) (7.9.6.1.3)
neutral (3111)	coreneutrals%neutcompo%neutral(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coreneutrals%neutcompo%neutral(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coreneutrals%neutcompo%neutral(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coreneutrals%neutcompo%neutral(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coreneutrals%neutcompo%neutral(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coreneutrals%neutcompo%neutral(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coreneutrals%neutcompo%neutral(:)%label (string) (7.9.6.1.4)
composition (3025)	coreneutrals%composition (composition) (7.9.6.1.116)
amn (3110)	coreneutrals%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	coreneutrals%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	coreneutrals%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	coreneutrals%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	coreneutrals%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3025)	coreneutrals%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coreneutrals%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coreneutrals%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	coreneutrals%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coreneutrals%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coreneutrals%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coreneutrals%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coreneutrals%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3025)	coreneutrals%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coreneutrals%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coreneutrals%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coreneutrals%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coreneutrals%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	coreneutrals%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	coreneutrals%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coreneutrals%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coreneutrals%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coreneutrals%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coreneutrals%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coreneutrals%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coreneutrals%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coreneutrals%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)

zmin (3250)	coreneutrals%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coreneutrals%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coreneutrals%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coreneutrals%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coreneutrals%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coreneutrals%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coreneutrals%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coreneutrals%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coreneutrals%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coreneutrals%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coreneutrals%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	coreneutrals%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coreneutrals%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coreneutrals%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coreneutrals%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coreneutrals%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coreneutrals%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coreneutrals%compositions%signature%description (string) (7.9.6.1.4)
profiles (3025)	coreneutrals%profiles(:) (neutral_complex_type) (7.9.6.1.308)
neutraltype (3302)	coreneutrals%profiles(:)%neutraltype(:) (coreneutrals_neutraltype) (7.9.6.1.142)
n0 (3136)	coreneutrals%profiles(:)%neutraltype(:)%n0 (corefieldneutral) (7.9.6.1.129)
value (3123)	coreneutrals%profiles(:)%neutraltype(:)%n0%value (vecflt_type) (7.9.6.1.18)
flux (3123)	coreneutrals%profiles(:)%neutraltype(:)%n0%flux (vecflt_type) (7.9.6.1.18)
boundary (3123)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary (boundary_neutrals) (7.9.6.1.89)
value (3083)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%value (vecflt_type) (7.9.6.1.18)
type (3083)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%type (integer) (7.9.6.1.3)
rho_tor (3083)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%rho_tor (float) (7.9.6.1.2)
t0 (3136)	coreneutrals%profiles(:)%neutraltype(:)%t0 (corefieldneutrale) (7.9.6.1.130)
value (3124)	coreneutrals%profiles(:)%neutraltype(:)%t0%value (vecflt_type) (7.9.6.1.18)
flux (3124)	coreneutrals%profiles(:)%neutraltype(:)%t0%flux (vecflt_type) (7.9.6.1.18)
boundary (3124)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary (boundary_neutrals) (7.9.6.1.89)
value (3083)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%value (vecflt_type) (7.9.6.1.18)
type (3083)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%type (integer) (7.9.6.1.3)
rho_tor (3083)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%rho_tor (float) (7.9.6.1.2)
v0 (3136)	coreneutrals%profiles(:)%neutraltype(:)%v0 (corefieldneutralv0) (7.9.6.1.132)
toroidal (3126)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal (corefieldneutralv) (7.9.6.1.131)
value (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%value (vecflt_type) (7.9.6.1.18)
boundary (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary (boundary_neutrals) (7.9.6.1.89)
value (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%value (vecflt_type) (7.9.6.1.18)
type (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%type (integer) (7.9.6.1.3)
rho_tor (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%rho_tor (float) (7.9.6.1.2)
poloidal (3126)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal (corefieldneutralv) (7.9.6.1.131)
value (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%value (vecflt_type) (7.9.6.1.18)
boundary (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary (boundary_neutrals) (7.9.6.1.89)
value (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%value (vecflt_type) (7.9.6.1.18)
type (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%type (integer) (7.9.6.1.3)
rho_tor (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%rho_tor (float) (7.9.6.1.2)
radial (3126)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial (corefieldneutralv) (7.9.6.1.131)
value (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%value (vecflt_type) (7.9.6.1.18)
boundary (3125)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary (boundary_neutrals) (7.9.6.1.89)
value (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%value (vecflt_type) (7.9.6.1.18)
type (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%type (integer) (7.9.6.1.3)
rho_tor (3083)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%rho_tor (float) (7.9.6.1.2)
prad0 (3302)	coreneutrals%profiles(:)%prad0 (vecflt_type) (7.9.6.1.18)

ioncoeff (3025)	coreneutrals%ioncoeff(:) (coefficients_neutrals) (7.9.6.1.99)
recycling (3093)	coreneutrals%ioncoeff(:)%recycling (recycling_neutrals) (7.9.6.1.365)
particles (3359)	coreneutrals%ioncoeff(:)%recycling%particles (vecflt_type) (7.9.6.1.18)
energy (3359)	coreneutrals%ioncoeff(:)%recycling%energy (vecflt_type) (7.9.6.1.18)
sputtering (3093)	coreneutrals%ioncoeff(:)%sputtering (sputtering_neutrals) (7.9.6.1.433)
physical (3427)	coreneutrals%ioncoeff(:)%sputtering%physical (vecflt_type) (7.9.6.1.18)
chemical (3427)	coreneutrals%ioncoeff(:)%sputtering%chemical (vecflt_type) (7.9.6.1.18)
impcoeff (3025)	coreneutrals%impcoeff(:) (impcoeff) (7.9.6.1.255)
chargestate (3249)	coreneutrals%impcoeff(:)%chargestate(:) (coefficients_neutrals) (7.9.6.1.99)
recycling (3093)	coreneutrals%impcoeff(:)%chargestate(:)%recycling (recycling_neutrals) (7.9.6.1.365)
particles (3359)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%particles (vecflt_type) (7.9.6.1.18)
energy (3359)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%energy (vecflt_type) (7.9.6.1.18)
sputtering (3093)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering (sputtering_neutrals) (7.9.6.1.433)
physical (3427)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%physical (vecflt_type) (7.9.6.1.18)
chemical (3427)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%chemical (vecflt_type) (7.9.6.1.18)
codeparam (3025)	coreneutrals%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreneutrals%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreneutrals%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreneutrals%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreneutrals%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreneutrals%codeparam%output_flag (integer) (7.9.6.1.3)
time (3025)	coreneutrals%time (float) (7.9.6.1.2)

7.9.6.2.10 coreprof

datainfo (3026)	coreprof%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	coreprof%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coreprof%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coreprof%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coreprof%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coreprof%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coreprof%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coreprof%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coreprof%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	coreprof%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coreprof%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coreprof%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coreprof%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coreprof%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coreprof%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coreprof%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coreprof%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coreprof%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coreprof%datainfo%putinfo%rights (string) (7.9.6.1.4)
rho_tor_norm (3026)	coreprof%rho_tor_norm (vecflt_type) (7.9.6.1.18)
rho_tor (3026)	coreprof%rho_tor (vecflt_type) (7.9.6.1.18)
drho_dt (3026)	coreprof%drho_dt (vecflt_type) (7.9.6.1.18)
toroid_field (3026)	coreprof%toroid_field (toroid_field) (7.9.6.1.477)
b0 (3471)	coreprof%toroid_field%b0 (float) (7.9.6.1.2)
b0prime (3471)	coreprof%toroid_field%b0prime (float) (7.9.6.1.2)
r0 (3471)	coreprof%toroid_field%r0 (float) (7.9.6.1.2)
time (3471)	coreprof%toroid_field%time (float) (7.9.6.1.2)
composition (3026)	coreprof%composition (composition) (7.9.6.1.116)
amn (3110)	coreprof%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	coreprof%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	coreprof%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	coreprof%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	coreprof%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3026)	coreprof%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coreprof%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coreprof%desc_impur%zn (vecint_type) (7.9.6.1.19)

i_ion (3150)	coreprof%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coreprof%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coreprof%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coreprof%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coreprof%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3026)	coreprof%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coreprof%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coreprof%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coreprof%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coreprof%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	coreprof%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	coreprof%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coreprof%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coreprof%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coreprof%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coreprof%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coreprof%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coreprof%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coreprof%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	coreprof%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coreprof%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coreprof%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coreprof%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coreprof%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coreprof%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coreprof%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coreprof%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coreprof%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coreprof%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coreprof%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coreprof%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	coreprof%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coreprof%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coreprof%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coreprof%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coreprof%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coreprof%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coreprof%compositions%signature%description (string) (7.9.6.1.4)
psi (3026)	coreprof%psi (psi) (7.9.6.1.359)
value (3353)	coreprof%psi%value (vecflt_type) (7.9.6.1.18)
ddrho (3353)	coreprof%psi%ddrho (vecflt_type) (7.9.6.1.18)
d2drho2 (3353)	coreprof%psi%d2drho2 (vecflt_type) (7.9.6.1.18)
ddt_rhotorn (3353)	coreprof%psi%ddt_rhotorn (vecflt_type) (7.9.6.1.18)
ddt_phi (3353)	coreprof%psi%ddt_phi (vecflt_type) (7.9.6.1.18)
source (3353)	coreprof%psi%source (string) (7.9.6.1.4)
flag (3353)	coreprof%psi%flag (integer) (7.9.6.1.3)
boundary (3353)	coreprof%psi%boundary (boundary) (7.9.6.1.88)
value (3082)	coreprof%psi%boundary%value (vecflt_type) (7.9.6.1.18)
source (3082)	coreprof%psi%boundary%source (string) (7.9.6.1.4)
type (3082)	coreprof%psi%boundary%type (integer) (7.9.6.1.3)
rho (3082)	coreprof%psi%boundary%rho (float) (7.9.6.1.2)
codeparam (3082)	coreprof%psi%boundary%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%psi%boundary%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.6.1.3)
jni (3353)	coreprof%psi%jni (jni) (7.9.6.1.261)
value (3255)	coreprof%psi%jni%value (vecflt_type) (7.9.6.1.18)

integral (3255)	coreprof%psi%jni%integral (vecflt_type) (7.9.6.1.18)
source (3255)	coreprof%psi%jni%source (string) (7.9.6.1.4)
sigma_par (3353)	coreprof%psi%sigma_par (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%psi%sigma_par%source (string) (7.9.6.1.4)
codeparam (3353)	coreprof%psi%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%psi%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%psi%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%psi%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%psi%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%psi%codeparam%output_flag (integer) (7.9.6.1.3)
te (3026)	coreprof%te (corefield) (7.9.6.1.127)
value (3121)	coreprof%te%value (vecflt_type) (7.9.6.1.18)
ddrho (3121)	coreprof%te%ddrho (vecflt_type) (7.9.6.1.18)
d2drho2 (3121)	coreprof%te%d2drho2 (vecflt_type) (7.9.6.1.18)
ddt (3121)	coreprof%te%ddt (vecflt_type) (7.9.6.1.18)
source (3121)	coreprof%te%source (string) (7.9.6.1.4)
flag (3121)	coreprof%te%flag (integer) (7.9.6.1.3)
boundary (3121)	coreprof%te%boundary (boundaryel) (7.9.6.1.90)
value (3084)	coreprof%te%boundary%value (vecflt_type) (7.9.6.1.18)
source (3084)	coreprof%te%boundary%source (string) (7.9.6.1.4)
type (3084)	coreprof%te%boundary%type (integer) (7.9.6.1.3)
rho_tor (3084)	coreprof%te%boundary%rho_tor (float) (7.9.6.1.2)
source_term (3121)	coreprof%te%source_term (sourceel) (7.9.6.1.425)
value (3419)	coreprof%te%source_term%value (vecflt_type) (7.9.6.1.18)
integral (3419)	coreprof%te%source_term%integral (vecflt_type) (7.9.6.1.18)
source (3419)	coreprof%te%source_term%source (string) (7.9.6.1.4)
transp_coef (3121)	coreprof%te%transp_coef (coretransel) (7.9.6.1.146)
diff (3140)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.6.1.18)
vconv (3140)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.6.1.18)
source (3140)	coreprof%te%transp_coef%source (string) (7.9.6.1.4)
flux (3121)	coreprof%te%flux (fluxel) (7.9.6.1.224)
flux_dv (3218)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.6.1.18)
flux_interp (3218)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.6.1.18)
flux_dv_surf (3121)	coreprof%te%flux_dv_surf (vecflt_type) (7.9.6.1.18)
time_deriv (3121)	coreprof%te%time_deriv (vecflt_type) (7.9.6.1.18)
codeparam (3121)	coreprof%te%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%te%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%te%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%te%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%te%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%te%codeparam%output_flag (integer) (7.9.6.1.3)
ti (3026)	coreprof%ti (corefieldion) (7.9.6.1.128)
value (3122)	coreprof%ti%value (matflt_type) (7.9.6.1.15)
ddrho (3122)	coreprof%ti%ddrho (matflt_type) (7.9.6.1.15)
d2drho2 (3122)	coreprof%ti%d2drho2 (matflt_type) (7.9.6.1.15)
ddt (3122)	coreprof%ti%ddt (matflt_type) (7.9.6.1.15)
source (3122)	coreprof%ti%source (vecstring_type) (7.9.6.1.20)
flag (3122)	coreprof%ti%flag (vecint_type) (7.9.6.1.19)
boundary (3122)	coreprof%ti%boundary (boundaryion) (7.9.6.1.92)
value (3086)	coreprof%ti%boundary%value (matflt_type) (7.9.6.1.15)
source (3086)	coreprof%ti%boundary%source (vecstring_type) (7.9.6.1.20)
type (3086)	coreprof%ti%boundary%type (vecint_type) (7.9.6.1.19)
rho_tor (3086)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.6.1.18)
source_term (3122)	coreprof%ti%source_term (sourceion) (7.9.6.1.427)
value (3421)	coreprof%ti%source_term%value (matflt_type) (7.9.6.1.15)
integral (3421)	coreprof%ti%source_term%integral (matflt_type) (7.9.6.1.15)
source (3421)	coreprof%ti%source_term%source (vecstring_type) (7.9.6.1.20)
transp_coef (3122)	coreprof%ti%transp_coef (coretransion) (7.9.6.1.148)
diff (3142)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.6.1.15)
vconv (3142)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.6.1.15)

source (3142)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.6.1.20)
flux (3122)	coreprof%ti%flux (fluxion) (7.9.6.1.226)
flux_dv (3220)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.6.1.15)
flux_interp (3220)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.6.1.15)
flux_dv_surf (3122)	coreprof%ti%flux_dv_surf (matflt_type) (7.9.6.1.15)
time_deriv (3122)	coreprof%ti%time_deriv (matflt_type) (7.9.6.1.15)
codeparam (3122)	coreprof%ti%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%ti%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%ti%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%ti%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%ti%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%ti%codeparam%output_flag (integer) (7.9.6.1.3)
ne (3026)	coreprof%ne (corefield) (7.9.6.1.127)
value (3121)	coreprof%ne%value (vecflt_type) (7.9.6.1.18)
ddrho (3121)	coreprof%ne%ddrho (vecflt_type) (7.9.6.1.18)
d2drho2 (3121)	coreprof%ne%d2drho2 (vecflt_type) (7.9.6.1.18)
ddt (3121)	coreprof%ne%ddt (vecflt_type) (7.9.6.1.18)
source (3121)	coreprof%ne%source (string) (7.9.6.1.4)
flag (3121)	coreprof%ne%flag (integer) (7.9.6.1.3)
boundary (3121)	coreprof%ne%boundary (boundaryel) (7.9.6.1.90)
value (3084)	coreprof%ne%boundary%value (vecflt_type) (7.9.6.1.18)
source (3084)	coreprof%ne%boundary%source (string) (7.9.6.1.4)
type (3084)	coreprof%ne%boundary%type (integer) (7.9.6.1.3)
rho_tor (3084)	coreprof%ne%boundary%rho_tor (float) (7.9.6.1.2)
source_term (3121)	coreprof%ne%source_term (sourceel) (7.9.6.1.425)
value (3419)	coreprof%ne%source_term%value (vecflt_type) (7.9.6.1.18)
integral (3419)	coreprof%ne%source_term%integral (vecflt_type) (7.9.6.1.18)
source (3419)	coreprof%ne%source_term%source (string) (7.9.6.1.4)
transp_coef (3121)	coreprof%ne%transp_coef (coretransel) (7.9.6.1.146)
diff (3140)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.6.1.18)
vconv (3140)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.6.1.18)
source (3140)	coreprof%ne%transp_coef%source (string) (7.9.6.1.4)
flux (3121)	coreprof%ne%flux (fluxel) (7.9.6.1.224)
flux_dv (3218)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.6.1.18)
flux_interp (3218)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.6.1.18)
flux_dv_surf (3121)	coreprof%ne%flux_dv_surf (vecflt_type) (7.9.6.1.18)
time_deriv (3121)	coreprof%ne%time_deriv (vecflt_type) (7.9.6.1.18)
codeparam (3121)	coreprof%ne%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%ne%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%ne%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%ne%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%ne%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%ne%codeparam%output_flag (integer) (7.9.6.1.3)
ni (3026)	coreprof%ni (corefieldion) (7.9.6.1.128)
value (3122)	coreprof%ni%value (matflt_type) (7.9.6.1.15)
ddrho (3122)	coreprof%ni%ddrho (matflt_type) (7.9.6.1.15)
d2drho2 (3122)	coreprof%ni%d2drho2 (matflt_type) (7.9.6.1.15)
ddt (3122)	coreprof%ni%ddt (matflt_type) (7.9.6.1.15)
source (3122)	coreprof%ni%source (vecstring_type) (7.9.6.1.20)
flag (3122)	coreprof%ni%flag (vecint_type) (7.9.6.1.19)
boundary (3122)	coreprof%ni%boundary (boundaryion) (7.9.6.1.92)
value (3086)	coreprof%ni%boundary%value (matflt_type) (7.9.6.1.15)
source (3086)	coreprof%ni%boundary%source (vecstring_type) (7.9.6.1.20)
type (3086)	coreprof%ni%boundary%type (vecint_type) (7.9.6.1.19)
rho_tor (3086)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.6.1.18)
source_term (3122)	coreprof%ni%source_term (sourceion) (7.9.6.1.427)
value (3421)	coreprof%ni%source_term%value (matflt_type) (7.9.6.1.15)
integral (3421)	coreprof%ni%source_term%integral (matflt_type) (7.9.6.1.15)
source (3421)	coreprof%ni%source_term%source (vecstring_type) (7.9.6.1.20)
transp_coef (3122)	coreprof%ni%transp_coef (coretransion) (7.9.6.1.148)
diff (3142)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.6.1.15)

vconv (3142)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.6.1.15)
source (3142)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.6.1.20)
flux (3122)	coreprof%ni%flux (fluxion) (7.9.6.1.226)
flux_dv (3220)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.6.1.15)
flux_interp (3220)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.6.1.15)
flux_dv_surf (3122)	coreprof%ni%flux_dv_surf (matflt_type) (7.9.6.1.15)
time_deriv (3122)	coreprof%ni%time_deriv (matflt_type) (7.9.6.1.15)
codeparam (3122)	coreprof%ni%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%ni%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%ni%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%ni%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%ni%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%ni%codeparam%output_flag (integer) (7.9.6.1.3)
vtor (3026)	coreprof%vtor (corefieldion) (7.9.6.1.128)
value (3122)	coreprof%vtor%value (matflt_type) (7.9.6.1.15)
ddrho (3122)	coreprof%vtor%ddrho (matflt_type) (7.9.6.1.15)
d2drho2 (3122)	coreprof%vtor%d2drho2 (matflt_type) (7.9.6.1.15)
ddt (3122)	coreprof%vtor%ddt (matflt_type) (7.9.6.1.15)
source (3122)	coreprof%vtor%source (vecstring_type) (7.9.6.1.20)
flag (3122)	coreprof%vtor%flag (vecint_type) (7.9.6.1.19)
boundary (3122)	coreprof%vtor%boundary (boundaryion) (7.9.6.1.92)
value (3086)	coreprof%vtor%boundary%value (matflt_type) (7.9.6.1.15)
source (3086)	coreprof%vtor%boundary%source (vecstring_type) (7.9.6.1.20)
type (3086)	coreprof%vtor%boundary%type (vecint_type) (7.9.6.1.19)
rho_tor (3086)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.6.1.18)
source_term (3122)	coreprof%vtor%source_term (sourceion) (7.9.6.1.427)
value (3421)	coreprof%vtor%source_term%value (matflt_type) (7.9.6.1.15)
integral (3421)	coreprof%vtor%source_term%integral (matflt_type) (7.9.6.1.15)
source (3421)	coreprof%vtor%source_term%source (vecstring_type) (7.9.6.1.20)
transp_coef (3122)	coreprof%vtor%transp_coef (coretransion) (7.9.6.1.148)
diff (3142)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.6.1.15)
vconv (3142)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.6.1.15)
source (3142)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.6.1.20)
flux (3122)	coreprof%vtor%flux (fluxion) (7.9.6.1.226)
flux_dv (3220)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.6.1.15)
flux_interp (3220)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.6.1.15)
flux_dv_surf (3122)	coreprof%vtor%flux_dv_surf (matflt_type) (7.9.6.1.15)
time_deriv (3122)	coreprof%vtor%time_deriv (matflt_type) (7.9.6.1.15)
codeparam (3122)	coreprof%vtor%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%vtor%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%vtor%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%vtor%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%vtor%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%vtor%codeparam%output_flag (integer) (7.9.6.1.3)
profiles1d (3026)	coreprof%profiles1d (profiles1d) (7.9.6.1.357)
pe (3351)	coreprof%profiles1d%pe (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%pe%source (string) (7.9.6.1.4)
dpedt (3351)	coreprof%profiles1d%dpedt (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%dpedt%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%dpedt%source (string) (7.9.6.1.4)
pi (3351)	coreprof%profiles1d%pi (coreprofion) (7.9.6.1.144)
value (3138)	coreprof%profiles1d%pi%value (matflt_type) (7.9.6.1.15)
source (3138)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.6.1.20)
pi_tot (3351)	coreprof%profiles1d%pi_tot (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%pi_tot%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%pi_tot%source (string) (7.9.6.1.4)
dpi_totdt (3351)	coreprof%profiles1d%dpi_totdt (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%dpi_totdt%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%dpi_totdt%source (string) (7.9.6.1.4)
pr_th (3351)	coreprof%profiles1d%pr_th (coreprofile) (7.9.6.1.143)

value (3137)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%pr_th%source (string) (7.9.6.1.4)
pr_perp (3351)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%pr_perp%source (string) (7.9.6.1.4)
pr_parallel (3351)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%pr_parallel%source (string) (7.9.6.1.4)
jtot (3351)	coreprof%profiles1d%jtot (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%jtot%source (string) (7.9.6.1.4)
jni (3351)	coreprof%profiles1d%jni (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%jni%source (string) (7.9.6.1.4)
jphi (3351)	coreprof%profiles1d%jphi (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%jphi%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%jphi%source (string) (7.9.6.1.4)
joh (3351)	coreprof%profiles1d%joh (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%joh%source (string) (7.9.6.1.4)
vloop (3351)	coreprof%profiles1d%vloop (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%vloop%source (string) (7.9.6.1.4)
sigmapar (3351)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%sigmapar%source (string) (7.9.6.1.4)
qoh (3351)	coreprof%profiles1d%qoh (sourceel) (7.9.6.1.425)
value (3419)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.6.1.18)
integral (3419)	coreprof%profiles1d%qoh%integral (vecflt_type) (7.9.6.1.18)
source (3419)	coreprof%profiles1d%qoh%source (string) (7.9.6.1.4)
qei (3351)	coreprof%profiles1d%qei (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%qei%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%qei%source (string) (7.9.6.1.4)
eparallel (3351)	coreprof%profiles1d%eparallel (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%eparallel%source (string) (7.9.6.1.4)
e_b (3351)	coreprof%profiles1d%e_b (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%e_b%source (string) (7.9.6.1.4)
q (3351)	coreprof%profiles1d%q (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%q%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%q%source (string) (7.9.6.1.4)
shear (3351)	coreprof%profiles1d%shear (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%shear%source (string) (7.9.6.1.4)
ns (3351)	coreprof%profiles1d%ns (coreprofion) (7.9.6.1.144)
value (3138)	coreprof%profiles1d%ns%value (matflt_type) (7.9.6.1.15)
source (3138)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.6.1.20)
mtor (3351)	coreprof%profiles1d%mtor (coreprofion) (7.9.6.1.144)
value (3138)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.6.1.15)
source (3138)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.6.1.20)
wtor (3351)	coreprof%profiles1d%wtor (coreprofion) (7.9.6.1.144)
value (3138)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.6.1.15)
source (3138)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.6.1.20)
zeff (3351)	coreprof%profiles1d%zeff (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%zeff%source (string) (7.9.6.1.4)
bpol (3351)	coreprof%profiles1d%bpol (coreprofile) (7.9.6.1.143)
value (3137)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%bpol%source (string) (7.9.6.1.4)
dvprimedt (3351)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.6.1.143)

value (3137)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.6.1.18)
source (3137)	coreprof%profiles1d%dvprimedt%source (string) (7.9.6.1.4)
globalparam (3026)	coreprof%globalparam (globalparam) (7.9.6.1.248)
current_tot (3242)	coreprof%globalparam%current_tot (float) (7.9.6.1.2)
current_bnd (3242)	coreprof%globalparam%current_bnd (float) (7.9.6.1.2)
current_ni (3242)	coreprof%globalparam%current_ni (float) (7.9.6.1.2)
vloop (3242)	coreprof%globalparam%vloop (float) (7.9.6.1.2)
li (3242)	coreprof%globalparam%li (float) (7.9.6.1.2)
beta_tor (3242)	coreprof%globalparam%beta_tor (float) (7.9.6.1.2)
beta_normal (3242)	coreprof%globalparam%beta_normal (float) (7.9.6.1.2)
beta_pol (3242)	coreprof%globalparam%beta_pol (float) (7.9.6.1.2)
w_dia (3242)	coreprof%globalparam%w_dia (float) (7.9.6.1.2)
codeparam (3026)	coreprof%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coreprof%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coreprof%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coreprof%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coreprof%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coreprof%codeparam%output_flag (integer) (7.9.6.1.3)
time (3026)	coreprof%time (float) (7.9.6.1.2)

7.9.6.2.11 coresource

datainfo (3027)	coresource%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	coresource%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coresource%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coresource%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coresource%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coresource%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coresource%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coresource%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coresource%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	coresource%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coresource%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coresource%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coresource%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coresource%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coresource%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coresource%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coresource%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coresource%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coresource%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3027)	coresource%composition (composition) (7.9.6.1.116)
amn (3110)	coresource%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	coresource%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	coresource%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	coresource%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	coresource%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3027)	coresource%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coresource%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coresource%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	coresource%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coresource%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coresource%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coresource%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coresource%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3027)	coresource%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coresource%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coresource%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coresource%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coresource%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	coresource%compositions%ions(:) (ions) (7.9.6.1.259)

nucindex (3253)	coresource%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coresource%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coresource%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coresource%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coresource%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coresource%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coresource%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coresource%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	coresource%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coresource%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coresource%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coresource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coresource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coresource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coresource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coresource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coresource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coresource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coresource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coresource%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coresource%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coresource%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	coresource%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coresource%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coresource%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coresource%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coresource%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coresource%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coresource%compositions%signature%description (string) (7.9.6.1.4)
toroid_field (3027)	coresource%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	coresource%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	coresource%toroid_field%b0 (float) (7.9.6.1.2)
values (3027)	coresource%values(:) (coresource_values) (7.9.6.1.145)
sourceid (3139)	coresource%values(:)%sourceid (identifier) (7.9.6.1.254)
id (3248)	coresource%values(:)%sourceid%id (string) (7.9.6.1.4)
flag (3248)	coresource%values(:)%sourceid%flag (integer) (7.9.6.1.3)
description (3248)	coresource%values(:)%sourceid%description (string) (7.9.6.1.4)
rho_tor (3139)	coresource%values(:)%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3139)	coresource%values(:)%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3139)	coresource%values(:)%psi (vecflt_type) (7.9.6.1.18)
volume (3139)	coresource%values(:)%volume (vecflt_type) (7.9.6.1.18)
area (3139)	coresource%values(:)%area (vecflt_type) (7.9.6.1.18)
j (3139)	coresource%values(:)%j (vecflt_type) (7.9.6.1.18)
sigma (3139)	coresource%values(:)%sigma (vecflt_type) (7.9.6.1.18)
si (3139)	coresource%values(:)%si (source_ion) (7.9.6.1.422)
exp (3416)	coresource%values(:)%si%exp (matflt_type) (7.9.6.1.15)
imp (3416)	coresource%values(:)%si%imp (matflt_type) (7.9.6.1.15)
se (3139)	coresource%values(:)%se (source_vec) (7.9.6.1.424)
exp (3418)	coresource%values(:)%se%exp (vecflt_type) (7.9.6.1.18)
imp (3418)	coresource%values(:)%se%imp (vecflt_type) (7.9.6.1.18)
sz (3139)	coresource%values(:)%sz(:) (source_imp) (7.9.6.1.421)
exp (3415)	coresource%values(:)%sz(:)%exp (matflt_type) (7.9.6.1.15)
imp (3415)	coresource%values(:)%sz(:)%imp (matflt_type) (7.9.6.1.15)
qi (3139)	coresource%values(:)%qi (source_ion) (7.9.6.1.422)
exp (3416)	coresource%values(:)%qi%exp (matflt_type) (7.9.6.1.15)
imp (3416)	coresource%values(:)%qi%imp (matflt_type) (7.9.6.1.15)
qe (3139)	coresource%values(:)%qe (source_vec) (7.9.6.1.424)
exp (3418)	coresource%values(:)%qe%exp (vecflt_type) (7.9.6.1.18)
imp (3418)	coresource%values(:)%qe%imp (vecflt_type) (7.9.6.1.18)
qz (3139)	coresource%values(:)%qz(:) (source_imp) (7.9.6.1.421)
exp (3415)	coresource%values(:)%qz(:)%exp (matflt_type) (7.9.6.1.15)

imp (3415)	coresource%values(:)%qz(:)%imp (matflt_type) (7.9.6.1.15)
ui (3139)	coresource%values(:)%ui (source_ion) (7.9.6.1.422)
exp (3416)	coresource%values(:)%ui%exp (matflt_type) (7.9.6.1.15)
imp (3416)	coresource%values(:)%ui%imp (matflt_type) (7.9.6.1.15)
ujxb (3139)	coresource%values(:)%ujxb (source_vec) (7.9.6.1.424)
exp (3418)	coresource%values(:)%ujxb%exp (vecflt_type) (7.9.6.1.18)
imp (3418)	coresource%values(:)%ujxb%imp (vecflt_type) (7.9.6.1.18)
codeparam (3139)	coresource%values(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coresource%values(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coresource%values(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coresource%values(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coresource%values(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coresource%values(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3027)	coresource%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coresource%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coresource%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coresource%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coresource%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coresource%codeparam%output_flag (integer) (7.9.6.1.3)
time (3027)	coresource%time (float) (7.9.6.1.2)

7.9.6.2.12 coretransp

datainfo (3028)	coretransp%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	coretransp%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	coretransp%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	coretransp%datainfo%source (string) (7.9.6.1.4)
comment (3148)	coretransp%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	coretransp%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	coretransp%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	coretransp%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	coretransp%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	coretransp%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	coretransp%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	coretransp%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	coretransp%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	coretransp%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	coretransp%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	coretransp%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	coretransp%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	coretransp%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	coretransp%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3028)	coretransp%composition (composition) (7.9.6.1.116)
amn (3110)	coretransp%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	coretransp%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	coretransp%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	coretransp%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	coretransp%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3028)	coretransp%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	coretransp%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	coretransp%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	coretransp%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	coretransp%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	coretransp%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	coretransp%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	coretransp%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3028)	coretransp%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	coretransp%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	coretransp%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	coretransp%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	coretransp%compositions%nuclei(:)%label (string) (7.9.6.1.4)

ions (3114)	coretransp%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	coretransp%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	coretransp%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	coretransp%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	coretransp%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	coretransp%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	coretransp%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	coretransp%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	coretransp%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	coretransp%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	coretransp%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	coretransp%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	coretransp%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	coretransp%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	coretransp%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	coretransp%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	coretransp%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	coretransp%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	coretransp%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	coretransp%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	coretransp%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	coretransp%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	coretransp%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	coretransp%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	coretransp%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	coretransp%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	coretransp%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	coretransp%compositions%signature%description (string) (7.9.6.1.4)
values (3028)	coretransp%values(:) (coretransp_values) (7.9.6.1.149)
transportid (3143)	coretransp%values(:)%transportid (identifier) (7.9.6.1.254)
id (3248)	coretransp%values(:)%transportid%id (string) (7.9.6.1.4)
flag (3248)	coretransp%values(:)%transportid%flag (integer) (7.9.6.1.3)
description (3248)	coretransp%values(:)%transportid%description (string) (7.9.6.1.4)
rho_tor_norm (3143)	coretransp%values(:)%rho_tor_norm (vecflt_type) (7.9.6.1.18)
rho_tor (3143)	coretransp%values(:)%rho_tor (vecflt_type) (7.9.6.1.18)
psi (3143)	coretransp%values(:)%psi (vecflt_type) (7.9.6.1.18)
volume (3143)	coretransp%values(:)%volume (vecflt_type) (7.9.6.1.18)
area (3143)	coretransp%values(:)%area (vecflt_type) (7.9.6.1.18)
sigma (3143)	coretransp%values(:)%sigma (vecflt_type) (7.9.6.1.18)
ni_transp (3143)	coretransp%values(:)%ni_transp (ni_transp) (7.9.6.1.310)
diff_eff (3304)	coretransp%values(:)%ni_transp%diff_eff (array3dflt_type) (7.9.6.1.7)
vconv_eff (3304)	coretransp%values(:)%ni_transp%vconv_eff (array3dflt_type) (7.9.6.1.7)
flux (3304)	coretransp%values(:)%ni_transp%flux (matflt_type) (7.9.6.1.15)
off_diagonal (3304)	coretransp%values(:)%ni_transp%off_diagonal (offdiagion) (7.9.6.1.320)
d_ni (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.6.1.7)
d_ti (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.6.1.7)
d_ne (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.6.1.15)
d_te (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_te (matflt_type) (7.9.6.1.15)
d_epar (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.6.1.15)
d_mtor (3314)	coretransp%values(:)%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.6.1.15)
flag (3304)	coretransp%values(:)%ni_transp%flag (integer) (7.9.6.1.3)
ne_transp (3143)	coretransp%values(:)%ne_transp (ne_transp) (7.9.6.1.306)
diff_eff (3300)	coretransp%values(:)%ne_transp%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3300)	coretransp%values(:)%ne_transp%vconv_eff (matflt_type) (7.9.6.1.15)
flux (3300)	coretransp%values(:)%ne_transp%flux (vecflt_type) (7.9.6.1.18)
off_diagonal (3300)	coretransp%values(:)%ne_transp%off_diagonal (offdiagel) (7.9.6.1.319)
d_ni (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.6.1.15)
d_ti (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.6.1.15)
d_ne (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.6.1.18)

d_te (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.6.1.18)
d_epar (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.6.1.18)
d_mtor (3313)	coretransp%values(:)%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.6.1.18)
flag (3300)	coretransp%values(:)%ne_transp%flag (integer) (7.9.6.1.3)
nz_transp (3143)	coretransp%values(:)%nz_transp(:) (transcoefimp) (7.9.6.1.480)
diff_eff (3474)	coretransp%values(:)%nz_transp(:)%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3474)	coretransp%values(:)%nz_transp(:)%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3474)	coretransp%values(:)%nz_transp(:)%exchange (matflt_type) (7.9.6.1.15)
flux (3474)	coretransp%values(:)%nz_transp(:)%flux (matflt_type) (7.9.6.1.15)
flag (3474)	coretransp%values(:)%nz_transp(:)%flag (integer) (7.9.6.1.3)
ti_transp (3143)	coretransp%values(:)%ti_transp (transcoefion) (7.9.6.1.481)
diff_eff (3475)	coretransp%values(:)%ti_transp%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3475)	coretransp%values(:)%ti_transp%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3475)	coretransp%values(:)%ti_transp%exchange (matflt_type) (7.9.6.1.15)
qgi (3475)	coretransp%values(:)%ti_transp%qgi (matflt_type) (7.9.6.1.15)
flux (3475)	coretransp%values(:)%ti_transp%flux (matflt_type) (7.9.6.1.15)
off_diagonal (3475)	coretransp%values(:)%ti_transp%off_diagonal (offdiagion) (7.9.6.1.320)
d_ni (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.6.1.7)
d_ti (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.6.1.7)
d_ne (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.6.1.15)
d_te (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_te (matflt_type) (7.9.6.1.15)
d_epar (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.6.1.15)
d_mtor (3314)	coretransp%values(:)%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.6.1.15)
flag (3475)	coretransp%values(:)%ti_transp%flag (integer) (7.9.6.1.3)
te_transp (3143)	coretransp%values(:)%te_transp (transcoefel) (7.9.6.1.479)
diff_eff (3473)	coretransp%values(:)%te_transp%diff_eff (vecflt_type) (7.9.6.1.18)
vconv_eff (3473)	coretransp%values(:)%te_transp%vconv_eff (vecflt_type) (7.9.6.1.18)
flux (3473)	coretransp%values(:)%te_transp%flux (vecflt_type) (7.9.6.1.18)
off_diagonal (3473)	coretransp%values(:)%te_transp%off_diagonal (offdiagel) (7.9.6.1.319)
d_ni (3313)	coretransp%values(:)%te_transp%off_diagonal%d_ni (matflt_type) (7.9.6.1.15)
d_ti (3313)	coretransp%values(:)%te_transp%off_diagonal%d_ti (matflt_type) (7.9.6.1.15)
d_ne (3313)	coretransp%values(:)%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.6.1.18)
d_te (3313)	coretransp%values(:)%te_transp%off_diagonal%d_te (vecflt_type) (7.9.6.1.18)
d_epar (3313)	coretransp%values(:)%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.6.1.18)
d_mtor (3313)	coretransp%values(:)%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.6.1.18)
flag (3473)	coretransp%values(:)%te_transp%flag (integer) (7.9.6.1.3)
tz_transp (3143)	coretransp%values(:)%tz_transp(:) (transcoefimp) (7.9.6.1.480)
diff_eff (3474)	coretransp%values(:)%tz_transp(:)%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3474)	coretransp%values(:)%tz_transp(:)%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3474)	coretransp%values(:)%tz_transp(:)%exchange (matflt_type) (7.9.6.1.15)
flux (3474)	coretransp%values(:)%tz_transp(:)%flux (matflt_type) (7.9.6.1.15)
flag (3474)	coretransp%values(:)%tz_transp(:)%flag (integer) (7.9.6.1.3)
vtor_transp (3143)	coretransp%values(:)%vtor_transp (transcoefvtor) (7.9.6.1.482)
diff_eff (3476)	coretransp%values(:)%vtor_transp%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3476)	coretransp%values(:)%vtor_transp%vconv_eff (matflt_type) (7.9.6.1.15)
flux (3476)	coretransp%values(:)%vtor_transp%flux (matflt_type) (7.9.6.1.15)
off_diagonal (3476)	coretransp%values(:)%vtor_transp%off_diagonal (offdiagion) (7.9.6.1.320)
d_ni (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.6.1.7)
d_ti (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.6.1.7)
d_ne (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.6.1.15)
d_te (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.6.1.15)
d_epar (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.6.1.15)
d_mtor (3314)	coretransp%values(:)%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.6.1.15)
flag (3476)	coretransp%values(:)%vtor_transp%flag (integer) (7.9.6.1.3)
codeparam (3143)	coretransp%values(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	coretransp%values(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coretransp%values(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coretransp%values(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coretransp%values(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coretransp%values(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3028)	coretransp%codeparam (codeparam) (7.9.6.1.98)

codename (3092)	coretransp%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	coretransp%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	coretransp%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	coretransp%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	coretransp%codeparam%output_flag (integer) (7.9.6.1.3)
time (3028)	coretransp%time (float) (7.9.6.1.2)

7.9.6.2.13 cxdiag

datainfo (3029)	cxdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	cxdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	cxdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	cxdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	cxdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	cxdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	cxdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	cxdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	cxdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	cxdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	cxdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	cxdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	cxdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	cxdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	cxdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3029)	cxdiag%setup (cxsetup) (7.9.6.1.152)
amn (3146)	cxdiag%setup%amn (vecflt_type) (7.9.6.1.18)
zn (3146)	cxdiag%setup%zn (vecflt_type) (7.9.6.1.18)
position (3146)	cxdiag%setup%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	cxdiag%setup%position%r (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%setup%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	cxdiag%setup%position%z (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%setup%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	cxdiag%setup%position%phi (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3029)	cxdiag%measure (cxmeasure) (7.9.6.1.151)
ti (3145)	cxdiag%measure%ti (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%measure%ti%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.6.1.18)
vtor (3145)	cxdiag%measure%vtor (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%measure%vtor%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.6.1.18)
vpol (3145)	cxdiag%measure%vpol (exp1D) (7.9.6.1.216)
value (3210)	cxdiag%measure%vpol%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3029)	cxdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	cxdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	cxdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	cxdiag%codeparam%parameters (string) (7.9.6.1.4)

output_diag (3092)	cxdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	cxdiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3029)	cxdiag%time (float) (7.9.6.1.2)

7.9.6.2.14 distribution

datainfo (3030)	distribution%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	distribution%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	distribution%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	distribution%datainfo%source (string) (7.9.6.1.4)
comment (3148)	distribution%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	distribution%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	distribution%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	distribution%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	distribution%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	distribution%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	distribution%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	distribution%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	distribution%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	distribution%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	distribution%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	distribution%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	distribution%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	distribution%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	distribution%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3030)	distribution%composition (composition) (7.9.6.1.116)
amn (3110)	distribution%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	distribution%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	distribution%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	distribution%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	distribution%composition%label (vecstring_type) (7.9.6.1.20)
compositions (3030)	distribution%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	distribution%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	distribution%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	distribution%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	distribution%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	distribution%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	distribution%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	distribution%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	distribution%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	distribution%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	distribution%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	distribution%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	distribution%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	distribution%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	distribution%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	distribution%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	distribution%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	distribution%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	distribution%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	distribution%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	distribution%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	distribution%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	distribution%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	distribution%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	distribution%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	distribution%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	distribution%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	distribution%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	distribution%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	distribution%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)

label (3198)	distribution%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	distribution%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	distribution%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	distribution%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	distribution%compositions%signature%description (string) (7.9.6.1.4)
distri_vec (3030)	distribution%distri_vec(:) (distri_vec) (7.9.6.1.185)
wave_id (3179)	distribution%distri_vec(:)%wave_id(:) (enum_instance) (7.9.6.1.207)
type (3201)	distribution%distri_vec(:)%wave_id(:)%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%wave_id(:)%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%wave_id(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%wave_id(:)%type%description (string) (7.9.6.1.4)
name (3201)	distribution%distri_vec(:)%wave_id(:)%name (string) (7.9.6.1.4)
index (3201)	distribution%distri_vec(:)%wave_id(:)%index (integer) (7.9.6.1.3)
source_id (3179)	distribution%distri_vec(:)%source_id(:) (enum_instance) (7.9.6.1.207)
type (3201)	distribution%distri_vec(:)%source_id(:)%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%source_id(:)%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%source_id(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%source_id(:)%type%description (string) (7.9.6.1.4)
name (3201)	distribution%distri_vec(:)%source_id(:)%name (string) (7.9.6.1.4)
index (3201)	distribution%distri_vec(:)%source_id(:)%index (integer) (7.9.6.1.3)
species (3179)	distribution%distri_vec(:)%species (species_reference) (7.9.6.1.429)
type (3423)	distribution%distri_vec(:)%species%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%species%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%species%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%species%type%description (string) (7.9.6.1.4)
index (3423)	distribution%distri_vec(:)%species%index (integer) (7.9.6.1.3)
gyro_type (3179)	distribution%distri_vec(:)%gyro_type (integer) (7.9.6.1.3)
fast_filter (3179)	distribution%distri_vec(:)%fast_filter (fast_thermal_separation_filter) (7.9.6.1.219)
method (3213)	distribution%distri_vec(:)%fast_filter%method (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%fast_filter%method%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%fast_filter%method%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%fast_filter%method%description (string) (7.9.6.1.4)
energy_sep (3213)	distribution%distri_vec(:)%fast_filter%energy_sep (vecflt_type) (7.9.6.1.18)
global_param (3179)	distribution%distri_vec(:)%global_param (dist_global_param) (7.9.6.1.170)
geometry (3164)	distribution%distri_vec(:)%global_param%geometry (dist_geometry_0d) (7.9.6.1.167)
mag_axis (3161)	distribution%distri_vec(:)%global_param%geometry%mag_axis (rz0D) (7.9.6.1.376)
r (3370)	distribution%distri_vec(:)%global_param%geometry%mag_axis%r (float) (7.9.6.1.2)
z (3370)	distribution%distri_vec(:)%global_param%geometry%mag_axis%z (float) (7.9.6.1.2)
toroid_field (3161)	distribution%distri_vec(:)%global_param%geometry%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	distribution%distri_vec(:)%global_param%geometry%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	distribution%distri_vec(:)%global_param%geometry%toroid_field%b0 (float) (7.9.6.1.2)
state (3164)	distribution%distri_vec(:)%global_param%state (dist_state_0d) (7.9.6.1.182)
n_particles (3176)	distribution%distri_vec(:)%global_param%state%n_particles (float) (7.9.6.1.2)
n_part_fast (3176)	distribution%distri_vec(:)%global_param%state%n_part_fast (float) (7.9.6.1.2)
enrg (3176)	distribution%distri_vec(:)%global_param%state%enrg (float) (7.9.6.1.2)
enrg_fast (3176)	distribution%distri_vec(:)%global_param%state%enrg_fast (float) (7.9.6.1.2)
enrg_fast_pa (3176)	distribution%distri_vec(:)%global_param%state%enrg_fast_pa (float) (7.9.6.1.2)
momentm_fast (3176)	distribution%distri_vec(:)%global_param%state%momentm_fast (vecflt_type) (7.9.6.1.18)
current_dr (3176)	distribution%distri_vec(:)%global_param%state%current_dr (float) (7.9.6.1.2)
torque_jrxb (3176)	distribution%distri_vec(:)%global_param%state%torque_jrxb (float) (7.9.6.1.2)
collisions_e (3164)	distribution%distri_vec(:)%global_param%collisions_e (dist_collisional_transfer_0d) (7.9.6.1.161)
power_th (3155)	distribution%distri_vec(:)%global_param%collisions_e%power_th (float) (7.9.6.1.2)
power_fast (3155)	distribution%distri_vec(:)%global_param%collisions_e%power_fast (float) (7.9.6.1.2)
torque_th (3155)	distribution%distri_vec(:)%global_param%collisions_e%torque_th (float) (7.9.6.1.2)
torque_fast (3155)	distribution%distri_vec(:)%global_param%collisions_e%torque_fast (float) (7.9.6.1.2)
collisions_i (3164)	distribution%distri_vec(:)%global_param%collisions_i(:) (dist_collisional_transfer_0d) (7.9.6.1.161)
power_th (3155)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_th (float) (7.9.6.1.2)
power_fast (3155)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_fast (float) (7.9.6.1.2)
torque_th (3155)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_th (float) (7.9.6.1.2)
torque_fast (3155)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_fast (float) (7.9.6.1.2)

collisions_z (3164)	distribution%distri_vec(:)%global_param%collisions_z(:) (dist_global_param_collisions_z) (7.9.6.1.171)
charge_state (3165)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:) (dist_collisional_transfer_0d) (7.9.6.1.161)
power_th (3155)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_th (float) (7.9.6.1.2)
power_fast (3155)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_fast (float) (7.9.6.1.2)
torque_th (3155)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_th (float) (7.9.6.1.2)
torque_fast (3155)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_fast (float) (7.9.6.1.2)
sources (3164)	distribution%distri_vec(:)%global_param%sources(:) (dist_sources_0d) (7.9.6.1.179)
source_ref (3173)	distribution%distri_vec(:)%global_param%sources(:)%source_ref (dist_sources_reference) (7.9.6.1.181)
type (3175)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%description (string) (7.9.6.1.4)
index_waveid (3175)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_waveid (vecint_type) (7.9.6.1.19)
index_srcid (3175)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_srcid (vecint_type) (7.9.6.1.19)
particle (3173)	distribution%distri_vec(:)%global_param%sources(:)%particle (float) (7.9.6.1.2)
momentum (3173)	distribution%distri_vec(:)%global_param%sources(:)%momentum (float) (7.9.6.1.2)
energy (3173)	distribution%distri_vec(:)%global_param%sources(:)%energy (float) (7.9.6.1.2)
profiles_1d (3179)	distribution%distri_vec(:)%profiles_1d (dist_profiles_1d) (7.9.6.1.176)
geometry (3170)	distribution%distri_vec(:)%profiles_1d%geometry (dist_geometry_1d) (7.9.6.1.168)
rho_tor (3162)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3162)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3162)	distribution%distri_vec(:)%profiles_1d%geometry%psi (vecflt_type) (7.9.6.1.18)
volume (3162)	distribution%distri_vec(:)%profiles_1d%geometry%volume (vecflt_type) (7.9.6.1.18)
area (3162)	distribution%distri_vec(:)%profiles_1d%geometry%area (vecflt_type) (7.9.6.1.18)
state (3170)	distribution%distri_vec(:)%profiles_1d%state (dist_state_1d) (7.9.6.1.183)
dens (3177)	distribution%distri_vec(:)%profiles_1d%state%dens (vecflt_type) (7.9.6.1.18)
dens_fast (3177)	distribution%distri_vec(:)%profiles_1d%state%dens_fast (vecflt_type) (7.9.6.1.18)
pres (3177)	distribution%distri_vec(:)%profiles_1d%state%pres (vecflt_type) (7.9.6.1.18)
pres_fast (3177)	distribution%distri_vec(:)%profiles_1d%state%pres_fast (vecflt_type) (7.9.6.1.18)
pres_fast_pa (3177)	distribution%distri_vec(:)%profiles_1d%state%pres_fast_pa (vecflt_type) (7.9.6.1.18)
momentm_fast (3177)	distribution%distri_vec(:)%profiles_1d%state%momentm_fast (vecflt_type) (7.9.6.1.18)
current (3177)	distribution%distri_vec(:)%profiles_1d%state%current (vecflt_type) (7.9.6.1.18)
current_fast (3177)	distribution%distri_vec(:)%profiles_1d%state%current_fast (vecflt_type) (7.9.6.1.18)
torque_jrxb (3177)	distribution%distri_vec(:)%profiles_1d%state%torque_jrxb (vecflt_type) (7.9.6.1.18)
collisions_e (3170)	distribution%distri_vec(:)%profiles_1d%collisions_e (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_i (3170)	distribution%distri_vec(:)%profiles_1d%collisions_i(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_z (3170)	distribution%distri_vec(:)%profiles_1d%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.6.1.177)
charge_state (3171)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.6.1.18)

torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.6.1.18)
sources (3170)	distribution%distri_vec(:)%profiles_1d%sources(:) (dist_sources_1d) (7.9.6.1.180)
source_ref (3174)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref (dist_sources_reference) (7.9.6.1.181)
type (3175)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%description (string) (7.9.6.1.4)
index_waveid (3175)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_waveid (vecint_type) (7.9.6.1.19)
index_srcid (3175)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_srcid (vecint_type) (7.9.6.1.19)
particle (3174)	distribution%distri_vec(:)%profiles_1d%sources(:)%particle (vecflt_type) (7.9.6.1.18)
momentum (3174)	distribution%distri_vec(:)%profiles_1d%sources(:)%momentum (vecflt_type) (7.9.6.1.18)
energy (3174)	distribution%distri_vec(:)%profiles_1d%sources(:)%energy (vecflt_type) (7.9.6.1.18)
trapped (3170)	distribution%distri_vec(:)%profiles_1d%trapped (dist_profile_values_1d) (7.9.6.1.173)
state (3167)	distribution%distri_vec(:)%profiles_1d%trapped%state (dist_state_1d) (7.9.6.1.183)
dens (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens (vecflt_type) (7.9.6.1.18)
dens_fast (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens_fast (vecflt_type) (7.9.6.1.18)
pres (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres (vecflt_type) (7.9.6.1.18)
pres_fast (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast (vecflt_type) (7.9.6.1.18)
pres_fast_pa (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast_pa (vecflt_type) (7.9.6.1.18)
momentm_fast (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%momentm_fast (vecflt_type) (7.9.6.1.18)
current (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%current (vecflt_type) (7.9.6.1.18)
current_fast (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%current_fast (vecflt_type) (7.9.6.1.18)
torque_jrxb (3177)	distribution%distri_vec(:)%profiles_1d%trapped%state%torque_jrxb (vecflt_type) (7.9.6.1.18)
collisions_e (3167)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_i (3167)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_z (3167)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.6.1.177)
charge_state (3171)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.6.1.18)
sources (3167)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:) (dist_sources_1d) (7.9.6.1.180)
source_ref (3174)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref (dist_sources_reference) (7.9.6.1.181)
type (3175)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%flag (integer) (7.9.6.1.3)

description (3248)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%description (string) (7.9.6.1.4)
index_waveid (3175)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_waveid (vecint_type) (7.9.6.1.19)
index_srcid (3175)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_srcid (vecint_type) (7.9.6.1.19)
particle (3174)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%particle (vecflt_type) (7.9.6.1.18)
momentum (3174)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%momentum (vecflt_type) (7.9.6.1.18)
energy (3174)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%energy (vecflt_type) (7.9.6.1.18)
co_passing (3170)	distribution%distri_vec(:)%profiles_1d%co_passing (dist_profile_values_1d) (7.9.6.1.173)
state (3167)	distribution%distri_vec(:)%profiles_1d%co_passing%state (dist_state_1d) (7.9.6.1.183)
dens (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens (vecflt_type) (7.9.6.1.18)
dens_fast (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens_fast (vecflt_type) (7.9.6.1.18)
pres (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres (vecflt_type) (7.9.6.1.18)
pres_fast (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast (vecflt_type) (7.9.6.1.18)
pres_fast_pa (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast_pa (vecflt_type) (7.9.6.1.18)
momentm_fast (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%momentm_fast (vecflt_type) (7.9.6.1.18)
current (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current (vecflt_type) (7.9.6.1.18)
current_fast (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current_fast (vecflt_type) (7.9.6.1.18)
torque_jrxb (3177)	distribution%distri_vec(:)%profiles_1d%co_passing%state%torque_jrxb (vecflt_type) (7.9.6.1.18)
collisions_e (3167)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_i (3167)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_z (3167)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.6.1.177)
charge_state (3171)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.6.1.18)
sources (3167)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:) (dist_sources_1d) (7.9.6.1.180)
source_ref (3174)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref (dist_sources_reference) (7.9.6.1.181)
type (3175)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%description (string) (7.9.6.1.4)
index_waveid (3175)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.6.1.19)
index_srcid (3175)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.6.1.19)

particle (3174)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%particle (vecflt_type) (7.9.6.1.18)
momentum (3174)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%momentum (vecflt_type) (7.9.6.1.18)
energy (3174)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%energy (vecflt_type) (7.9.6.1.18)
cntr_passing (3170)	distribution%distri_vec(:)%profiles_1d%cntr_passing (dist_profile_values_1d) (7.9.6.1.173)
state (3167)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state (dist_state_1d) (7.9.6.1.183)
dens (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens (vecflt_type) (7.9.6.1.18)
dens_fast (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens_fast (vecflt_type) (7.9.6.1.18)
pres (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres (vecflt_type) (7.9.6.1.18)
pres_fast (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast (vecflt_type) (7.9.6.1.18)
pres_fast_pa (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast_pa (vecflt_type) (7.9.6.1.18)
momentm_fast (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%momentm_fast (vecflt_type) (7.9.6.1.18)
current (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current (vecflt_type) (7.9.6.1.18)
current_fast (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current_fast (vecflt_type) (7.9.6.1.18)
torque_jrxb (3177)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%torque_jrxb (vecflt_type) (7.9.6.1.18)
collisions_e (3167)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_i (3167)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.6.1.18)
collisions_z (3167)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.6.1.177)
charge_state (3171)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.6.1.162)
power_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.6.1.18)
power_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.6.1.18)
torque_th (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.6.1.18)
torque_fast (3156)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.6.1.18)
sources (3167)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:) (dist_sources_1d) (7.9.6.1.180)
source_ref (3174)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref (dist_sources_reference) (7.9.6.1.181)
type (3175)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%description (string) (7.9.6.1.4)
index_waveid (3175)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.6.1.19)
index_srcid (3175)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.6.1.19)
particle (3174)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%particle (vecflt_type) (7.9.6.1.18)

momentum (3174)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%momentum (vecflt_type) (7.9.6.1.18)
energy (3174)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%energy (vecflt_type) (7.9.6.1.18)
profiles_2d (3179)	distribution%distri_vec(:)%profiles_2d (dist_profiles_2d) (7.9.6.1.178)
geometry (3172)	distribution%distri_vec(:)%profiles_2d%geometry (dist_geometry_2d) (7.9.6.1.169)
coord_type (3163)	distribution%distri_vec(:)%profiles_2d%geometry%coord_type (integer) (7.9.6.1.3)
r (3163)	distribution%distri_vec(:)%profiles_2d%geometry%r (matflt_type) (7.9.6.1.15)
z (3163)	distribution%distri_vec(:)%profiles_2d%geometry%z (matflt_type) (7.9.6.1.15)
rho_tor (3163)	distribution%distri_vec(:)%profiles_2d%geometry%rho_tor (matflt_type) (7.9.6.1.15)
psi (3163)	distribution%distri_vec(:)%profiles_2d%geometry%psi (matflt_type) (7.9.6.1.15)
theta_geom (3163)	distribution%distri_vec(:)%profiles_2d%geometry%theta_geom (matflt_type) (7.9.6.1.15)
theta_strt (3163)	distribution%distri_vec(:)%profiles_2d%geometry%theta_strt (matflt_type) (7.9.6.1.15)
state (3172)	distribution%distri_vec(:)%profiles_2d%state (dist_state_2d) (7.9.6.1.184)
dens (3178)	distribution%distri_vec(:)%profiles_2d%state%dens (matflt_type) (7.9.6.1.15)
dens_fast (3178)	distribution%distri_vec(:)%profiles_2d%state%dens_fast (matflt_type) (7.9.6.1.15)
pres (3178)	distribution%distri_vec(:)%profiles_2d%state%pres (matflt_type) (7.9.6.1.15)
pres_fast (3178)	distribution%distri_vec(:)%profiles_2d%state%pres_fast (matflt_type) (7.9.6.1.15)
pres_fast_pa (3178)	distribution%distri_vec(:)%profiles_2d%state%pres_fast_pa (matflt_type) (7.9.6.1.15)
momentm_fast (3178)	distribution%distri_vec(:)%profiles_2d%state%momentm_fast (matflt_type) (7.9.6.1.15)
current (3178)	distribution%distri_vec(:)%profiles_2d%state%current (matflt_type) (7.9.6.1.15)
current_fast (3178)	distribution%distri_vec(:)%profiles_2d%state%current_fast (matflt_type) (7.9.6.1.15)
torque_jrxb (3178)	distribution%distri_vec(:)%profiles_2d%state%torque_jrxb (matflt_type) (7.9.6.1.15)
collisions_e (3172)	distribution%distri_vec(:)%profiles_2d%collisions_e (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_fast (matflt_type) (7.9.6.1.15)
collisions_i (3172)	distribution%distri_vec(:)%profiles_2d%collisions_i(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_fast (matflt_type) (7.9.6.1.15)
collisions_z (3172)	distribution%distri_vec(:)%profiles_2d%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.6.1.175)
charge_state (3169)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.6.1.15)
trapped (3172)	distribution%distri_vec(:)%profiles_2d%trapped (dist_profile_values_2d) (7.9.6.1.174)
state (3168)	distribution%distri_vec(:)%profiles_2d%trapped%state (dist_state_2d) (7.9.6.1.184)
dens (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens (matflt_type) (7.9.6.1.15)
dens_fast (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens_fast (matflt_type) (7.9.6.1.15)
pres (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres (matflt_type) (7.9.6.1.15)
pres_fast (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast (matflt_type) (7.9.6.1.15)
pres_fast_pa (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast_pa (matflt_type) (7.9.6.1.15)
momentm_fast (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%momentm_fast (matflt_type) (7.9.6.1.15)
current (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%current (matflt_type) (7.9.6.1.15)
current_fast (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%current_fast (matflt_type) (7.9.6.1.15)
torque_jrxb (3178)	distribution%distri_vec(:)%profiles_2d%trapped%state%torque_jrxb (matflt_type) (7.9.6.1.15)
collisions_e (3168)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_th (matflt_type) (7.9.6.1.15)

torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_fast (matflt_type) (7.9.6.1.15)
collisions_i (3168)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_fast (matflt_type) (7.9.6.1.15)
collisions_z (3168)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.6.1.175)
charge_state (3169)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.6.1.15)
co_passing (3172)	distribution%distri_vec(:)%profiles_2d%co_passing (dist_profile_values_2d) (7.9.6.1.174)
state (3168)	distribution%distri_vec(:)%profiles_2d%co_passing%state (dist_state_2d) (7.9.6.1.184)
dens (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens (matflt_type) (7.9.6.1.15)
dens_fast (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens_fast (matflt_type) (7.9.6.1.15)
pres (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres (matflt_type) (7.9.6.1.15)
pres_fast (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast (matflt_type) (7.9.6.1.15)
pres_fast_pa (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast_pa (matflt_type) (7.9.6.1.15)
momentm_fast (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%momentm_fast (matflt_type) (7.9.6.1.15)
current (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current (matflt_type) (7.9.6.1.15)
current_fast (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current_fast (matflt_type) (7.9.6.1.15)
torque_jrxb (3178)	distribution%distri_vec(:)%profiles_2d%co_passing%state%torque_jrxb (matflt_type) (7.9.6.1.15)
collisions_e (3168)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_fast (matflt_type) (7.9.6.1.15)
collisions_i (3168)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.6.1.15)
collisions_z (3168)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.6.1.175)
charge_state (3169)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.6.1.15)
cntr_passing (3172)	distribution%distri_vec(:)%profiles_2d%cntr_passing (dist_profile_values_2d) (7.9.6.1.174)

state (3168)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state (dist_state_2d) (7.9.6.1.184)
dens (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens (matflt_type) (7.9.6.1.15)
dens_fast (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens_fast (matflt_type) (7.9.6.1.15)
pres (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres (matflt_type) (7.9.6.1.15)
pres_fast (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast (matflt_type) (7.9.6.1.15)
pres_fast_pa (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast_pa (matflt_type) (7.9.6.1.15)
momentm_fast (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%momentm_fast (matflt_type) (7.9.6.1.15)
current (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current (matflt_type) (7.9.6.1.15)
current_fast (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current_fast (matflt_type) (7.9.6.1.15)
torque_jrxb (3178)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%torque_jrxb (matflt_type) (7.9.6.1.15)
collisions_e (3168)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_fast (matflt_type) (7.9.6.1.15)
collisions_i (3168)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.6.1.15)
collisions_z (3168)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.6.1.175)
charge_state (3169)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.6.1.163)
power_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.6.1.15)
power_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.6.1.15)
torque_th (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.6.1.15)
torque_fast (3157)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.6.1.15)
dist_func (3179)	distribution%distri_vec(:)%dist_func (dist_func) (7.9.6.1.166)
is_delta_f (3160)	distribution%distri_vec(:)%dist_func%is_delta_f (integer) (7.9.6.1.3)
markers (3160)	distribution%distri_vec(:)%dist_func%markers (weighted_markers) (7.9.6.1.523)
variable_ids (3517)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:) (identifier) (7.9.6.1.254)
id (3248)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%id (string) (7.9.6.1.4)
flag (3248)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%flag (integer) (7.9.6.1.3)
description (3248)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%description (string) (7.9.6.1.4)
coord (3517)	distribution%distri_vec(:)%dist_func%markers%coord (matflt_type) (7.9.6.1.15)
weight (3517)	distribution%distri_vec(:)%dist_func%markers%weight (vecflt_type) (7.9.6.1.18)
f_expan_topo (3160)	distribution%distri_vec(:)%dist_func%f_expan_topo(:) (dist_ff) (7.9.6.1.165)
grid_info (3159)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info (dist_grid_info) (7.9.6.1.172)
grid_type (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_type (integer) (7.9.6.1.3)
ngriddim (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%ngriddim (integer) (7.9.6.1.3)
grid_coord (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_coord (vecint_type) (7.9.6.1.19)
thin_orbits (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%thin_orbits (integer) (7.9.6.1.3)
topology (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%topology (string) (7.9.6.1.4)
omnigen_surf (3166)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:) (omnigen_surf) (7.9.6.1.321)

rz (3315)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz (rz1D) (7.9.6.1.377)
r (3371)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%r (vecflt_type) (7.9.6.1.18)
z (3371)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%z (vecflt_type) (7.9.6.1.18)
s (3315)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%s (vecflt_type) (7.9.6.1.18)
topo_regions (3159)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:) (topo_regions) (7.9.6.1.476)
ind_omnigen (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%ind_omnigen (integer) (7.9.6.1.3)
dim1 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim1 (array6dflt_type) (7.9.6.1.11)
dim2 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim2 (array6dflt_type) (7.9.6.1.11)
dim3 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim3 (array6dflt_type) (7.9.6.1.11)
dim4 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim4 (array6dflt_type) (7.9.6.1.11)
dim5 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim5 (array6dflt_type) (7.9.6.1.11)
dim6 (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim6 (array6dflt_type) (7.9.6.1.11)
jacobian (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%jacobian (array6dflt_type) (7.9.6.1.11)
distfunc (3470)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%distfunc (array6dflt_type) (7.9.6.1.11)
f_expansion (3160)	distribution%distri_vec(:)%dist_func%f_expansion(:) (f_expansion) (7.9.6.1.218)
grid (3212)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid (complexgrid) (7.9.6.1.103)
uid (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%uid (integer) (7.9.6.1.3)
id (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%id (string) (7.9.6.1.4)
spaces (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:) (complexgrid_space) (7.9.6.1.112)
geotype (3106)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotype (vecint_type) (7.9.6.1.19)
geotypeid (3106)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.6.1.20)
coordtype (3106)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%coordtype (matint_type) (7.9.6.1.16)
objects (3106)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:) (objects) (7.9.6.1.318)
boundary (3312)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.6.1.16)
neighbour (3312)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.6.1.8)
geo (3312)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.6.1.9)
measure (3312)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.6.1.15)
xpoints (3106)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.6.1.19)
subgrids (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.6.1.113)
id (3107)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%id (string) (7.9.6.1.4)
list (3107)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.6.1.107)
cls (3101)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.6.1.19)
indset (3101)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.6.1.105)
range (3099)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.6.1.19)
ind (3099)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.6.1.19)
ind (3101)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.6.1.16)
metric (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric (complexgrid_metric) (7.9.6.1.106)
measure (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%griduid (integer) (7.9.6.1.3)

subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
g11 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.6.1.7)
g12 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.6.1.7)
g13 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.6.1.7)
g22 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.6.1.7)
g23 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.6.1.7)
g33 (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%subgrid (integer) (7.9.6.1.3)

scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.6.1.7)
jacobian (3100)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.6.1.7)
geo (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:) (complexgrid_geo_global) (7.9.6.1.104)
geotype (3098)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotype (integer) (7.9.6.1.3)
geotypeid (3098)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotypeid (string) (7.9.6.1.4)
coordtype (3098)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%coordtype (vecint_type) (7.9.6.1.19)
geo_matrix (3098)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.6.1.7)
measure (3098)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
bases (3097)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%griduid (integer) (7.9.6.1.3)
label (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%label (string) (7.9.6.1.4)
comp (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%basis (integer) (7.9.6.1.3)

values (3212)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%matrix (array3dflt_type) (7.9.6.1.7)
parameters (3212)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters (dist_distrivec_distfunc_fexp_param) (7.9.6.1.164)
equatorial (3158)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial (equatorial_plane) (7.9.6.1.212)
r (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%r (vecflt_type) (7.9.6.1.18)
z (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%z (vecflt_type) (7.9.6.1.18)
s (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%s (vecflt_type) (7.9.6.1.18)
rho_tor (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%rho_tor (vecflt_type) (7.9.6.1.18)
psi (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%psi (vecflt_type) (7.9.6.1.18)
b_mod (3206)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%b_mod (vecflt_type) (7.9.6.1.18)
temperature (3158)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%temperature (vecflt_type) (7.9.6.1.18)
codeparam (3179)	distribution%distri_vec(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	distribution%distri_vec(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	distribution%distri_vec(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	distribution%distri_vec(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	distribution%distri_vec(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	distribution%distri_vec(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3030)	distribution%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	distribution%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	distribution%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	distribution%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	distribution%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	distribution%codeparam%output_flag (integer) (7.9.6.1.3)
time (3030)	distribution%time (float) (7.9.6.1.2)

7.9.6.2.15 distsource

datainfo (3031)	distsource%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	distsource%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	distsource%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	distsource%datainfo%source (string) (7.9.6.1.4)
comment (3148)	distsource%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	distsource%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	distsource%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	distsource%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	distsource%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	distsource%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	distsource%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	distsource%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	distsource%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	distsource%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	distsource%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	distsource%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	distsource%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	distsource%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	distsource%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3031)	distsource%composition (composition) (7.9.6.1.116)
amn (3110)	distsource%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	distsource%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	distsource%composition%zion (vecflt_type) (7.9.6.1.18)

imp_flag (3110)	distsource%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	distsource%composition%label (vecstring_type) (7.9.6.1.20)
compositions (3031)	distsource%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	distsource%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	distsource%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	distsource%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	distsource%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	distsource%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	distsource%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	distsource%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	distsource%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	distsource%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	distsource%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	distsource%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	distsource%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	distsource%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	distsource%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	distsource%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	distsource%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	distsource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	distsource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	distsource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	distsource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	distsource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	distsource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	distsource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	distsource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	distsource%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	distsource%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	distsource%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	distsource%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	distsource%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	distsource%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	distsource%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	distsource%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	distsource%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	distsource%compositions%signature%description (string) (7.9.6.1.4)
source (3031)	distsource%source(:) (distsource_source) (7.9.6.1.190)
source_id (3184)	distsource%source(:)%source_id(:) (enum_instance) (7.9.6.1.207)
type (3201)	distsource%source(:)%source_id(:)%type (identifier) (7.9.6.1.254)
id (3248)	distsource%source(:)%source_id(:)%type%id (string) (7.9.6.1.4)
flag (3248)	distsource%source(:)%source_id(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	distsource%source(:)%source_id(:)%type%description (string) (7.9.6.1.4)
name (3201)	distsource%source(:)%source_id(:)%name (string) (7.9.6.1.4)
index (3201)	distsource%source(:)%source_id(:)%index (integer) (7.9.6.1.3)
species (3184)	distsource%source(:)%species (species_reference) (7.9.6.1.429)
type (3423)	distsource%source(:)%species%type (identifier) (7.9.6.1.254)
id (3248)	distsource%source(:)%species%type%id (string) (7.9.6.1.4)
flag (3248)	distsource%source(:)%species%type%flag (integer) (7.9.6.1.3)
description (3248)	distsource%source(:)%species%type%description (string) (7.9.6.1.4)
index (3423)	distsource%source(:)%species%index (integer) (7.9.6.1.3)
gyro_type (3184)	distsource%source(:)%gyro_type (integer) (7.9.6.1.3)
global_param (3184)	distsource%source(:)%global_param (distsource_global_param) (7.9.6.1.186)
src_pow (3180)	distsource%source(:)%global_param%src_pow (exp0D) (7.9.6.1.215)
value (3209)	distsource%source(:)%global_param%src_pow%value (float) (7.9.6.1.2)
abserror (3209)	distsource%source(:)%global_param%src_pow%abserror (float) (7.9.6.1.2)
relerror (3209)	distsource%source(:)%global_param%src_pow%relerror (float) (7.9.6.1.2)
src_rate (3180)	distsource%source(:)%global_param%src_rate (exp0D) (7.9.6.1.215)
value (3209)	distsource%source(:)%global_param%src_rate%value (float) (7.9.6.1.2)
abserror (3209)	distsource%source(:)%global_param%src_rate%abserror (float) (7.9.6.1.2)
relerror (3209)	distsource%source(:)%global_param%src_rate%relerror (float) (7.9.6.1.2)

mag_axis (3180)	distsource%source(:)%global_param%mag_axis (rz0D) (7.9.6.1.376)
r (3370)	distsource%source(:)%global_param%mag_axis%r (float) (7.9.6.1.2)
z (3370)	distsource%source(:)%global_param%mag_axis%z (float) (7.9.6.1.2)
toroid_field (3180)	distsource%source(:)%global_param%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	distsource%source(:)%global_param%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	distsource%source(:)%global_param%toroid_field%b0 (float) (7.9.6.1.2)
profiles_1d (3184)	distsource%source(:)%profiles_1d (distsource_profiles_1d) (7.9.6.1.188)
rho_tor (3182)	distsource%source(:)%profiles_1d%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3182)	distsource%source(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3182)	distsource%source(:)%profiles_1d%psi (vecflt_type) (7.9.6.1.18)
volume (3182)	distsource%source(:)%profiles_1d%volume (vecflt_type) (7.9.6.1.18)
area (3182)	distsource%source(:)%profiles_1d%area (vecflt_type) (7.9.6.1.18)
pow_den (3182)	distsource%source(:)%profiles_1d%pow_den (exp1D) (7.9.6.1.216)
value (3210)	distsource%source(:)%profiles_1d%pow_den%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	distsource%source(:)%profiles_1d%pow_den%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	distsource%source(:)%profiles_1d%pow_den%relerror (vecflt_type) (7.9.6.1.18)
trq_den (3182)	distsource%source(:)%profiles_1d%trq_den (exp1D) (7.9.6.1.216)
value (3210)	distsource%source(:)%profiles_1d%trq_den%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	distsource%source(:)%profiles_1d%trq_den%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	distsource%source(:)%profiles_1d%trq_den%relerror (vecflt_type) (7.9.6.1.18)
src_rate (3182)	distsource%source(:)%profiles_1d%src_rate (exp1D) (7.9.6.1.216)
value (3210)	distsource%source(:)%profiles_1d%src_rate%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	distsource%source(:)%profiles_1d%src_rate%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	distsource%source(:)%profiles_1d%src_rate%relerror (vecflt_type) (7.9.6.1.18)
profiles_2d (3184)	distsource%source(:)%profiles_2d (distsource_profiles_2d) (7.9.6.1.189)
grid_coord (3183)	distsource%source(:)%profiles_2d%grid_coord (vecint_type) (7.9.6.1.19)
dim1 (3183)	distsource%source(:)%profiles_2d%dim1 (matflt_type) (7.9.6.1.15)
dim2 (3183)	distsource%source(:)%profiles_2d%dim2 (matflt_type) (7.9.6.1.15)
g11 (3183)	distsource%source(:)%profiles_2d%g11 (matflt_type) (7.9.6.1.15)
g12 (3183)	distsource%source(:)%profiles_2d%g12 (matflt_type) (7.9.6.1.15)
g21 (3183)	distsource%source(:)%profiles_2d%g21 (matflt_type) (7.9.6.1.15)
g22 (3183)	distsource%source(:)%profiles_2d%g22 (matflt_type) (7.9.6.1.15)
pow_den (3183)	distsource%source(:)%profiles_2d%pow_den (exp2D) (7.9.6.1.217)
value (3211)	distsource%source(:)%profiles_2d%pow_den%value (matflt_type) (7.9.6.1.15)
abserror (3211)	distsource%source(:)%profiles_2d%pow_den%abserror (matflt_type) (7.9.6.1.15)
relerror (3211)	distsource%source(:)%profiles_2d%pow_den%relerror (matflt_type) (7.9.6.1.15)
src_rate (3183)	distsource%source(:)%profiles_2d%src_rate (exp2D) (7.9.6.1.217)
value (3211)	distsource%source(:)%profiles_2d%src_rate%value (matflt_type) (7.9.6.1.15)
abserror (3211)	distsource%source(:)%profiles_2d%src_rate%abserror (matflt_type) (7.9.6.1.15)
relerror (3211)	distsource%source(:)%profiles_2d%src_rate%relerror (matflt_type) (7.9.6.1.15)
line_srcprof (3184)	distsource%source(:)%line_srcprof(:) (distsource_line_src_prof) (7.9.6.1.187)
rho_tor (3181)	distsource%source(:)%line_srcprof(:)%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3181)	distsource%source(:)%line_srcprof(:)%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3181)	distsource%source(:)%line_srcprof(:)%psi (vecflt_type) (7.9.6.1.18)
R (3181)	distsource%source(:)%line_srcprof(:)%R (vecflt_type) (7.9.6.1.18)
Z (3181)	distsource%source(:)%line_srcprof(:)%Z (vecflt_type) (7.9.6.1.18)
theta (3181)	distsource%source(:)%line_srcprof(:)%theta (vecflt_type) (7.9.6.1.18)
theta_id (3181)	distsource%source(:)%line_srcprof(:)%theta_id (vecflt_type) (7.9.6.1.18)
th2th_pol (3181)	distsource%source(:)%line_srcprof(:)%th2th_pol (matflt_type) (7.9.6.1.15)
pitch (3181)	distsource%source(:)%line_srcprof(:)%pitch (vecflt_type) (7.9.6.1.18)
energy (3181)	distsource%source(:)%line_srcprof(:)%energy (vecflt_type) (7.9.6.1.18)
ang_momentum (3181)	distsource%source(:)%line_srcprof(:)%ang_momentum (vecflt_type) (7.9.6.1.18)
src_rate (3181)	distsource%source(:)%line_srcprof(:)%src_rate (vecflt_type) (7.9.6.1.18)
source_rate (3184)	distsource%source(:)%source_rate (source_rate) (7.9.6.1.423)
grid (3417)	distsource%source(:)%source_rate%grid (complexgrid) (7.9.6.1.103)
uid (3097)	distsource%source(:)%source_rate%grid%uid (integer) (7.9.6.1.3)
id (3097)	distsource%source(:)%source_rate%grid%id (string) (7.9.6.1.4)
spaces (3097)	distsource%source(:)%source_rate%grid%spaces(:) (complexgrid_space) (7.9.6.1.112)
geotype (3106)	distsource%source(:)%source_rate%grid%spaces(:)%geotype (vecint_type) (7.9.6.1.19)
geotypeid (3106)	distsource%source(:)%source_rate%grid%spaces(:)%geotypeid (vecstring_type) (7.9.6.1.20)
coordtype (3106)	distsource%source(:)%source_rate%grid%spaces(:)%coordtype (matint_type) (7.9.6.1.16)

objects (3106)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:) (objects) (7.9.6.1.318)
boundary (3312)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.6.1.16)
neighbour (3312)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.6.1.8)
geo (3312)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.6.1.9)
measure (3312)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.6.1.15)
xpoints (3106)	distsource%source(:)%source_rate%grid%spaces(:)%xpoints (vecint_type) (7.9.6.1.19)
subgrids (3097)	distsource%source(:)%source_rate%grid%subgrids(:) (complexgrid_subgrid) (7.9.6.1.113)
id (3107)	distsource%source(:)%source_rate%grid%subgrids(:)%id (string) (7.9.6.1.4)
list (3107)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.6.1.107)
cls (3101)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.6.1.19)
indset (3101)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.6.1.105)
range (3099)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.6.1.19)
ind (3099)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.6.1.19)
ind (3101)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.6.1.16)
metric (3097)	distsource%source(:)%source_rate%grid%metric (complexgrid_metric) (7.9.6.1.106)
measure (3100)	distsource%source(:)%source_rate%grid%metric%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
g11 (3100)	distsource%source(:)%source_rate%grid%metric%g11(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g11(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g11(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g11(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%g11(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.6.1.7)
g12 (3100)	distsource%source(:)%source_rate%grid%metric%g12(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g12(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g12(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g12(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%g12(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.6.1.7)
g13 (3100)	distsource%source(:)%source_rate%grid%metric%g13(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g13(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g13(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g13(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%g13(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.6.1.7)
g22 (3100)	distsource%source(:)%source_rate%grid%metric%g22(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g22(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g22(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g22(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%g22(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.6.1.7)
g23 (3100)	distsource%source(:)%source_rate%grid%metric%g23(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g23(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g23(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g23(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%g23(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.6.1.7)
g33 (3100)	distsource%source(:)%source_rate%grid%metric%g33(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%g33(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%g33(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%g33(:)%scalar (vecflt_type) (7.9.6.1.18)

vector (3102)	distsource%source(:)%source_rate%grid%metric%g33(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.6.1.7)
jacobian (3100)	distsource%source(:)%source_rate%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.6.1.7)
geo (3097)	distsource%source(:)%source_rate%grid%geo(:) (complexgrid_geo_global) (7.9.6.1.104)
geotype (3098)	distsource%source(:)%source_rate%grid%geo(:)%geotype (integer) (7.9.6.1.3)
geotypeid (3098)	distsource%source(:)%source_rate%grid%geo(:)%geotypeid (string) (7.9.6.1.4)
coordtype (3098)	distsource%source(:)%source_rate%grid%geo(:)%coordtype (vecint_type) (7.9.6.1.19)
geo_matrix (3098)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.6.1.7)
measure (3098)	distsource%source(:)%source_rate%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
bases (3097)	distsource%source(:)%source_rate%grid%bases(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	distsource%source(:)%source_rate%grid%bases(:)%griduid (integer) (7.9.6.1.3)
label (3108)	distsource%source(:)%source_rate%grid%bases(:)%label (string) (7.9.6.1.4)
comp (3108)	distsource%source(:)%source_rate%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	distsource%source(:)%source_rate%grid%bases(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	distsource%source(:)%source_rate%grid%bases(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	distsource%source(:)%source_rate%grid%bases(:)%basis (integer) (7.9.6.1.3)
value (3417)	distsource%source(:)%source_rate%value (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	distsource%source(:)%source_rate%value%griduid (integer) (7.9.6.1.3)
subgrid (3102)	distsource%source(:)%source_rate%value%subgrid (integer) (7.9.6.1.3)
scalar (3102)	distsource%source(:)%source_rate%value%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	distsource%source(:)%source_rate%value%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	distsource%source(:)%source_rate%value%matrix (array3dflt_type) (7.9.6.1.7)
discrete (3417)	distsource%source(:)%source_rate%discrete (vecint_type) (7.9.6.1.19)
parameters (3417)	distsource%source(:)%source_rate%parameters (parameters) (7.9.6.1.329)
equatorial (3323)	distsource%source(:)%source_rate%parameters%equatorial (equatorial_plane) (7.9.6.1.212)
r (3206)	distsource%source(:)%source_rate%parameters%equatorial%r (vecflt_type) (7.9.6.1.18)
z (3206)	distsource%source(:)%source_rate%parameters%equatorial%z (vecflt_type) (7.9.6.1.18)
s (3206)	distsource%source(:)%source_rate%parameters%equatorial%s (vecflt_type) (7.9.6.1.18)
rho_tor (3206)	distsource%source(:)%source_rate%parameters%equatorial%rho_tor (vecflt_type) (7.9.6.1.18)
psi (3206)	distsource%source(:)%source_rate%parameters%equatorial%psi (vecflt_type) (7.9.6.1.18)
b_mod (3206)	distsource%source(:)%source_rate%parameters%equatorial%b_mod (vecflt_type) (7.9.6.1.18)
markers (3184)	distsource%source(:)%markers (weighted_markers) (7.9.6.1.523)
variable_ids (3517)	distsource%source(:)%markers%variable_ids(:) (identifier) (7.9.6.1.254)
id (3248)	distsource%source(:)%markers%variable_ids(:)%id (string) (7.9.6.1.4)
flag (3248)	distsource%source(:)%markers%variable_ids(:)%flag (integer) (7.9.6.1.3)

description (3248)	distsource%source(:)%markers%variable_ids(:)%description (string) (7.9.6.1.4)
coord (3517)	distsource%source(:)%markers%coord (matflt_type) (7.9.6.1.15)
weight (3517)	distsource%source(:)%markers%weight (vecflt_type) (7.9.6.1.18)
codeparam (3184)	distsource%source(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	distsource%source(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	distsource%source(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	distsource%source(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	distsource%source(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	distsource%source(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3031)	distsource%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	distsource%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	distsource%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	distsource%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	distsource%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	distsource%codeparam%output_flag (integer) (7.9.6.1.3)
time (3031)	distsource%time (float) (7.9.6.1.2)

7.9.6.2.16 ecediag

datainfo (3032)	ecediag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	ecediag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	ecediag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	ecediag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	ecediag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	ecediag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	ecediag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	ecediag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	ecediag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	ecediag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	ecediag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	ecediag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	ecediag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	ecediag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	ecediag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	ecediag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	ecediag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	ecediag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	ecediag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3032)	ecediag%setup (ecesetup) (7.9.6.1.194)
frequency (3188)	ecediag%setup%frequency (vecflt_type) (7.9.6.1.18)
los (3188)	ecediag%setup%los (setup_line_exp) (7.9.6.1.415)
pivot_point (3409)	ecediag%setup%los%pivot_point (rzphi1Dexperimental) (7.9.6.1.385)
r (3379)	ecediag%setup%los%pivot_point%r (vecflt_type) (7.9.6.1.18)
z (3379)	ecediag%setup%los%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3379)	ecediag%setup%los%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang1 (3409)	ecediag%setup%los%horchordang1 (vecflt_type) (7.9.6.1.18)
verchordang1 (3409)	ecediag%setup%los%verchordang1 (vecflt_type) (7.9.6.1.18)
width (3409)	ecediag%setup%los%width (vecflt_type) (7.9.6.1.18)
second_point (3409)	ecediag%setup%los%second_point (rzphi1Dexperimental) (7.9.6.1.385)
r (3379)	ecediag%setup%los%second_point%r (vecflt_type) (7.9.6.1.18)
z (3379)	ecediag%setup%los%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3379)	ecediag%setup%los%second_point%phi (vecflt_type) (7.9.6.1.18)
horchordang2 (3409)	ecediag%setup%los%horchordang2 (vecflt_type) (7.9.6.1.18)
verchordang2 (3409)	ecediag%setup%los%verchordang2 (vecflt_type) (7.9.6.1.18)
third_point (3409)	ecediag%setup%los%third_point (rzphi1Dexperimental) (7.9.6.1.385)
r (3379)	ecediag%setup%los%third_point%r (vecflt_type) (7.9.6.1.18)
z (3379)	ecediag%setup%los%third_point%z (vecflt_type) (7.9.6.1.18)
phi (3379)	ecediag%setup%los%third_point%phi (vecflt_type) (7.9.6.1.18)
nchordpoints (3409)	ecediag%setup%los%nchordpoints (integer) (7.9.6.1.3)
measure (3032)	ecediag%measure (ecemeasure) (7.9.6.1.193)
harmonic (3187)	ecediag%measure%harmonic (integer) (7.9.6.1.3)

position (3187)	ecediag%measure%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	ecediag%measure%position%r (exp1D) (7.9.6.1.216)
value (3210)	ecediag%measure%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ecediag%measure%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	ecediag%measure%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	ecediag%measure%position%z (exp1D) (7.9.6.1.216)
value (3210)	ecediag%measure%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ecediag%measure%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	ecediag%measure%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	ecediag%measure%position%phi (exp1D) (7.9.6.1.216)
value (3210)	ecediag%measure%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ecediag%measure%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	ecediag%measure%position%phi%relerror (vecflt_type) (7.9.6.1.18)
te (3187)	ecediag%measure%te (exp1D) (7.9.6.1.216)
value (3210)	ecediag%measure%te%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ecediag%measure%te%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	ecediag%measure%te%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3032)	ecediag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	ecediag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	ecediag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	ecediag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	ecediag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	ecediag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3032)	ecediag%time (float) (7.9.6.1.2)

7.9.6.2.17 edge

datainfo (3033)	edge%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	edge%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	edge%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	edge%datainfo%source (string) (7.9.6.1.4)
comment (3148)	edge%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	edge%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	edge%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	edge%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	edge%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	edge%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	edge%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	edge%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	edge%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	edge%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	edge%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	edge%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	edge%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	edge%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	edge%datainfo%putinfo%rights (string) (7.9.6.1.4)
grid (3033)	edge%grid (complexgrid) (7.9.6.1.103)
uid (3097)	edge%grid%uid (integer) (7.9.6.1.3)
id (3097)	edge%grid%id (string) (7.9.6.1.4)
spaces (3097)	edge%grid%spaces(:) (complexgrid_space) (7.9.6.1.112)
geotype (3106)	edge%grid%spaces(:)%geotype (vecint_type) (7.9.6.1.19)
geotypeid (3106)	edge%grid%spaces(:)%geotypeid (vecstring_type) (7.9.6.1.20)
coordtype (3106)	edge%grid%spaces(:)%coordtype (matint_type) (7.9.6.1.16)
objects (3106)	edge%grid%spaces(:)%objects(:) (objects) (7.9.6.1.318)
boundary (3312)	edge%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.6.1.16)
neighbour (3312)	edge%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.6.1.8)
geo (3312)	edge%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.6.1.9)
measure (3312)	edge%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.6.1.15)
xpoints (3106)	edge%grid%spaces(:)%xpoints (vecint_type) (7.9.6.1.19)
subgrids (3097)	edge%grid%subgrids(:) (complexgrid_subgrid) (7.9.6.1.113)
id (3107)	edge%grid%subgrids(:)%id (string) (7.9.6.1.4)

list (3107)	edge%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.6.1.107)
cls (3101)	edge%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.6.1.19)
indset (3101)	edge%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.6.1.105)
range (3099)	edge%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.6.1.19)
ind (3099)	edge%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.6.1.19)
ind (3101)	edge%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.6.1.16)
metric (3097)	edge%grid%metric (complexgrid_metric) (7.9.6.1.106)
measure (3100)	edge%grid%metric%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
g11 (3100)	edge%grid%metric%g11(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g11(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g11(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g11(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g11(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.6.1.7)
g12 (3100)	edge%grid%metric%g12(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g12(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g12(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g12(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g12(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.6.1.7)
g13 (3100)	edge%grid%metric%g13(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g13(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g13(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g13(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g13(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.6.1.7)
g22 (3100)	edge%grid%metric%g22(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g22(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g22(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g22(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g22(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.6.1.7)
g23 (3100)	edge%grid%metric%g23(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g23(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g23(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g23(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g23(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.6.1.7)
g33 (3100)	edge%grid%metric%g33(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%g33(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%g33(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%g33(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%g33(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.6.1.7)
jacobian (3100)	edge%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%metric%jacobian(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%metric%jacobian(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%metric%jacobian(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.6.1.7)
geo (3097)	edge%grid%geo(:) (complexgrid_geo_global) (7.9.6.1.104)
geotype (3098)	edge%grid%geo(:)%geotype (integer) (7.9.6.1.3)
geotypeid (3098)	edge%grid%geo(:)%geotypeid (string) (7.9.6.1.4)
coordtype (3098)	edge%grid%geo(:)%coordtype (vecint_type) (7.9.6.1.19)
geo_matrix (3098)	edge%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.6.1.3)

subgrid (3102)	edge%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.6.1.7)
measure (3098)	edge%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%geo(:)%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%geo(:)%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
bases (3097)	edge%grid%bases(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%grid%bases(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%grid%bases(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%grid%bases(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%grid%bases(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%grid%bases(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%grid%bases(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%grid%bases(:)%basis (integer) (7.9.6.1.3)
species (3033)	edge%species(:) (species_desc) (7.9.6.1.428)
label (3422)	edge%species(:)%label (string) (7.9.6.1.4)
amn (3422)	edge%species(:)%amn (float) (7.9.6.1.2)
zn (3422)	edge%species(:)%zn (float) (7.9.6.1.2)
zmin (3422)	edge%species(:)%zmin (float) (7.9.6.1.2)
zmax (3422)	edge%species(:)%zmax (float) (7.9.6.1.2)
compositions (3033)	edge%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	edge%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	edge%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	edge%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	edge%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	edge%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	edge%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	edge%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	edge%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	edge%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	edge%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	edge%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	edge%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	edge%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	edge%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	edge%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	edge%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	edge%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	edge%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	edge%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	edge%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	edge%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	edge%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	edge%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	edge%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	edge%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	edge%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	edge%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	edge%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	edge%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	edge%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	edge%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	edge%compositions%signature%id (string) (7.9.6.1.4)

flag (3248)	edge%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	edge%compositions%signature%description (string) (7.9.6.1.4)
fluid (3033)	edge%fluid (edge_fluid) (7.9.6.1.195)
ne (3189)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.6.1.197)
value (3191)	edge%fluid%ne%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3191)	edge%fluid%ne%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3191)	edge%fluid%ne%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ne%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ne%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ne%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ne%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ne%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ne%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3191)	edge%fluid%ne%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ne%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ne%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ne%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ne%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ne%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ne%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3191)	edge%fluid%ne%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%ne%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ne%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ne%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ne%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ne%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%ne%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ne%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ne%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ne%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ne%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)

source (3191)	edge%fluid%ne%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ne%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ne%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ne%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ne%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ne%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
ni (3189)	edge%fluid%ni(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%ni(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%ni(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%ni(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ni(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ni(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ni(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ni(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ni(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ni(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%ni(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ni(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ni(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ni(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ni(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ni(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ni(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%ni(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%ni(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ni(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ni(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ni(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%ni(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ni(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)

matrix (3102)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ni(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ni(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%ni(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ni(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ni(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ni(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ni(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ni(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
ve (3189)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.6.1.200)
griduid (3194)	edge%fluid%ve%griduid (integer) (7.9.6.1.3)
basis (3194)	edge%fluid%ve%basis (integer) (7.9.6.1.3)
comps (3194)	edge%fluid%ve%comps(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%ve%comps(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%ve%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%ve%comps(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ve%comps(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ve%comps(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ve%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ve%comps(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ve%comps(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ve%comps(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%ve%comps(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ve%comps(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ve%comps(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ve%comps(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ve%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ve%comps(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%ve%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%ve%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%ve%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)

label (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%ve%comps(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ve%comps(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ve%comps(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ve%comps(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ve%comps(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ve%comps(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3194)	edge%fluid%ve%align (vecint_type) (7.9.6.1.19)
alignid (3194)	edge%fluid%ve%alignid (vecstring_type) (7.9.6.1.20)
vi (3189)	edge%fluid%vi(:) (edge_fluid_vector) (7.9.6.1.199)
griduid (3193)	edge%fluid%vi(:)%griduid (integer) (7.9.6.1.3)
basis (3193)	edge%fluid%vi(:)%basis (integer) (7.9.6.1.3)
align (3193)	edge%fluid%vi(:)%align (vecint_type) (7.9.6.1.19)
alignid (3193)	edge%fluid%vi(:)%alignid (vecstring_type) (7.9.6.1.20)
comps (3193)	edge%fluid%vi(:)%comps(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%vi(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%vi(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%vi(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%vi(:)%comps(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%vi(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%vi(:)%comps(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%vi(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)

label (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%vi(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%vi(:)%comps(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%vi(:)%comps(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%vi(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%vi(:)%comps(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%vi(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
te (3189)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.6.1.197)
value (3191)	edge%fluid%te%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3191)	edge%fluid%te%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3191)	edge%fluid%te%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%te%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%te%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%te%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%te%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%te%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%te%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3191)	edge%fluid%te%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%te%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%te%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%te%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%te%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%te%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)

basis (3108)	edge%fluid%te%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3191)	edge%fluid%te%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%te%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%te%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%te%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%te%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%te%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%te%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%te%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%te%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%te%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%te%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3191)	edge%fluid%te%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
ti (3189)	edge%fluid%ti(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%ti(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%ti(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%ti(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ti(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ti(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ti(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ti(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ti(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ti(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%ti(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ti(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ti(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ti(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)

matrix (3102)	edge%fluid%ti(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ti(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ti(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ti(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%ti(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%ti(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ti(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ti(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ti(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%ti(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ti(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ti(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ti(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%ti(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
te_aniso (3189)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.6.1.200)
griduid (3194)	edge%fluid%te_aniso%griduid (integer) (7.9.6.1.3)
basis (3194)	edge%fluid%te_aniso%basis (integer) (7.9.6.1.3)
comps (3194)	edge%fluid%te_aniso%comps(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%te_aniso%comps(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%te_aniso%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%te_aniso%comps(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%te_aniso%comps(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%te_aniso%comps(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)

label (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%te_aniso%comps(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%te_aniso%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%te_aniso%comps(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%te_aniso%comps(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%te_aniso%comps(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%te_aniso%comps(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%te_aniso%comps(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%te_aniso%comps(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3194)	edge%fluid%te_aniso%align (vecint_type) (7.9.6.1.19)
alignid (3194)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.6.1.20)
ti_aniso (3189)	edge%fluid%ti_aniso(:) (edge_fluid_vector) (7.9.6.1.199)
griduid (3193)	edge%fluid%ti_aniso(:)%griduid (integer) (7.9.6.1.3)
basis (3193)	edge%fluid%ti_aniso(:)%basis (integer) (7.9.6.1.3)
align (3193)	edge%fluid%ti_aniso(:)%align (vecint_type) (7.9.6.1.19)
alignid (3193)	edge%fluid%ti_aniso(:)%alignid (vecstring_type) (7.9.6.1.20)
comps (3193)	edge%fluid%ti_aniso(:)%comps(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%ti_aniso(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)

flux (3190)	edge%fluid%ti_aniso(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%ti_aniso(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
po (3189)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.6.1.197)
value (3191)	edge%fluid%po%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%value(:)%scalar (vecflt_type) (7.9.6.1.18)

vector (3102)	edge%fluid%po%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3191)	edge%fluid%po%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3191)	edge%fluid%po%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%po%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%po%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%po%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%po%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%po%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%po%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3191)	edge%fluid%po%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%po%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%po%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%po%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%po%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%po%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%po%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3191)	edge%fluid%po%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%po%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%po%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%po%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%po%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%po%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%po%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%po%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%po%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%po%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%po%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3191)	edge%fluid%po%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%po%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%po%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%po%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%po%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%po%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
j (3189)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.6.1.200)
griduid (3194)	edge%fluid%j%griduid (integer) (7.9.6.1.3)

basis (3194)	edge%fluid%j%basis (integer) (7.9.6.1.3)
comps (3194)	edge%fluid%j%comps(:) (edge_fluid_scalar) (7.9.6.1.196)
value (3190)	edge%fluid%j%comps(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3190)	edge%fluid%j%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
flux (3190)	edge%fluid%j%comps(:)%flux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%j%comps(:)%flux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%j%comps(:)%flux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%j%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%j%comps(:)%flux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%j%comps(:)%flux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%j%comps(:)%flux(:)%basis (integer) (7.9.6.1.3)
bndflux (3190)	edge%fluid%j%comps(:)%bndflux(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%j%comps(:)%bndflux(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%j%comps(:)%bndflux(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%j%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%j%comps(:)%bndflux(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%j%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%j%comps(:)%bndflux(:)%basis (integer) (7.9.6.1.3)
transpcoeff (3190)	edge%fluid%j%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.6.1.198)
d (3192)	edge%fluid%j%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%d%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.6.1.20)
v (3192)	edge%fluid%j%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.6.1.115)
label (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%v%label (string) (7.9.6.1.4)
comp (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.6.1.19)
alignid (3109)	edge%fluid%j%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.6.1.20)
source (3190)	edge%fluid%j%comps(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%j%comps(:)%source(:)%griduid (integer) (7.9.6.1.3)

subgrid (3102)	edge%fluid%j%comps(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%j%comps(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%j%comps(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%j%comps(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3194)	edge%fluid%j%align (vecint_type) (7.9.6.1.19)
alignid (3194)	edge%fluid%j%alignid (vecstring_type) (7.9.6.1.20)
b (3189)	edge%fluid%b(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%fluid%b(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%fluid%b(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%fluid%b(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%fluid%b(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%fluid%b(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%fluid%b(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%fluid%b(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%fluid%b(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%fluid%b(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%fluid%b(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%fluid%b(:)%basis (integer) (7.9.6.1.3)
kinetic (3033)	edge%kinetic (edge_kinetic) (7.9.6.1.201)
f (3195)	edge%kinetic%f(:) (edge_kinetic_distribution) (7.9.6.1.202)
value (3196)	edge%kinetic%f(:)%value(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%kinetic%f(:)%value(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%kinetic%f(:)%value(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%kinetic%f(:)%value(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%kinetic%f(:)%value(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%kinetic%f(:)%value(:)%matrix (array3dflt_type) (7.9.6.1.7)
bndvalue (3196)	edge%kinetic%f(:)%bndvalue(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%kinetic%f(:)%bndvalue(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%kinetic%f(:)%bndvalue(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%kinetic%f(:)%bndvalue(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%kinetic%f(:)%bndvalue(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%kinetic%f(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.6.1.7)
fluxes (3196)	edge%kinetic%f(:)%fluxes(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	edge%kinetic%f(:)%fluxes(:)%griduid (integer) (7.9.6.1.3)
label (3108)	edge%kinetic%f(:)%fluxes(:)%label (string) (7.9.6.1.4)
comp (3108)	edge%kinetic%f(:)%fluxes(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%kinetic%f(:)%fluxes(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%kinetic%f(:)%fluxes(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%kinetic%f(:)%fluxes(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%kinetic%f(:)%fluxes(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%kinetic%f(:)%fluxes(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	edge%kinetic%f(:)%fluxes(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	edge%kinetic%f(:)%fluxes(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	edge%kinetic%f(:)%fluxes(:)%basis (integer) (7.9.6.1.3)
source (3196)	edge%kinetic%f(:)%source(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	edge%kinetic%f(:)%source(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	edge%kinetic%f(:)%source(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	edge%kinetic%f(:)%source(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	edge%kinetic%f(:)%source(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	edge%kinetic%f(:)%source(:)%matrix (array3dflt_type) (7.9.6.1.7)
codeparam (3033)	edge%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	edge%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	edge%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	edge%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	edge%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	edge%codeparam%output_flag (integer) (7.9.6.1.3)
time (3033)	edge%time (float) (7.9.6.1.2)

7.9.6.2.18 efcc

datainfo (3034)	efcc%datainfo (datainfo) (7.9.6.1.154)

dataprovider (3148)	efcc%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	efcc%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	efcc%datainfo%source (string) (7.9.6.1.4)
comment (3148)	efcc%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	efcc%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	efcc%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	efcc%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	efcc%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	efcc%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	efcc%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	efcc%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	efcc%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	efcc%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	efcc%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	efcc%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	efcc%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	efcc%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	efcc%datainfo%putinfo%rights (string) (7.9.6.1.4)
coil (3034)	efcc%coil(:) (coil) (7.9.6.1.101)
desc_coils (3095)	efcc%coil(:)%desc_coils (desc_coils) (7.9.6.1.155)
name (3149)	efcc%coil(:)%desc_coils%name (string) (7.9.6.1.4)
res (3149)	efcc%coil(:)%desc_coils%res (float) (7.9.6.1.2)
nturns (3149)	efcc%coil(:)%desc_coils%nturns (integer) (7.9.6.1.3)
closed (3149)	efcc%coil(:)%desc_coils%closed (string) (7.9.6.1.4)
edges (3149)	efcc%coil(:)%desc_coils%edges(:) (edges) (7.9.6.1.203)
edge_rzphi (3197)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi (rzphi1D) (7.9.6.1.383)
r (3377)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%r (vecflt_type) (7.9.6.1.18)
z (3377)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%z (vecflt_type) (7.9.6.1.18)
phi (3377)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%phi (vecflt_type) (7.9.6.1.18)
coilcurrent (3095)	efcc%coil(:)%coilcurrent (exp1D) (7.9.6.1.216)
value (3210)	efcc%coil(:)%coilcurrent%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	efcc%coil(:)%coilcurrent%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	efcc%coil(:)%coilcurrent%relerror (vecflt_type) (7.9.6.1.18)
coilvoltage (3095)	efcc%coil(:)%coilvoltage (exp1D) (7.9.6.1.216)
value (3210)	efcc%coil(:)%coilvoltage%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	efcc%coil(:)%coilvoltage%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	efcc%coil(:)%coilvoltage%relerror (vecflt_type) (7.9.6.1.18)
time (3034)	efcc%time (float) (7.9.6.1.2)
codeparam (3034)	efcc%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	efcc%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	efcc%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	efcc%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	efcc%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	efcc%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.19 equilibrium

datainfo (3035)	equilibrium%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	equilibrium%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	equilibrium%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	equilibrium%datainfo%source (string) (7.9.6.1.4)
comment (3148)	equilibrium%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	equilibrium%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	equilibrium%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	equilibrium%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	equilibrium%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	equilibrium%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	equilibrium%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	equilibrium%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	equilibrium%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.6.1.3)

putinfo (3148)	equilibrium%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	equilibrium%datainfo%putinfo%rights (string) (7.9.6.1.4)
eqconstraint (3035)	equilibrium%eqconstraint (eqconstraint) (7.9.6.1.208)
bpol (3202)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%bpol%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%bpol%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.6.1.18)
bvac_r (3202)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.6.1.210)
measured (3204)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.6.1.2)
source (3204)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.6.1.4)
time (3204)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.6.1.2)
exact (3204)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.6.1.3)
weight (3204)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.6.1.2)
sigma (3204)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.6.1.2)
calculated (3204)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.6.1.2)
chi2 (3204)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.6.1.2)
diamagflux (3202)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.6.1.210)
measured (3204)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.6.1.2)
source (3204)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.6.1.4)
time (3204)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.6.1.2)
exact (3204)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.6.1.3)
weight (3204)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.6.1.2)
sigma (3204)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.6.1.2)
calculated (3204)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.6.1.2)
chi2 (3204)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.6.1.2)
faraday (3202)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%faraday%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%faraday%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.6.1.18)
flux (3202)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%flux%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%flux%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.6.1.18)
i_plasma (3202)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.6.1.210)
measured (3204)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.6.1.2)
source (3204)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.6.1.4)
time (3204)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.6.1.2)
exact (3204)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.6.1.3)
weight (3204)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.6.1.2)
sigma (3204)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.6.1.2)
calculated (3204)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.6.1.2)
chi2 (3204)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.6.1.2)
isoflux (3202)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.6.1.260)

position (3254)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.6.1.377)
r (3371)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.6.1.18)
source (3254)	equilibrium%eqconstraint%isoflux%source (string) (7.9.6.1.4)
weight (3254)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.6.1.18)
sigma (3254)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.6.1.18)
calculated (3254)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3254)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.6.1.18)
jsurf (3202)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%jsurf%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%jsurf%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.6.1.18)
magnet_iron (3202)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.6.1.278)
mr (3272)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.6.1.18)
mz (3272)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.6.1.18)
mse (3202)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%mse%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%mse%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.6.1.18)
ne (3202)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%ne%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%ne%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.6.1.18)
pfcurrent (3202)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.6.1.18)

calculated (3205)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.6.1.18)
pressure (3202)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.6.1.211)
measured (3205)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.6.1.18)
source (3205)	equilibrium%eqconstraint%pressure%source (string) (7.9.6.1.4)
time (3205)	equilibrium%eqconstraint%pressure%time (float) (7.9.6.1.2)
exact (3205)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.6.1.19)
weight (3205)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.6.1.18)
sigma (3205)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.6.1.18)
calculated (3205)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3205)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.6.1.18)
q (3202)	equilibrium%eqconstraint%q (q) (7.9.6.1.361)
qvalue (3355)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.6.1.18)
position (3355)	equilibrium%eqconstraint%q%position (rz1D) (7.9.6.1.377)
r (3371)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.6.1.18)
source (3355)	equilibrium%eqconstraint%q%source (string) (7.9.6.1.4)
exact (3355)	equilibrium%eqconstraint%q%exact (integer) (7.9.6.1.3)
weight (3355)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.6.1.18)
sigma (3355)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.6.1.18)
calculated (3355)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3355)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.6.1.18)
xpts (3202)	equilibrium%eqconstraint%xpts (xpts) (7.9.6.1.526)
position (3520)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.6.1.377)
r (3371)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.6.1.18)
source (3520)	equilibrium%eqconstraint%xpts%source (string) (7.9.6.1.4)
weight (3520)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.6.1.18)
sigma (3520)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.6.1.18)
calculated (3520)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.6.1.18)
chi2 (3520)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.6.1.18)
eqgeometry (3035)	equilibrium%eqgeometry (eqgeometry) (7.9.6.1.209)
source (3203)	equilibrium%eqgeometry%source (string) (7.9.6.1.4)
boundarytype (3203)	equilibrium%eqgeometry%boundarytype (integer) (7.9.6.1.3)
boundary (3203)	equilibrium%eqgeometry%boundary(:) (rz1Dexp) (7.9.6.1.379)
r (3373)	equilibrium%eqgeometry%boundary(:)%r (vecflt_type) (7.9.6.1.18)
z (3373)	equilibrium%eqgeometry%boundary(:)%z (vecflt_type) (7.9.6.1.18)
geom_axis (3203)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.6.1.2)
a_minor (3203)	equilibrium%eqgeometry%a_minor (float) (7.9.6.1.2)
elongation (3203)	equilibrium%eqgeometry%elongation (float) (7.9.6.1.2)
elong_upper (3203)	equilibrium%eqgeometry%elong_upper (float) (7.9.6.1.2)
elong_lower (3203)	equilibrium%eqgeometry%elong_lower (float) (7.9.6.1.2)
tria_upper (3203)	equilibrium%eqgeometry%tria_upper (float) (7.9.6.1.2)
tria_lower (3203)	equilibrium%eqgeometry%tria_lower (float) (7.9.6.1.2)
xpts (3203)	equilibrium%eqgeometry%xpts(:) (rz1Dexp) (7.9.6.1.379)
r (3373)	equilibrium%eqgeometry%xpts(:)%r (vecflt_type) (7.9.6.1.18)
z (3373)	equilibrium%eqgeometry%xpts(:)%z (vecflt_type) (7.9.6.1.18)
left_low_st (3203)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.6.1.2)
right_low_st (3203)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.6.1.2)
left_up_st (3203)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.6.1.2)
right_up_st (3203)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.6.1.2)

active_limit (3203)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%eqgeometry%active_limit%r (float) (7.9.6.1.2)
z (3370)	equilibrium%eqgeometry%active_limit%z (float) (7.9.6.1.2)
ang_lcms_upo (3203)	equilibrium%eqgeometry%ang_lcms_upo (float) (7.9.6.1.2)
ang_lcms_upi (3203)	equilibrium%eqgeometry%ang_lcms_upi (float) (7.9.6.1.2)
ang_lcms_lwo (3203)	equilibrium%eqgeometry%ang_lcms_lwo (float) (7.9.6.1.2)
ang_lcms_lwi (3203)	equilibrium%eqgeometry%ang_lcms_lwi (float) (7.9.6.1.2)
flush (3035)	equilibrium%flush (flush) (7.9.6.1.222)
datainfo (3216)	equilibrium%flush%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	equilibrium%flush%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	equilibrium%flush%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	equilibrium%flush%datainfo%source (string) (7.9.6.1.4)
comment (3148)	equilibrium%flush%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	equilibrium%flush%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	equilibrium%flush%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	equilibrium%flush%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	equilibrium%flush%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	equilibrium%flush%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.6.1.4)
position (3216)	equilibrium%flush%position (rz1D) (7.9.6.1.377)
r (3371)	equilibrium%flush%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	equilibrium%flush%position%z (vecflt_type) (7.9.6.1.18)
coef (3216)	equilibrium%flush%coef (matflt_type) (7.9.6.1.15)
codeparam (3216)	equilibrium%flush%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	equilibrium%flush%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	equilibrium%flush%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	equilibrium%flush%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	equilibrium%flush%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	equilibrium%flush%codeparam%output_flag (integer) (7.9.6.1.3)
global_param (3035)	equilibrium%global_param (global_param) (7.9.6.1.247)
beta_pol (3241)	equilibrium%global_param%beta_pol (float) (7.9.6.1.2)
beta_tor (3241)	equilibrium%global_param%beta_tor (float) (7.9.6.1.2)
beta_normal (3241)	equilibrium%global_param%beta_normal (float) (7.9.6.1.2)
i_plasma (3241)	equilibrium%global_param%i_plasma (float) (7.9.6.1.2)
li (3241)	equilibrium%global_param%li (float) (7.9.6.1.2)
volume (3241)	equilibrium%global_param%volume (float) (7.9.6.1.2)
area (3241)	equilibrium%global_param%area (float) (7.9.6.1.2)
psi_ax (3241)	equilibrium%global_param%psi_ax (float) (7.9.6.1.2)
psi_bound (3241)	equilibrium%global_param%psi_bound (float) (7.9.6.1.2)
mag_axis (3241)	equilibrium%global_param%mag_axis (mag_axis) (7.9.6.1.277)
position (3271)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.6.1.376)
r (3370)	equilibrium%global_param%mag_axis%position%r (float) (7.9.6.1.2)
z (3370)	equilibrium%global_param%mag_axis%position%z (float) (7.9.6.1.2)
bphi (3271)	equilibrium%global_param%mag_axis%bphi (float) (7.9.6.1.2)
q (3271)	equilibrium%global_param%mag_axis%q (float) (7.9.6.1.2)
q_95 (3241)	equilibrium%global_param%q_95 (float) (7.9.6.1.2)
q_min (3241)	equilibrium%global_param%q_min (float) (7.9.6.1.2)
toroid_field (3241)	equilibrium%global_param%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	equilibrium%global_param%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	equilibrium%global_param%toroid_field%b0 (float) (7.9.6.1.2)
w_mhd (3241)	equilibrium%global_param%w_mhd (float) (7.9.6.1.2)
gamma (3241)	equilibrium%global_param%gamma (float) (7.9.6.1.2)
profiles_1d (3035)	equilibrium%profiles_1d (profiles_1d) (7.9.6.1.358)

psi (3352)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.6.1.18)
phi (3352)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.6.1.18)
pressure (3352)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.6.1.18)
F_dia (3352)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.6.1.18)
pprime (3352)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.6.1.18)
ffprime (3352)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.6.1.18)
jphi (3352)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.6.1.18)
jparallel (3352)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.6.1.18)
q (3352)	equilibrium%profiles_1d%q (vecflt_type) (7.9.6.1.18)
shear (3352)	equilibrium%profiles_1d%shear (vecflt_type) (7.9.6.1.18)
r_inboard (3352)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.6.1.18)
r_outboard (3352)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.6.1.18)
rho_tor (3352)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.6.1.18)
dpsidrho_tor (3352)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.6.1.18)
rho_vol (3352)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.6.1.18)
beta_pol (3352)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.6.1.18)
li (3352)	equilibrium%profiles_1d%li (vecflt_type) (7.9.6.1.18)
elongation (3352)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.6.1.18)
tria_upper (3352)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.6.1.18)
tria_lower (3352)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.6.1.18)
volume (3352)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.6.1.18)
vprime (3352)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.6.1.18)
dvdrho (3352)	equilibrium%profiles_1d%dvdrho (vecflt_type) (7.9.6.1.18)
area (3352)	equilibrium%profiles_1d%area (vecflt_type) (7.9.6.1.18)
aprime (3352)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.6.1.18)
surface (3352)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.6.1.18)
ftrap (3352)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.6.1.18)
gm1 (3352)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.6.1.18)
gm2 (3352)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.6.1.18)
gm3 (3352)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.6.1.18)
gm4 (3352)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.6.1.18)
gm5 (3352)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.6.1.18)
gm6 (3352)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.6.1.18)
gm7 (3352)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.6.1.18)
gm8 (3352)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.6.1.18)
gm9 (3352)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.6.1.18)
b_av (3352)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.6.1.18)
b_min (3352)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.6.1.18)
b_max (3352)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.6.1.18)
omega (3352)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.6.1.18)
omegaprime (3352)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.6.1.18)
mach_a (3352)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.6.1.18)
phi_flow (3352)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.6.1.18)
s_flow (3352)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.6.1.18)
h_flow (3352)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.6.1.18)
rho_mass (3352)	equilibrium%profiles_1d%rho_mass (vecflt_type) (7.9.6.1.18)
profiles_2d (3035)	equilibrium%profiles_2d(:) (equilibrium_profiles_2d) (7.9.6.1.214)
grid_type (3208)	equilibrium%profiles_2d(:)%grid_type (vecstring_type) (7.9.6.1.20)
grid (3208)	equilibrium%profiles_2d(:)%grid (equilibrium_profiles2d_grid) (7.9.6.1.213)
dim1 (3207)	equilibrium%profiles_2d(:)%grid%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3207)	equilibrium%profiles_2d(:)%grid%dim2 (vecflt_type) (7.9.6.1.18)
connect (3207)	equilibrium%profiles_2d(:)%grid%connect (matint_type) (7.9.6.1.16)
r (3208)	equilibrium%profiles_2d(:)%r (matflt_type) (7.9.6.1.15)
z (3208)	equilibrium%profiles_2d(:)%z (matflt_type) (7.9.6.1.15)
psi (3208)	equilibrium%profiles_2d(:)%psi (matflt_type) (7.9.6.1.15)
theta (3208)	equilibrium%profiles_2d(:)%theta (matflt_type) (7.9.6.1.15)
phi (3208)	equilibrium%profiles_2d(:)%phi (matflt_type) (7.9.6.1.15)
jphi (3208)	equilibrium%profiles_2d(:)%jphi (matflt_type) (7.9.6.1.15)
jpar (3208)	equilibrium%profiles_2d(:)%jpar (matflt_type) (7.9.6.1.15)
br (3208)	equilibrium%profiles_2d(:)%br (matflt_type) (7.9.6.1.15)
bz (3208)	equilibrium%profiles_2d(:)%bz (matflt_type) (7.9.6.1.15)

bphi (3208)	equilibrium%profiles_2d(:)%bphi (matflt_type) (7.9.6.1.15)
vphi (3208)	equilibrium%profiles_2d(:)%vphi (matflt_type) (7.9.6.1.15)
vtheta (3208)	equilibrium%profiles_2d(:)%vtheta (matflt_type) (7.9.6.1.15)
rho_mass (3208)	equilibrium%profiles_2d(:)%rho_mass (matflt_type) (7.9.6.1.15)
pressure (3208)	equilibrium%profiles_2d(:)%pressure (matflt_type) (7.9.6.1.15)
temperature (3208)	equilibrium%profiles_2d(:)%temperature (matflt_type) (7.9.6.1.15)
coord_sys (3035)	equilibrium%coord_sys (coord_sys) (7.9.6.1.122)
grid_type (3116)	equilibrium%coord_sys%grid_type (string) (7.9.6.1.4)
grid (3116)	equilibrium%coord_sys%grid (reggrid) (7.9.6.1.372)
dim1 (3366)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3366)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.6.1.18)
jacobian (3116)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.6.1.15)
g_11 (3116)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.6.1.15)
g_12 (3116)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.6.1.15)
g_13 (3116)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.6.1.15)
g_22 (3116)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.6.1.15)
g_23 (3116)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.6.1.15)
g_33 (3116)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.6.1.15)
position (3116)	equilibrium%coord_sys%position (rz2D) (7.9.6.1.380)
r (3374)	equilibrium%coord_sys%position%r (matflt_type) (7.9.6.1.15)
z (3374)	equilibrium%coord_sys%position%z (matflt_type) (7.9.6.1.15)
time (3035)	equilibrium%time (float) (7.9.6.1.2)
codeparam (3035)	equilibrium%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	equilibrium%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	equilibrium%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	equilibrium%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	equilibrium%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	equilibrium%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.20 fusiondiag

datainfo (3036)	fusiondiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	fusiondiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	fusiondiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	fusiondiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	fusiondiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	fusiondiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	fusiondiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	fusiondiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	fusiondiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	fusiondiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	fusiondiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	fusiondiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	fusiondiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	fusiondiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	fusiondiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
fus_product (3036)	fusiondiag%fus_product(:) (fusiondiag_fus_product) (7.9.6.1.241)
product (3235)	fusiondiag%fus_product(:)%product (string) (7.9.6.1.4)
reaction (3235)	fusiondiag%fus_product(:)%reaction (string) (7.9.6.1.4)
collimator (3235)	fusiondiag%fus_product(:)%collimator (fusiondiag_collimator) (7.9.6.1.232)
colli_circ (3226)	fusiondiag%fus_product(:)%collimator%colli_circ(:) (fusiondiag_colli_circ) (7.9.6.1.230)
name (3224)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%name (string) (7.9.6.1.4)
setup_line (3224)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line (setup_line) (7.9.6.1.414)
pivot_point (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%r (vecflt_type) (7.9.6.1.18)

z (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang1 (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang1 (vecflt_type) (7.9.6.1.18)
verchordang1 (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang1 (vecflt_type) (7.9.6.1.18)
width (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%width (vecflt_type) (7.9.6.1.18)
second_point (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%phi (vecflt_type) (7.9.6.1.18)
horchordang2 (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang2 (vecflt_type) (7.9.6.1.18)
verchordang2 (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang2 (vecflt_type) (7.9.6.1.18)
third_point (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%phi (vecflt_type) (7.9.6.1.18)
nchordpoints (3408)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%nchordpoints (integer) (7.9.6.1.3)
colliunit (3224)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:) (fusiondiag_colliunit_circ) (7.9.6.1.233)
radius (3227)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%radius (vecflt_type) (7.9.6.1.18)
centre (3227)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%phi (vecflt_type) (7.9.6.1.18)
colli_poly (3226)	fusiondiag%fus_product(:)%collimator%colli_poly(:) (fusiondiag_colli_poly) (7.9.6.1.231)
name (3225)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%name (string) (7.9.6.1.4)
setup_line (3225)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line (setup_line) (7.9.6.1.414)
pivot_point (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang1 (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang1 (vecflt_type) (7.9.6.1.18)
verchordang1 (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang1 (vecflt_type) (7.9.6.1.18)
width (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%width (vecflt_type) (7.9.6.1.18)
second_point (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%phi (vecflt_type) (7.9.6.1.18)
horchordang2 (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang2 (vecflt_type) (7.9.6.1.18)
verchordang2 (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang2 (vecflt_type) (7.9.6.1.18)

third_point (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point (rzphi1D) (7.9.6.1.383)
r (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%phi (vecflt_type) (7.9.6.1.18)
nchordpoints (3408)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%nchordpoints (integer) (7.9.6.1.3)
colliunit (3225)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:) (fusiondiag_colliunit_poly) (7.9.6.1.234)
dimension (3228)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%dimension (float) (7.9.6.1.2)
nodes (3228)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes (rzphi2D) (7.9.6.1.386)
r (3380)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%r (matflt_type) (7.9.6.1.15)
z (3380)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%z (matflt_type) (7.9.6.1.15)
phi (3380)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%phi (matflt_type) (7.9.6.1.15)
colli_3d (3226)	fusiondiag%fus_product(:)%collimator%colli_3d(:) (fusiondiag_colli_3d) (7.9.6.1.229)
name (3223)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%name (string) (7.9.6.1.4)
voxels (3223)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:) (fusiondiag_voxels) (7.9.6.1.244)
centre (3238)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre (rzphi0D) (7.9.6.1.382)
r (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%r (float) (7.9.6.1.2)
z (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%z (float) (7.9.6.1.2)
phi (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%phi (float) (7.9.6.1.2)
direction (3238)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction (rzphi0D) (7.9.6.1.382)
r (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%r (float) (7.9.6.1.2)
z (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%z (float) (7.9.6.1.2)
phi (3376)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%phi (float) (7.9.6.1.2)
volume (3238)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%volume (float) (7.9.6.1.2)
solid_angle (3238)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%solid_angle (float) (7.9.6.1.2)
counts (3235)	fusiondiag%fus_product(:)%counts (fusiondiag_counts) (7.9.6.1.235)
units (3229)	fusiondiag%fus_product(:)%counts%units (string) (7.9.6.1.4)
ct_chords (3229)	fusiondiag%fus_product(:)%counts%ct_chords(:) (fusiondiag_ct_chords) (7.9.6.1.236)
name (3230)	fusiondiag%fus_product(:)%counts%ct_chords(:)%name (vecstring_type) (7.9.6.1.20)
energy (3230)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy (exp0D) (7.9.6.1.215)
value (3209)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%value (float) (7.9.6.1.2)
abserror (3209)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%abserror (float) (7.9.6.1.2)
relerror (3209)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%relerror (float) (7.9.6.1.2)
measure (3230)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%relerror (vecflt_type) (7.9.6.1.18)
ct_energy (3229)	fusiondiag%fus_product(:)%counts%ct_energy(:) (fusiondiag_ct_energy) (7.9.6.1.237)
energy (3231)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%relerror (vecflt_type) (7.9.6.1.18)
measure (3231)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%relerror (vecflt_type) (7.9.6.1.18)
detect_ct (3229)	fusiondiag%fus_product(:)%counts%detect_ct(:) (fusiondiag_detect_ct_energy) (7.9.6.1.238)
energy (3232)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%relerror (vecflt_type) (7.9.6.1.18)
measure (3232)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%abserror (vecflt_type) (7.9.6.1.18)

relerror (3210)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%relerror (vecflt_type) (7.9.6.1.18)
diag_func (3232)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func (diag_func) (7.9.6.1.160)
description (3154)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%description (string) (7.9.6.1.4)
transf_mat (3154)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%transf_mat (matflt_type) (7.9.6.1.15)
emissivity1d (3235)	fusiondiag%fus_product(:)%emissivity1d (fusiondiag_emissivity1d) (7.9.6.1.239)
units (3233)	fusiondiag%fus_product(:)%emissivity1d%units (string) (7.9.6.1.4)
r (3233)	fusiondiag%fus_product(:)%emissivity1d%r (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%emissivity1d%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%emissivity1d%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%emissivity1d%r%relerror (vecflt_type) (7.9.6.1.18)
z (3233)	fusiondiag%fus_product(:)%emissivity1d%z (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%emissivity1d%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%emissivity1d%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%emissivity1d%z%relerror (vecflt_type) (7.9.6.1.18)
spec1d (3233)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:) (fusiondiag_spec1d) (7.9.6.1.242)
energy (3236)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy (exp0D) (7.9.6.1.215)
value (3209)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%value (float) (7.9.6.1.2)
abserror (3209)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%abserror (float) (7.9.6.1.2)
relerror (3209)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%relerror (float) (7.9.6.1.2)
measure (3236)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure (exp1D) (7.9.6.1.216)
value (3210)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%relerror (vecflt_type) (7.9.6.1.18)
emissivity2d (3235)	fusiondiag%fus_product(:)%emissivity2d (fusiondiag_emissivity2d) (7.9.6.1.240)
units (3234)	fusiondiag%fus_product(:)%emissivity2d%units (string) (7.9.6.1.4)
r (3234)	fusiondiag%fus_product(:)%emissivity2d%r (exp2D) (7.9.6.1.217)
value (3211)	fusiondiag%fus_product(:)%emissivity2d%r%value (matflt_type) (7.9.6.1.15)
abserror (3211)	fusiondiag%fus_product(:)%emissivity2d%r%abserror (matflt_type) (7.9.6.1.15)
relerror (3211)	fusiondiag%fus_product(:)%emissivity2d%r%relerror (matflt_type) (7.9.6.1.15)
z (3234)	fusiondiag%fus_product(:)%emissivity2d%z (exp2D) (7.9.6.1.217)
value (3211)	fusiondiag%fus_product(:)%emissivity2d%z%value (matflt_type) (7.9.6.1.15)
abserror (3211)	fusiondiag%fus_product(:)%emissivity2d%z%abserror (matflt_type) (7.9.6.1.15)
relerror (3211)	fusiondiag%fus_product(:)%emissivity2d%z%relerror (matflt_type) (7.9.6.1.15)
spec2d (3234)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:) (fusiondiag_spec2d) (7.9.6.1.243)
energy (3237)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy (exp0D) (7.9.6.1.215)
value (3209)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%value (float) (7.9.6.1.2)
abserror (3209)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%abserror (float) (7.9.6.1.2)
relerror (3209)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%relerror (float) (7.9.6.1.2)
measure (3237)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure (exp2D) (7.9.6.1.217)
value (3211)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%value (matflt_type) (7.9.6.1.15)
abserror (3211)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%abserror (matflt_type) (7.9.6.1.15)
relerror (3211)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%relerror (matflt_type) (7.9.6.1.15)
codeparam (3235)	fusiondiag%fus_product(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	fusiondiag%fus_product(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	fusiondiag%fus_product(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	fusiondiag%fus_product(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	fusiondiag%fus_product(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	fusiondiag%fus_product(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3036)	fusiondiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	fusiondiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	fusiondiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	fusiondiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	fusiondiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	fusiondiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3036)	fusiondiag%time (float) (7.9.6.1.2)

7.9.6.2.21 halphadiag

datainfo (3037)	halphadiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	halphadiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	halphadiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	halphadiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	halphadiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	halphadiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	halphadiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	halphadiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	halphadiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	halphadiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	halphadiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	halphadiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	halphadiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	halphadiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	halphadiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	halphadiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	halphadiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	halphadiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	halphadiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3037)	halphadiag%setup (halpha_setup) (7.9.6.1.249)
name (3243)	halphadiag%setup%name (vecstring_type) (7.9.6.1.20)
pivot_point (3243)	halphadiag%setup%pivot_point (rzphi1D) (7.9.6.1.383)
r (3377)	halphadiag%setup%pivot_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	halphadiag%setup%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	halphadiag%setup%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang (3243)	halphadiag%setup%horchordang (vecflt_type) (7.9.6.1.18)
verchordang (3243)	halphadiag%setup%verchordang (vecflt_type) (7.9.6.1.18)
second_point (3243)	halphadiag%setup%second_point (rzphi1D) (7.9.6.1.383)
r (3377)	halphadiag%setup%second_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	halphadiag%setup%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	halphadiag%setup%second_point%phi (vecflt_type) (7.9.6.1.18)
solidangle (3243)	halphadiag%setup%solidangle (exp1D) (7.9.6.1.216)
value (3210)	halphadiag%setup%solidangle%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	halphadiag%setup%solidangle%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	halphadiag%setup%solidangle%relerror (vecflt_type) (7.9.6.1.18)
intensity (3037)	halphadiag%intensity (exp1D) (7.9.6.1.216)
value (3210)	halphadiag%intensity%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	halphadiag%intensity%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	halphadiag%intensity%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3037)	halphadiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	halphadiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	halphadiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	halphadiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	halphadiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	halphadiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3037)	halphadiag%time (float) (7.9.6.1.2)

7.9.6.2.22 heat_sources

datainfo (3038)	heat_sources%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	heat_sources%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	heat_sources%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	heat_sources%datainfo%source (string) (7.9.6.1.4)
comment (3148)	heat_sources%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	heat_sources%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	heat_sources%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	heat_sources%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	heat_sources%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	heat_sources%datainfo%whatref%user (string) (7.9.6.1.4)

machine (3518)	heat_sources%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	heat_sources%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	heat_sources%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	heat_sources%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	heat_sources%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	heat_sources%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	heat_sources%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	heat_sources%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	heat_sources%datainfo%putinfo%rights (string) (7.9.6.1.4)
sources (3038)	heat_sources%sources(:) (calorimetry_heat_source) (7.9.6.1.94)
name (3088)	heat_sources%sources(:)%name (string) (7.9.6.1.4)
temp_in (3088)	heat_sources%sources(:)%temp_in (float) (7.9.6.1.2)
temp_out (3088)	heat_sources%sources(:)%temp_out (float) (7.9.6.1.2)
press_in (3088)	heat_sources%sources(:)%press_in (float) (7.9.6.1.2)
press_out (3088)	heat_sources%sources(:)%press_out (float) (7.9.6.1.2)
flow (3088)	heat_sources%sources(:)%flow (float) (7.9.6.1.2)
power (3088)	heat_sources%sources(:)%power (float) (7.9.6.1.2)
sinks (3038)	heat_sources%sinks(:) (calorimetry_heat_source) (7.9.6.1.94)
name (3088)	heat_sources%sinks(:)%name (string) (7.9.6.1.4)
temp_in (3088)	heat_sources%sinks(:)%temp_in (float) (7.9.6.1.2)
temp_out (3088)	heat_sources%sinks(:)%temp_out (float) (7.9.6.1.2)
press_in (3088)	heat_sources%sinks(:)%press_in (float) (7.9.6.1.2)
press_out (3088)	heat_sources%sinks(:)%press_out (float) (7.9.6.1.2)
flow (3088)	heat_sources%sinks(:)%flow (float) (7.9.6.1.2)
power (3088)	heat_sources%sinks(:)%power (float) (7.9.6.1.2)
codeparam (3038)	heat_sources%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	heat_sources%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	heat_sources%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	heat_sources%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	heat_sources%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	heat_sources%codeparam%output_flag (integer) (7.9.6.1.3)
time (3038)	heat_sources%time (float) (7.9.6.1.2)

7.9.6.2.23 interfdiag

datainfo (3267)	lineintegraldiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	lineintegraldiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	lineintegraldiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	lineintegraldiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	lineintegraldiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	lineintegraldiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	lineintegraldiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	lineintegraldiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	lineintegraldiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	lineintegraldiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
expression (3267)	lineintegraldiag%expression (string) (7.9.6.1.4)
setup_line (3267)	lineintegraldiag%setup_line (setup_line) (7.9.6.1.414)
pivot_point (3408)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang1 (3408)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.6.1.18)

verchordang1 (3408)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.6.1.18)
width (3408)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.6.1.18)
second_point (3408)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.6.1.18)
horchordang2 (3408)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.6.1.18)
verchordang2 (3408)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.6.1.18)
third_point (3408)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.6.1.18)
nchordpoints (3408)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.6.1.3)
measure (3267)	lineintegraldiag%measure (exp1D) (7.9.6.1.216)
value (3210)	lineintegraldiag%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3267)	lineintegraldiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	lineintegraldiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	lineintegraldiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	lineintegraldiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	lineintegraldiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	lineintegraldiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3267)	lineintegraldiag%time (float) (7.9.6.1.2)

7.9.6.2.24 ironmodel

datainfo (3040)	ironmodel%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	ironmodel%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	ironmodel%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	ironmodel%datainfo%source (string) (7.9.6.1.4)
comment (3148)	ironmodel%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	ironmodel%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	ironmodel%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	ironmodel%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	ironmodel%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	ironmodel%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	ironmodel%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	ironmodel%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	ironmodel%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	ironmodel%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	ironmodel%datainfo%putinfo%rights (string) (7.9.6.1.4)
desc_iron (3040)	ironmodel%desc_iron (desc_iron) (7.9.6.1.157)
name (3151)	ironmodel%desc_iron%name (vecstring_type) (7.9.6.1.20)
id (3151)	ironmodel%desc_iron%id (vecstring_type) (7.9.6.1.20)
permeability (3151)	ironmodel%desc_iron%permeability (permeability) (7.9.6.1.338)
b (3332)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.6.1.15)
mur (3332)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.6.1.15)
geom_iron (3151)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.6.1.246)
npoints (3240)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.6.1.19)
rzcoordinate (3240)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.6.1.380)
r (3374)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.6.1.15)
z (3374)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.6.1.15)
magnetise (3040)	ironmodel%magnetise (magnetise) (7.9.6.1.279)
mr (3273)	ironmodel%magnetise%mr (exp1D) (7.9.6.1.216)
value (3210)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.6.1.18)

relerror (3210)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.6.1.18)
mz (3273)	ironmodel%magnetise%mz (exp1D) (7.9.6.1.216)
value (3210)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3040)	ironmodel%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	ironmodel%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	ironmodel%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	ironmodel%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	ironmodel%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	ironmodel%codeparam%output_flag (integer) (7.9.6.1.3)
time (3040)	ironmodel%time (float) (7.9.6.1.2)

7.9.6.2.25 langmuirdiag

datainfo (3041)	langmuirdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	langmuirdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	langmuirdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	langmuirdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	langmuirdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	langmuirdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	langmuirdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	langmuirdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	langmuirdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	langmuirdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	langmuirdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	langmuirdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
potential (3041)	langmuirdiag%potential (lang_measure) (7.9.6.1.263)
name (3257)	langmuirdiag%potential%name (vecstring_type) (7.9.6.1.20)
direction (3257)	langmuirdiag%potential%direction (vecstring_type) (7.9.6.1.20)
area (3257)	langmuirdiag%potential%area (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%potential%area%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.6.1.18)
position (3257)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%potential%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%potential%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%potential%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3257)	langmuirdiag%potential%measure (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.6.1.18)
bias (3041)	langmuirdiag%bias (lang_measure) (7.9.6.1.263)
name (3257)	langmuirdiag%bias%name (vecstring_type) (7.9.6.1.20)
direction (3257)	langmuirdiag%bias%direction (vecstring_type) (7.9.6.1.20)

area (3257)	langmuirdiag%bias%area (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%bias%area%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.6.1.18)
position (3257)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%bias%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%bias%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%bias%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3257)	langmuirdiag%bias%measure (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.6.1.18)
jsat (3041)	langmuirdiag%jsat (lang_measure) (7.9.6.1.263)
name (3257)	langmuirdiag%jsat%name (vecstring_type) (7.9.6.1.20)
direction (3257)	langmuirdiag%jsat%direction (vecstring_type) (7.9.6.1.20)
area (3257)	langmuirdiag%jsat%area (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.6.1.18)
position (3257)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%jsat%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%jsat%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%jsat%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3257)	langmuirdiag%jsat%measure (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.6.1.18)
ne (3041)	langmuirdiag%ne (lang_derived) (7.9.6.1.262)
source (3256)	langmuirdiag%ne%source (vecstring_type) (7.9.6.1.20)
position (3256)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%ne%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%ne%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%ne%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3256)	langmuirdiag%ne%measure (exp1D) (7.9.6.1.216)

value (3210)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.6.1.18)
te (3041)	langmuirdiag%te (lang_derived) (7.9.6.1.262)
source (3256)	langmuirdiag%te%source (vecstring_type) (7.9.6.1.20)
position (3256)	langmuirdiag%te%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%te%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%te%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%te%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%te%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%te%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%te%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%te%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%te%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%te%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3256)	langmuirdiag%te%measure (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%te%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%te%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%te%measure%relerror (vecflt_type) (7.9.6.1.18)
machpar (3041)	langmuirdiag%machpar (lang_derived) (7.9.6.1.262)
source (3256)	langmuirdiag%machpar%source (vecstring_type) (7.9.6.1.20)
position (3256)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	langmuirdiag%machpar%position%r (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%machpar%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%machpar%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	langmuirdiag%machpar%position%z (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%machpar%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%machpar%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	langmuirdiag%machpar%position%phi (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%machpar%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%machpar%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3256)	langmuirdiag%machpar%measure (exp1D) (7.9.6.1.216)
value (3210)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	langmuirdiag%machpar%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	langmuirdiag%machpar%measure%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3041)	langmuirdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	langmuirdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	langmuirdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	langmuirdiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	langmuirdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	langmuirdiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3041)	langmuirdiag%time (float) (7.9.6.1.2)

7.9.6.2.26 launchs

datainfo (3042)	launchs%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	launchs%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	launchs%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	launchs%datainfo%source (string) (7.9.6.1.4)
comment (3148)	launchs%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	launchs%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	launchs%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	launchs%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	launchs%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	launchs%datainfo%whatref%user (string) (7.9.6.1.4)

machine (3518)	launchs%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	launchs%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	launchs%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	launchs%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	launchs%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	launchs%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	launchs%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	launchs%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	launchs%datainfo%putinfo%rights (string) (7.9.6.1.4)
name (3042)	launchs%name (vecstring_type) (7.9.6.1.20)
type (3042)	launchs%type (vecstring_type) (7.9.6.1.20)
frequency (3042)	launchs%frequency (vecflt_type) (7.9.6.1.18)
mode (3042)	launchs%mode (vecint_type) (7.9.6.1.19)
position (3042)	launchs%position (rzphi1D) (7.9.6.1.383)
r (3377)	launchs%position%r (vecflt_type) (7.9.6.1.18)
z (3377)	launchs%position%z (vecflt_type) (7.9.6.1.18)
phi (3377)	launchs%position%phi (vecflt_type) (7.9.6.1.18)
spectrum (3042)	launchs%spectrum (spectrum) (7.9.6.1.431)
phi_theta (3425)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.6.1.266)
nn_phi (3260)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.6.1.19)
nn_theta (3260)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.6.1.19)
n_phi (3260)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.6.1.15)
n_theta (3260)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.6.1.15)
power (3260)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.6.1.7)
parallel (3425)	launchs%spectrum%parallel (launchs_parallel) (7.9.6.1.265)
nn_par (3259)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.6.1.19)
n_par (3259)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.6.1.15)
power (3259)	launchs%spectrum%parallel%power (vecflt_type) (7.9.6.1.18)
beam (3042)	launchs%beam (launchs_rfbeam) (7.9.6.1.267)
spot (3261)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.6.1.269)
waist (3263)	launchs%beam%spot%waist (matflt_type) (7.9.6.1.15)
angle (3263)	launchs%beam%spot%angle (vecflt_type) (7.9.6.1.18)
phaseellipse (3261)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.6.1.268)
invcurvrad (3262)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.6.1.15)
angle (3262)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.6.1.18)
codeparam (3042)	launchs%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	launchs%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	launchs%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	launchs%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	launchs%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	launchs%codeparam%output_flag (integer) (7.9.6.1.3)
time (3042)	launchs%time (float) (7.9.6.1.2)

7.9.6.2.27 lithiumdiag

datainfo (3043)	lithiumdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	lithiumdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	lithiumdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	lithiumdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	lithiumdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	lithiumdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	lithiumdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	lithiumdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	lithiumdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	lithiumdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	lithiumdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	lithiumdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	lithiumdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	lithiumdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	lithiumdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	lithiumdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)

putaccess (3354)	lithiumdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	lithiumdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	lithiumdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3043)	lithiumdiag%setup (lithsetup) (7.9.6.1.275)
position (3269)	lithiumdiag%setup%position (rzphi1D) (7.9.6.1.383)
r (3377)	lithiumdiag%setup%position%r (vecflt_type) (7.9.6.1.18)
z (3377)	lithiumdiag%setup%position%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lithiumdiag%setup%position%phi (vecflt_type) (7.9.6.1.18)
measure (3043)	lithiumdiag%measure (lithmeasure) (7.9.6.1.274)
ne (3268)	lithiumdiag%measure%ne (exp1D) (7.9.6.1.216)
value (3210)	lithiumdiag%measure%ne%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	lithiumdiag%measure%ne%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	lithiumdiag%measure%ne%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3043)	lithiumdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	lithiumdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	lithiumdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	lithiumdiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	lithiumdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	lithiumdiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3043)	lithiumdiag%time (float) (7.9.6.1.2)

7.9.6.2.28 magdiag

datainfo (3044)	magdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	magdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	magdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	magdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	magdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	magdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	magdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	magdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	magdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	magdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	magdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	magdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	magdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	magdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	magdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	magdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	magdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	magdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	magdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
ip (3044)	magdiag%ip (exp0D) (7.9.6.1.215)
value (3209)	magdiag%ip%value (float) (7.9.6.1.2)
abserror (3209)	magdiag%ip%abserror (float) (7.9.6.1.2)
relerror (3209)	magdiag%ip%relerror (float) (7.9.6.1.2)
diamagflux (3044)	magdiag%diamagflux (exp0D) (7.9.6.1.215)
value (3209)	magdiag%diamagflux%value (float) (7.9.6.1.2)
abserror (3209)	magdiag%diamagflux%abserror (float) (7.9.6.1.2)
relerror (3209)	magdiag%diamagflux%relerror (float) (7.9.6.1.2)
diamagener (3044)	magdiag%diamagener (exp0D) (7.9.6.1.215)
value (3209)	magdiag%diamagener%value (float) (7.9.6.1.2)
abserror (3209)	magdiag%diamagener%abserror (float) (7.9.6.1.2)
relerror (3209)	magdiag%diamagener%relerror (float) (7.9.6.1.2)
flux_loops (3044)	magdiag%flux_loops (flux_loops) (7.9.6.1.223)
setup_floops (3217)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.6.1.413)
name (3407)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.6.1.20)
id (3407)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.6.1.20)
position (3407)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.6.1.386)
r (3380)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.6.1.15)
z (3380)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.6.1.15)

phi (3380)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.6.1.15)
npoints (3407)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.6.1.19)
measure (3217)	magdiag%flux_loops%measure (exp1D) (7.9.6.1.216)
value (3210)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.6.1.18)
bpol_probes (3044)	magdiag%bpol_probes (bpol_probes) (7.9.6.1.93)
setup_bprobe (3087)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.6.1.412)
name (3406)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.6.1.20)
id (3406)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.6.1.20)
position (3406)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.6.1.377)
r (3371)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.6.1.18)
polangle (3406)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.6.1.18)
torangle (3406)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.6.1.18)
area (3406)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.6.1.18)
length (3406)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.6.1.18)
turns (3406)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.6.1.19)
measure (3087)	magdiag%bpol_probes%measure (exp1D) (7.9.6.1.216)
value (3210)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3044)	magdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	magdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	magdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	magdiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	magdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	magdiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3044)	magdiag%time (float) (7.9.6.1.2)

7.9.6.2.29 mhd

datainfo (3045)	mhd%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	mhd%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	mhd%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	mhd%datainfo%source (string) (7.9.6.1.4)
comment (3148)	mhd%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	mhd%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	mhd%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	mhd%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	mhd%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	mhd%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	mhd%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	mhd%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	mhd%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	mhd%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	mhd%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	mhd%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	mhd%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	mhd%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	mhd%datainfo%putinfo%rights (string) (7.9.6.1.4)
toroid_field (3045)	mhd%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	mhd%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	mhd%toroid_field%b0 (float) (7.9.6.1.2)
n (3045)	mhd%n(:) (mhd_mode) (7.9.6.1.283)
modenum (3277)	mhd%n(:)%modenum (integer) (7.9.6.1.3)
growthrate (3277)	mhd%n(:)%growthrate (float) (7.9.6.1.2)
frequency (3277)	mhd%n(:)%frequency (float) (7.9.6.1.2)
plasma (3277)	mhd%n(:)%plasma (mhd_plasma) (7.9.6.1.284)
psi (3278)	mhd%n(:)%plasma%psi (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3278)	mhd%n(:)%plasma%rho_tor_norm (vecflt_type) (7.9.6.1.18)

rho_tor (3278)	mhd%n(:)%plasma%rho_tor (vecflt_type) (7.9.6.1.18)
m (3278)	mhd%n(:)%plasma%m (matflt_type) (7.9.6.1.15)
disp_perp (3278)	mhd%n(:)%plasma%disp_perp (matcplx_type) (7.9.6.1.14)
disp_par (3278)	mhd%n(:)%plasma%disp_par (matcplx_type) (7.9.6.1.14)
tau_alfven (3278)	mhd%n(:)%plasma%tau_alfven (vecflt_type) (7.9.6.1.18)
tau_res (3278)	mhd%n(:)%plasma%tau_res (vecflt_type) (7.9.6.1.18)
coord_sys (3278)	mhd%n(:)%plasma%coord_sys (coord_sys) (7.9.6.1.122)
grid_type (3116)	mhd%n(:)%plasma%coord_sys%grid_type (string) (7.9.6.1.4)
grid (3116)	mhd%n(:)%plasma%coord_sys%grid (reggrid) (7.9.6.1.372)
dim1 (3366)	mhd%n(:)%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3366)	mhd%n(:)%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.6.1.18)
jacobian (3116)	mhd%n(:)%plasma%coord_sys%jacobian (matflt_type) (7.9.6.1.15)
g_11 (3116)	mhd%n(:)%plasma%coord_sys%g_11 (matflt_type) (7.9.6.1.15)
g_12 (3116)	mhd%n(:)%plasma%coord_sys%g_12 (matflt_type) (7.9.6.1.15)
g_13 (3116)	mhd%n(:)%plasma%coord_sys%g_13 (matflt_type) (7.9.6.1.15)
g_22 (3116)	mhd%n(:)%plasma%coord_sys%g_22 (matflt_type) (7.9.6.1.15)
g_23 (3116)	mhd%n(:)%plasma%coord_sys%g_23 (matflt_type) (7.9.6.1.15)
g_33 (3116)	mhd%n(:)%plasma%coord_sys%g_33 (matflt_type) (7.9.6.1.15)
position (3116)	mhd%n(:)%plasma%coord_sys%position (rz2D) (7.9.6.1.380)
r (3374)	mhd%n(:)%plasma%coord_sys%position%r (matflt_type) (7.9.6.1.15)
z (3374)	mhd%n(:)%plasma%coord_sys%position%z (matflt_type) (7.9.6.1.15)
a_pert (3278)	mhd%n(:)%plasma%a_pert (mhd_vector) (7.9.6.1.287)
coord1 (3281)	mhd%n(:)%plasma%a_pert%coord1 (matcplx_type) (7.9.6.1.14)
coord2 (3281)	mhd%n(:)%plasma%a_pert%coord2 (matcplx_type) (7.9.6.1.14)
coord3 (3281)	mhd%n(:)%plasma%a_pert%coord3 (matcplx_type) (7.9.6.1.14)
b_pert (3278)	mhd%n(:)%plasma%b_pert (mhd_vector) (7.9.6.1.287)
coord1 (3281)	mhd%n(:)%plasma%b_pert%coord1 (matcplx_type) (7.9.6.1.14)
coord2 (3281)	mhd%n(:)%plasma%b_pert%coord2 (matcplx_type) (7.9.6.1.14)
coord3 (3281)	mhd%n(:)%plasma%b_pert%coord3 (matcplx_type) (7.9.6.1.14)
v_pert (3278)	mhd%n(:)%plasma%v_pert (mhd_vector) (7.9.6.1.287)
coord1 (3281)	mhd%n(:)%plasma%v_pert%coord1 (matcplx_type) (7.9.6.1.14)
coord2 (3281)	mhd%n(:)%plasma%v_pert%coord2 (matcplx_type) (7.9.6.1.14)
coord3 (3281)	mhd%n(:)%plasma%v_pert%coord3 (matcplx_type) (7.9.6.1.14)
p_pert (3278)	mhd%n(:)%plasma%p_pert (matcplx_type) (7.9.6.1.14)
rho_mass_per (3278)	mhd%n(:)%plasma%rho_mass_per (matcplx_type) (7.9.6.1.14)
temp_per (3278)	mhd%n(:)%plasma%temp_per (matcplx_type) (7.9.6.1.14)
vacuum (3277)	mhd%n(:)%vacuum (mhd_vacuum) (7.9.6.1.286)
m (3280)	mhd%n(:)%vacuum%m (array3dflt_type) (7.9.6.1.7)
coord_sys (3280)	mhd%n(:)%vacuum%coord_sys (coord_sys) (7.9.6.1.122)
grid_type (3116)	mhd%n(:)%vacuum%coord_sys%grid_type (string) (7.9.6.1.4)
grid (3116)	mhd%n(:)%vacuum%coord_sys%grid (reggrid) (7.9.6.1.372)
dim1 (3366)	mhd%n(:)%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3366)	mhd%n(:)%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.6.1.18)
jacobian (3116)	mhd%n(:)%vacuum%coord_sys%jacobian (matflt_type) (7.9.6.1.15)
g_11 (3116)	mhd%n(:)%vacuum%coord_sys%g_11 (matflt_type) (7.9.6.1.15)
g_12 (3116)	mhd%n(:)%vacuum%coord_sys%g_12 (matflt_type) (7.9.6.1.15)
g_13 (3116)	mhd%n(:)%vacuum%coord_sys%g_13 (matflt_type) (7.9.6.1.15)
g_22 (3116)	mhd%n(:)%vacuum%coord_sys%g_22 (matflt_type) (7.9.6.1.15)
g_23 (3116)	mhd%n(:)%vacuum%coord_sys%g_23 (matflt_type) (7.9.6.1.15)
g_33 (3116)	mhd%n(:)%vacuum%coord_sys%g_33 (matflt_type) (7.9.6.1.15)
position (3116)	mhd%n(:)%vacuum%coord_sys%position (rz2D) (7.9.6.1.380)
r (3374)	mhd%n(:)%vacuum%coord_sys%position%r (matflt_type) (7.9.6.1.15)
z (3374)	mhd%n(:)%vacuum%coord_sys%position%z (matflt_type) (7.9.6.1.15)
a_pert (3280)	mhd%n(:)%vacuum%a_pert (mhd_vector) (7.9.6.1.287)
coord1 (3281)	mhd%n(:)%vacuum%a_pert%coord1 (matcplx_type) (7.9.6.1.14)
coord2 (3281)	mhd%n(:)%vacuum%a_pert%coord2 (matcplx_type) (7.9.6.1.14)
coord3 (3281)	mhd%n(:)%vacuum%a_pert%coord3 (matcplx_type) (7.9.6.1.14)
b_pert (3280)	mhd%n(:)%vacuum%b_pert (mhd_vector) (7.9.6.1.287)
coord1 (3281)	mhd%n(:)%vacuum%b_pert%coord1 (matcplx_type) (7.9.6.1.14)
coord2 (3281)	mhd%n(:)%vacuum%b_pert%coord2 (matcplx_type) (7.9.6.1.14)
coord3 (3281)	mhd%n(:)%vacuum%b_pert%coord3 (matcplx_type) (7.9.6.1.14)

time (3045)	mhd%time (float) (7.9.6.1.2)
codeparam (3045)	mhd%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	mhd%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	mhd%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	mhd%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	mhd%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	mhd%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.30 msediag

datainfo (3046)	msediag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	msediag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	msediag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	msediag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	msediag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	msediag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	msediag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	msediag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	msediag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	msediag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	msediag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	msediag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	msediag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	msediag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	msediag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	msediag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	msediag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	msediag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	msediag%datainfo%putinfo%rights (string) (7.9.6.1.4)
polarimetry (3046)	msediag%polarimetry (polarimetry) (7.9.6.1.352)
setup (3346)	msediag%polarimetry%setup (msediag_setup_polarimetry) (7.9.6.1.301)
rzgamma (3295)	msediag%polarimetry%setup%rzgamma (rzphidrdzdphi1D) (7.9.6.1.388)
r (3382)	msediag%polarimetry%setup%rzgamma%r (vecflt_type) (7.9.6.1.18)
z (3382)	msediag%polarimetry%setup%rzgamma%z (vecflt_type) (7.9.6.1.18)
phi (3382)	msediag%polarimetry%setup%rzgamma%phi (vecflt_type) (7.9.6.1.18)
dr (3382)	msediag%polarimetry%setup%rzgamma%dr (vecflt_type) (7.9.6.1.18)
dz (3382)	msediag%polarimetry%setup%rzgamma%dz (vecflt_type) (7.9.6.1.18)
dphi (3382)	msediag%polarimetry%setup%rzgamma%dphi (vecflt_type) (7.9.6.1.18)
geom_coef (3295)	msediag%polarimetry%setup%geom_coef (matflt_type) (7.9.6.1.15)
measure (3346)	msediag%polarimetry%measure (exp1D) (7.9.6.1.216)
value (3210)	msediag%polarimetry%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	msediag%polarimetry%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	msediag%polarimetry%measure%relerror (vecflt_type) (7.9.6.1.18)
spectral (3046)	msediag%spectral (spectral) (7.9.6.1.430)
emissivity (3424)	msediag%spectral%emissivity (msediag_emissivity) (7.9.6.1.296)
wavelength (3290)	msediag%spectral%emissivity%wavelength (vecflt_type) (7.9.6.1.18)
emiss_chord (3290)	msediag%spectral%emissivity%emiss_chord(:) (msediag_emiss_chord) (7.9.6.1.295)
volume (3289)	msediag%spectral%emissivity%emiss_chord(:)%volume (float) (7.9.6.1.2)
setup (3289)	msediag%spectral%emissivity%emiss_chord(:)%setup (rzphi1D) (7.9.6.1.383)
r (3377)	msediag%spectral%emissivity%emiss_chord(:)%setup%r (vecflt_type) (7.9.6.1.18)
z (3377)	msediag%spectral%emissivity%emiss_chord(:)%setup%z (vecflt_type) (7.9.6.1.18)
phi (3377)	msediag%spectral%emissivity%emiss_chord(:)%setup%phi (vecflt_type) (7.9.6.1.18)
polarization (3289)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:) (msediag_polarization) (7.9.6.1.297)
type (3291)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type (identifier) (7.9.6.1.254)
id (3248)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%id (string) (7.9.6.1.4)
flag (3248)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%description (string) (7.9.6.1.4)
spec_emiss (3291)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%spec_emiss (matflt_type) (7.9.6.1.15)

quantiaxis (3289)	msediag%spectral%emissivity%emiss_chord(:)%quantiaxis (vecflt_type) (7.9.6.1.18)
radiance (3424)	msediag%spectral%radiance (msediag_radiance) (7.9.6.1.299)
wavelength (3293)	msediag%spectral%radiance%wavelength (exp1D) (7.9.6.1.216)
value (3210)	msediag%spectral%radiance%wavelength%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	msediag%spectral%radiance%wavelength%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	msediag%spectral%radiance%wavelength%relerror (vecflt_type) (7.9.6.1.18)
radia_chord (3293)	msediag%spectral%radiance%radia_chord(:) (msediag_radia_chord) (7.9.6.1.298)
setup (3292)	msediag%spectral%radiance%radia_chord(:)%setup (msediag_setup) (7.9.6.1.300)
pivot_point (3294)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point (rzphi0D) (7.9.6.1.382)
r (3376)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%r (float) (7.9.6.1.2)
z (3376)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%z (float) (7.9.6.1.2)
phi (3376)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%phi (float) (7.9.6.1.2)
horchordang (3294)	msediag%spectral%radiance%radia_chord(:)%setup%horchordang (float) (7.9.6.1.2)
verchordang (3294)	msediag%spectral%radiance%radia_chord(:)%setup%verchordang (float) (7.9.6.1.2)
second_point (3294)	msediag%spectral%radiance%radia_chord(:)%setup%second_point (rzphi0D) (7.9.6.1.382)
r (3376)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%r (float) (7.9.6.1.2)
z (3376)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%z (float) (7.9.6.1.2)
phi (3376)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%phi (float) (7.9.6.1.2)
stokes (3292)	msediag%spectral%radiance%radia_chord(:)%stokes(:) (msediag_stokes) (7.9.6.1.302)
type (3296)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type (identifier) (7.9.6.1.254)
id (3248)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%id (string) (7.9.6.1.4)
flag (3248)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%description (string) (7.9.6.1.4)
vector (3296)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%vector (matflt_type) (7.9.6.1.15)
totradiance (3292)	msediag%spectral%radiance%radia_chord(:)%totradiance (exp1D) (7.9.6.1.216)
value (3210)	msediag%spectral%radiance%radia_chord(:)%totradiance%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	msediag%spectral%radiance%radia_chord(:)%totradiance%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	msediag%spectral%radiance%radia_chord(:)%totradiance%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3424)	msediag%spectral%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	msediag%spectral%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	msediag%spectral%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	msediag%spectral%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	msediag%spectral%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	msediag%spectral%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3046)	msediag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	msediag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	msediag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	msediag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	msediag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	msediag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3046)	msediag%time (float) (7.9.6.1.2)

7.9.6.2.31 nbi

datainfo (3047)	nbi%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	nbi%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	nbi%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	nbi%datainfo%source (string) (7.9.6.1.4)
comment (3148)	nbi%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	nbi%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	nbi%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	nbi%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	nbi%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	nbi%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	nbi%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	nbi%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	nbi%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	nbi%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	nbi%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	nbi%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	nbi%datainfo%putinfo%putaccess (string) (7.9.6.1.4)

putlocation (3354)	nbi%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	nbi%datainfo%putinfo%rights (string) (7.9.6.1.4)
nbi_unit (3047)	nbi%nbi_unit(:) (nbi_unit) (7.9.6.1.305)
name (3299)	nbi%nbi_unit(:)%name (string) (7.9.6.1.4)
inj_spec (3299)	nbi%nbi_unit(:)%inj_spec (inj_spec) (7.9.6.1.258)
amn (3252)	nbi%nbi_unit(:)%inj_spec%amn (float) (7.9.6.1.2)
zn (3252)	nbi%nbi_unit(:)%inj_spec%zn (float) (7.9.6.1.2)
pow_unit (3299)	nbi%nbi_unit(:)%pow_unit (exp0D) (7.9.6.1.215)
value (3209)	nbi%nbi_unit(:)%pow_unit%value (float) (7.9.6.1.2)
abserror (3209)	nbi%nbi_unit(:)%pow_unit%abserror (float) (7.9.6.1.2)
relerror (3209)	nbi%nbi_unit(:)%pow_unit%relerror (float) (7.9.6.1.2)
inj_eng_unit (3299)	nbi%nbi_unit(:)%inj_eng_unit (exp0D) (7.9.6.1.215)
value (3209)	nbi%nbi_unit(:)%inj_eng_unit%value (float) (7.9.6.1.2)
abserror (3209)	nbi%nbi_unit(:)%inj_eng_unit%abserror (float) (7.9.6.1.2)
relerror (3209)	nbi%nbi_unit(:)%inj_eng_unit%relerror (float) (7.9.6.1.2)
beamcurrfrac (3299)	nbi%nbi_unit(:)%beamcurrfrac (exp1D) (7.9.6.1.216)
value (3210)	nbi%nbi_unit(:)%beamcurrfrac%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	nbi%nbi_unit(:)%beamcurrfrac%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	nbi%nbi_unit(:)%beamcurrfrac%relerror (vecflt_type) (7.9.6.1.18)
beampowrfrac (3299)	nbi%nbi_unit(:)%beampowrfrac (exp1D) (7.9.6.1.216)
value (3210)	nbi%nbi_unit(:)%beampowrfrac%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	nbi%nbi_unit(:)%beampowrfrac%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	nbi%nbi_unit(:)%beampowrfrac%relerror (vecflt_type) (7.9.6.1.18)
beamletgroup (3299)	nbi%nbi_unit(:)%beamletgroup(:) (beamletgroup) (7.9.6.1.85)
position (3079)	nbi%nbi_unit(:)%beamletgroup(:)%position (rzphi0D) (7.9.6.1.382)
r (3376)	nbi%nbi_unit(:)%beamletgroup(:)%position%r (float) (7.9.6.1.2)
z (3376)	nbi%nbi_unit(:)%beamletgroup(:)%position%z (float) (7.9.6.1.2)
phi (3376)	nbi%nbi_unit(:)%beamletgroup(:)%position%phi (float) (7.9.6.1.2)
tang_rad (3079)	nbi%nbi_unit(:)%beamletgroup(:)%tang_rad (float) (7.9.6.1.2)
angle (3079)	nbi%nbi_unit(:)%beamletgroup(:)%angle (float) (7.9.6.1.2)
direction (3079)	nbi%nbi_unit(:)%beamletgroup(:)%direction (integer) (7.9.6.1.3)
width_horiz (3079)	nbi%nbi_unit(:)%beamletgroup(:)%width_horiz (float) (7.9.6.1.2)
width_vert (3079)	nbi%nbi_unit(:)%beamletgroup(:)%width_vert (float) (7.9.6.1.2)
focussing (3079)	nbi%nbi_unit(:)%beamletgroup(:)%focussing (focussing) (7.9.6.1.227)
focal_len_hz (3221)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_hz (float) (7.9.6.1.2)
focal_len_vc (3221)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_vc (float) (7.9.6.1.2)
width_min_hz (3221)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_hz (float) (7.9.6.1.2)
width_min_vc (3221)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_vc (float) (7.9.6.1.2)
divergence (3079)	nbi%nbi_unit(:)%beamletgroup(:)%divergence (divergence) (7.9.6.1.191)
frac_divcomp (3185)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%frac_divcomp (vecflt_type) (7.9.6.1.18)
div_vert (3185)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_vert (vecflt_type) (7.9.6.1.18)
div_horiz (3185)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_horiz (vecflt_type) (7.9.6.1.18)
beamlets (3079)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets (beamlets) (7.9.6.1.86)
position (3080)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position (rzphi1D) (7.9.6.1.383)
r (3377)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%r (vecflt_type) (7.9.6.1.18)
z (3377)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%z (vecflt_type) (7.9.6.1.18)
phi (3377)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%phi (vecflt_type) (7.9.6.1.18)
tang_rad_blt (3080)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%tang_rad_blt (vecflt_type) (7.9.6.1.18)
angle_blt (3080)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%angle_blt (vecflt_type) (7.9.6.1.18)
pow_frc_blt (3080)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%pow_frc_blt (vecflt_type) (7.9.6.1.18)
wall (3299)	nbi%nbi_unit(:)%wall (nbi_nbi_unit_wall) (7.9.6.1.303)
surface (3297)	nbi%nbi_unit(:)%wall%surface (nbi_nbi_unit_wall_surface) (7.9.6.1.304)
triangle (3298)	nbi%nbi_unit(:)%wall%surface%triangle(:) (trianglexyz) (7.9.6.1.484)
point1 (3478)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%z (float) (7.9.6.1.2)
point2 (3478)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%z (float) (7.9.6.1.2)

point3 (3478)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%z (float) (7.9.6.1.2)
rectangle (3298)	nbi%nbi_unit(:)%wall%surface%rectangle(:) (rectanglexyz) (7.9.6.1.364)
point01 (3358)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%z (float) (7.9.6.1.2)
point11 (3358)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%z (float) (7.9.6.1.2)
point10 (3358)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%z (float) (7.9.6.1.2)
collimator (3297)	nbi%nbi_unit(:)%wall%collimator(:) (flat_polygon) (7.9.6.1.221)
origin (3215)	nbi%nbi_unit(:)%wall%collimator(:)%origin (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%collimator(:)%origin%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%collimator(:)%origin%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%collimator(:)%origin%z (float) (7.9.6.1.2)
basis1 (3215)	nbi%nbi_unit(:)%wall%collimator(:)%basis1 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%z (float) (7.9.6.1.2)
basis2 (3215)	nbi%nbi_unit(:)%wall%collimator(:)%basis2 (xyz0D) (7.9.6.1.527)
x (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%x (float) (7.9.6.1.2)
y (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%y (float) (7.9.6.1.2)
z (3521)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%z (float) (7.9.6.1.2)
coord1 (3215)	nbi%nbi_unit(:)%wall%collimator(:)%coord1 (vecflt_type) (7.9.6.1.18)
coord2 (3215)	nbi%nbi_unit(:)%wall%collimator(:)%coord2 (vecflt_type) (7.9.6.1.18)
codeparam (3299)	nbi%nbi_unit(:)%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	nbi%nbi_unit(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	nbi%nbi_unit(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	nbi%nbi_unit(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	nbi%nbi_unit(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	nbi%nbi_unit(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3047)	nbi%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	nbi%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	nbi%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	nbi%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	nbi%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	nbi%codeparam%output_flag (integer) (7.9.6.1.3)
time (3047)	nbi%time (float) (7.9.6.1.2)

7.9.6.2.32 neoclassic

datainfo (3048)	neoclassic%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	neoclassic%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	neoclassic%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	neoclassic%datainfo%source (string) (7.9.6.1.4)
comment (3148)	neoclassic%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	neoclassic%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	neoclassic%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	neoclassic%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	neoclassic%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	neoclassic%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	neoclassic%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	neoclassic%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	neoclassic%datainfo%whatref%run (integer) (7.9.6.1.3)

occurrence (3518)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	neoclassic%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	neoclassic%datainfo%putinfo%rights (string) (7.9.6.1.4)
rho_tor_norm (3048)	neoclassic%rho_tor_norm (vecflt_type) (7.9.6.1.18)
rho_tor (3048)	neoclassic%rho_tor (vecflt_type) (7.9.6.1.18)
composition (3048)	neoclassic%composition (composition) (7.9.6.1.116)
amn (3110)	neoclassic%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	neoclassic%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	neoclassic%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	neoclassic%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	neoclassic%composition%label (vecstring_type) (7.9.6.1.20)
desc_impur (3048)	neoclassic%desc_impur (desc_impur) (7.9.6.1.156)
amn (3150)	neoclassic%desc_impur%amn (vecflt_type) (7.9.6.1.18)
zn (3150)	neoclassic%desc_impur%zn (vecint_type) (7.9.6.1.19)
i_ion (3150)	neoclassic%desc_impur%i_ion (vecint_type) (7.9.6.1.19)
nzimp (3150)	neoclassic%desc_impur%nzimp (vecint_type) (7.9.6.1.19)
zmin (3150)	neoclassic%desc_impur%zmin (matint_type) (7.9.6.1.16)
zmax (3150)	neoclassic%desc_impur%zmax (matint_type) (7.9.6.1.16)
label (3150)	neoclassic%desc_impur%label (vecstring_type) (7.9.6.1.20)
compositions (3048)	neoclassic%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	neoclassic%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	neoclassic%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	neoclassic%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	neoclassic%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	neoclassic%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	neoclassic%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	neoclassic%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	neoclassic%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	neoclassic%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	neoclassic%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	neoclassic%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	neoclassic%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	neoclassic%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	neoclassic%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	neoclassic%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	neoclassic%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	neoclassic%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	neoclassic%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	neoclassic%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	neoclassic%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	neoclassic%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	neoclassic%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	neoclassic%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	neoclassic%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	neoclassic%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	neoclassic%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	neoclassic%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	neoclassic%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	neoclassic%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	neoclassic%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	neoclassic%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	neoclassic%compositions%signature%description (string) (7.9.6.1.4)
ni_neo (3048)	neoclassic%ni_neo (transcoefion) (7.9.6.1.481)
diff_eff (3475)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3475)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3475)	neoclassic%ni_neo%exchange (matflt_type) (7.9.6.1.15)

qgi (3475)	neoclassic%ni_neo%qgi (matflt_type) (7.9.6.1.15)
flux (3475)	neoclassic%ni_neo%flux (matflt_type) (7.9.6.1.15)
off_diagonal (3475)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.6.1.320)
d_ni (3314)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.6.1.7)
d_ti (3314)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.6.1.7)
d_ne (3314)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.6.1.15)
d_te (3314)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.6.1.15)
d_epar (3314)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.6.1.15)
d_mtor (3314)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.6.1.15)
flag (3475)	neoclassic%ni_neo%flag (integer) (7.9.6.1.3)
ne_neo (3048)	neoclassic%ne_neo (transcoefel) (7.9.6.1.479)
diff_eff (3473)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.6.1.18)
vconv_eff (3473)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.6.1.18)
flux (3473)	neoclassic%ne_neo%flux (vecflt_type) (7.9.6.1.18)
off_diagonal (3473)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.6.1.319)
d_ni (3313)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.6.1.15)
d_ti (3313)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.6.1.15)
d_ne (3313)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.6.1.18)
d_te (3313)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.6.1.18)
d_epar (3313)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.6.1.18)
d_mtor (3313)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.6.1.18)
flag (3473)	neoclassic%ne_neo%flag (integer) (7.9.6.1.3)
nz_neo (3048)	neoclassic%nz_neo(:) (transcoefimp) (7.9.6.1.480)
diff_eff (3474)	neoclassic%nz_neo(:)%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3474)	neoclassic%nz_neo(:)%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3474)	neoclassic%nz_neo(:)%exchange (matflt_type) (7.9.6.1.15)
flux (3474)	neoclassic%nz_neo(:)%flux (matflt_type) (7.9.6.1.15)
flag (3474)	neoclassic%nz_neo(:)%flag (integer) (7.9.6.1.3)
ti_neo (3048)	neoclassic%ti_neo (transcoefion) (7.9.6.1.481)
diff_eff (3475)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3475)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3475)	neoclassic%ti_neo%exchange (matflt_type) (7.9.6.1.15)
qgi (3475)	neoclassic%ti_neo%qgi (matflt_type) (7.9.6.1.15)
flux (3475)	neoclassic%ti_neo%flux (matflt_type) (7.9.6.1.15)
off_diagonal (3475)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.6.1.320)
d_ni (3314)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.6.1.7)
d_ti (3314)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.6.1.7)
d_ne (3314)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.6.1.15)
d_te (3314)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.6.1.15)
d_epar (3314)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.6.1.15)
d_mtor (3314)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.6.1.15)
flag (3475)	neoclassic%ti_neo%flag (integer) (7.9.6.1.3)
te_neo (3048)	neoclassic%te_neo (transcoefel) (7.9.6.1.479)
diff_eff (3473)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.6.1.18)
vconv_eff (3473)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.6.1.18)
flux (3473)	neoclassic%te_neo%flux (vecflt_type) (7.9.6.1.18)
off_diagonal (3473)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.6.1.319)
d_ni (3313)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.6.1.15)
d_ti (3313)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.6.1.15)
d_ne (3313)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.6.1.18)
d_te (3313)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.6.1.18)
d_epar (3313)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.6.1.18)
d_mtor (3313)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.6.1.18)
flag (3473)	neoclassic%te_neo%flag (integer) (7.9.6.1.3)
tz_neo (3048)	neoclassic%tz_neo(:) (transcoefimp) (7.9.6.1.480)
diff_eff (3474)	neoclassic%tz_neo(:)%diff_eff (matflt_type) (7.9.6.1.15)
vconv_eff (3474)	neoclassic%tz_neo(:)%vconv_eff (matflt_type) (7.9.6.1.15)
exchange (3474)	neoclassic%tz_neo(:)%exchange (matflt_type) (7.9.6.1.15)
flux (3474)	neoclassic%tz_neo(:)%flux (matflt_type) (7.9.6.1.15)
flag (3474)	neoclassic%tz_neo(:)%flag (integer) (7.9.6.1.3)
mtor_neo (3048)	neoclassic%mtor_neo (transcoefel) (7.9.6.1.479)

diff_eff (3473)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.6.1.18)
vconv_eff (3473)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.6.1.18)
flux (3473)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.6.1.18)
off_diagonal (3473)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.6.1.319)
d_ni (3313)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.6.1.15)
d_ti (3313)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.6.1.15)
d_ne (3313)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.6.1.18)
d_te (3313)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.6.1.18)
d_epar (3313)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.6.1.18)
d_mtor (3313)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.6.1.18)
flag (3473)	neoclassic%mtor_neo%flag (integer) (7.9.6.1.3)
sigma (3048)	neoclassic%sigma (vecflt_type) (7.9.6.1.18)
jboot (3048)	neoclassic%jboot (vecflt_type) (7.9.6.1.18)
er (3048)	neoclassic%er (vecflt_type) (7.9.6.1.18)
vpol (3048)	neoclassic%vpol (matflt_type) (7.9.6.1.15)
vtor (3048)	neoclassic%vtor (matflt_type) (7.9.6.1.15)
mach (3048)	neoclassic%mach (matflt_type) (7.9.6.1.15)
utheta_e (3048)	neoclassic%utheta_e (vecflt_type) (7.9.6.1.18)
utheta_i (3048)	neoclassic%utheta_i (matflt_type) (7.9.6.1.15)
fext (3048)	neoclassic%fext (array3dflt_type) (7.9.6.1.7)
jext (3048)	neoclassic%jext (vecflt_type) (7.9.6.1.18)
time (3048)	neoclassic%time (float) (7.9.6.1.2)
codeparam (3048)	neoclassic%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	neoclassic%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	neoclassic%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	neoclassic%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	neoclassic%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	neoclassic%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.33 ntm

datainfo (3049)	ntm%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	ntm%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	ntm%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	ntm%datainfo%source (string) (7.9.6.1.4)
comment (3148)	ntm%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	ntm%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	ntm%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	ntm%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	ntm%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	ntm%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	ntm%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	ntm%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	ntm%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	ntm%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	ntm%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	ntm%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	ntm%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	ntm%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	ntm%datainfo%putinfo%rights (string) (7.9.6.1.4)
mode (3049)	ntm%mode(:) (ntm_mode) (7.9.6.1.311)
onset (3305)	ntm%mode(:)%onset (ntm_mode_onset) (7.9.6.1.316)
w (3310)	ntm%mode(:)%onset%w (float) (7.9.6.1.2)
time_onset (3310)	ntm%mode(:)%onset%time_onset (float) (7.9.6.1.2)
time_offset (3310)	ntm%mode(:)%onset%time_offset (float) (7.9.6.1.2)
phase (3310)	ntm%mode(:)%onset%phase (float) (7.9.6.1.2)
n (3310)	ntm%mode(:)%onset%n (integer) (7.9.6.1.3)
m (3310)	ntm%mode(:)%onset%m (integer) (7.9.6.1.3)
description (3310)	ntm%mode(:)%onset%description (string) (7.9.6.1.4)
full_evol (3305)	ntm%mode(:)%full_evol (ntm_mode_full_evol) (7.9.6.1.314)
time_evol (3308)	ntm%mode(:)%full_evol%time_evol (vecflt_type) (7.9.6.1.18)

w (3308)	ntm%mode(:)%full_evol%w (vecflt_type) (7.9.6.1.18)
dwdt (3308)	ntm%mode(:)%full_evol%dwdt (vecflt_type) (7.9.6.1.18)
phase (3308)	ntm%mode(:)%full_evol%phase (vecflt_type) (7.9.6.1.18)
dphasedt (3308)	ntm%mode(:)%full_evol%dphasedt (vecflt_type) (7.9.6.1.18)
frequency (3308)	ntm%mode(:)%full_evol%frequency (vecflt_type) (7.9.6.1.18)
dfrequencydt (3308)	ntm%mode(:)%full_evol%dfrequencydt (vecflt_type) (7.9.6.1.18)
island (3308)	ntm%mode(:)%full_evol%island (ntm_mode_full_evol_island) (7.9.6.1.315)
geometry (3309)	ntm%mode(:)%full_evol%island%geometry (matflt_type) (7.9.6.1.15)
coord_values (3309)	ntm%mode(:)%full_evol%island%coord_values (matflt_type) (7.9.6.1.15)
coord_desc (3309)	ntm%mode(:)%full_evol%island%coord_desc (string) (7.9.6.1.4)
n (3308)	ntm%mode(:)%full_evol%n (integer) (7.9.6.1.3)
m (3308)	ntm%mode(:)%full_evol%m (integer) (7.9.6.1.3)
deltaw_value (3308)	ntm%mode(:)%full_evol%deltaw_value (matflt_type) (7.9.6.1.15)
deltaw_name (3308)	ntm%mode(:)%full_evol%deltaw_name (vecstring_type) (7.9.6.1.20)
torque_value (3308)	ntm%mode(:)%full_evol%torque_value (matflt_type) (7.9.6.1.15)
torque_name (3308)	ntm%mode(:)%full_evol%torque_name (vecstring_type) (7.9.6.1.20)
delta_diff (3308)	ntm%mode(:)%full_evol%delta_diff (matflt_type) (7.9.6.1.15)
description (3308)	ntm%mode(:)%full_evol%description (string) (7.9.6.1.4)
rho_tor (3308)	ntm%mode(:)%full_evol%rho_tor (vecflt_type) (7.9.6.1.18)
evolution (3305)	ntm%mode(:)%evolution (ntm_mode_evolution) (7.9.6.1.312)
w (3306)	ntm%mode(:)%evolution%w (float) (7.9.6.1.2)
dwdt (3306)	ntm%mode(:)%evolution%dwdt (float) (7.9.6.1.2)
phase (3306)	ntm%mode(:)%evolution%phase (float) (7.9.6.1.2)
dphasedt (3306)	ntm%mode(:)%evolution%dphasedt (float) (7.9.6.1.2)
frequency (3306)	ntm%mode(:)%evolution%frequency (float) (7.9.6.1.2)
dfrequencydt (3306)	ntm%mode(:)%evolution%dfrequencydt (float) (7.9.6.1.2)
island (3306)	ntm%mode(:)%evolution%island (ntm_mode_evolution_island) (7.9.6.1.313)
geometry (3307)	ntm%mode(:)%evolution%island%geometry (vecflt_type) (7.9.6.1.18)
coord_values (3307)	ntm%mode(:)%evolution%island%coord_values (vecflt_type) (7.9.6.1.18)
coord_desc (3307)	ntm%mode(:)%evolution%island%coord_desc (string) (7.9.6.1.4)
n (3306)	ntm%mode(:)%evolution%n (integer) (7.9.6.1.3)
m (3306)	ntm%mode(:)%evolution%m (integer) (7.9.6.1.3)
deltaw_value (3306)	ntm%mode(:)%evolution%deltaw_value (vecflt_type) (7.9.6.1.18)
deltaw_name (3306)	ntm%mode(:)%evolution%deltaw_name (vecstring_type) (7.9.6.1.20)
torque_value (3306)	ntm%mode(:)%evolution%torque_value (vecflt_type) (7.9.6.1.18)
torque_name (3306)	ntm%mode(:)%evolution%torque_name (vecstring_type) (7.9.6.1.20)
delta_diff (3306)	ntm%mode(:)%evolution%delta_diff (vecflt_type) (7.9.6.1.18)
description (3306)	ntm%mode(:)%evolution%description (string) (7.9.6.1.4)
rho_tor (3306)	ntm%mode(:)%evolution%rho_tor (float) (7.9.6.1.2)
time (3049)	ntm%time (float) (7.9.6.1.2)
codeparam (3049)	ntm%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	ntm%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	ntm%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	ntm%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	ntm%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	ntm%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.34 orbit

datainfo (3050)	orbit%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	orbit%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	orbit%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	orbit%datainfo%source (string) (7.9.6.1.4)
comment (3148)	orbit%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	orbit%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	orbit%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	orbit%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	orbit%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	orbit%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	orbit%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	orbit%datainfo%whatref%shot (integer) (7.9.6.1.3)

run (3518)	orbit%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	orbit%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	orbit%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	orbit%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	orbit%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	orbit%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	orbit%datainfo%putinfo%rights (string) (7.9.6.1.4)
com (3050)	orbit%com (com) (7.9.6.1.102)
amn (3096)	orbit%com%amn (float) (7.9.6.1.2)
zion (3096)	orbit%com%zion (float) (7.9.6.1.2)
energy (3096)	orbit%com%energy (vecflt_type) (7.9.6.1.18)
magn_mom (3096)	orbit%com%magn_mom (vecflt_type) (7.9.6.1.18)
p_phi (3096)	orbit%com%p_phi (vecflt_type) (7.9.6.1.18)
sigma (3096)	orbit%com%sigma (vecint_type) (7.9.6.1.19)
trace (3050)	orbit%trace (trace) (7.9.6.1.478)
time_orb (3472)	orbit%trace%time_orb (matflt_type) (7.9.6.1.15)
ntorb (3472)	orbit%trace%ntorb (vecint_type) (7.9.6.1.19)
r (3472)	orbit%trace%r (matflt_type) (7.9.6.1.15)
z (3472)	orbit%trace%z (matflt_type) (7.9.6.1.15)
phi (3472)	orbit%trace%phi (matflt_type) (7.9.6.1.15)
psi (3472)	orbit%trace%psi (matflt_type) (7.9.6.1.15)
theta_b (3472)	orbit%trace%theta_b (matflt_type) (7.9.6.1.15)
v_parallel (3472)	orbit%trace%v_parallel (matflt_type) (7.9.6.1.15)
v_perp (3472)	orbit%trace%v_perp (matflt_type) (7.9.6.1.15)
global_param (3050)	orbit%global_param (orbit_global_param) (7.9.6.1.322)
orbit_type (3316)	orbit%global_param%orbit_type (vecint_type) (7.9.6.1.19)
omega_b (3316)	orbit%global_param%omega_b (vecflt_type) (7.9.6.1.18)
omega_phi (3316)	orbit%global_param%omega_phi (vecflt_type) (7.9.6.1.18)
omega_c_av (3316)	orbit%global_param%omega_c_av (vecflt_type) (7.9.6.1.18)
special_pos (3316)	orbit%global_param%special_pos (orbit_special_pos) (7.9.6.1.325)
midplane (3319)	orbit%global_param%special_pos%midplane (orbit_midplane) (7.9.6.1.323)
outer (3317)	orbit%global_param%special_pos%midplane%outer (orbit_pos) (7.9.6.1.324)
r (3318)	orbit%global_param%special_pos%midplane%outer%r (vecflt_type) (7.9.6.1.18)
z (3318)	orbit%global_param%special_pos%midplane%outer%z (vecflt_type) (7.9.6.1.18)
phi (3318)	orbit%global_param%special_pos%midplane%outer%phi (vecflt_type) (7.9.6.1.18)
psi (3318)	orbit%global_param%special_pos%midplane%outer%psi (vecflt_type) (7.9.6.1.18)
theta_b (3318)	orbit%global_param%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.6.1.18)
inner (3317)	orbit%global_param%special_pos%midplane%inner (orbit_pos) (7.9.6.1.324)
r (3318)	orbit%global_param%special_pos%midplane%inner%r (vecflt_type) (7.9.6.1.18)
z (3318)	orbit%global_param%special_pos%midplane%inner%z (vecflt_type) (7.9.6.1.18)
phi (3318)	orbit%global_param%special_pos%midplane%inner%phi (vecflt_type) (7.9.6.1.18)
psi (3318)	orbit%global_param%special_pos%midplane%inner%psi (vecflt_type) (7.9.6.1.18)
theta_b (3318)	orbit%global_param%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.6.1.18)
turning_pts (3319)	orbit%global_param%special_pos%turning_pts (orbit_turning_pts) (7.9.6.1.326)
upper (3320)	orbit%global_param%special_pos%turning_pts%upper (orbit_pos) (7.9.6.1.324)
r (3318)	orbit%global_param%special_pos%turning_pts%upper%r (vecflt_type) (7.9.6.1.18)
z (3318)	orbit%global_param%special_pos%turning_pts%upper%z (vecflt_type) (7.9.6.1.18)
phi (3318)	orbit%global_param%special_pos%turning_pts%upper%phi (vecflt_type) (7.9.6.1.18)
psi (3318)	orbit%global_param%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.6.1.18)
theta_b (3318)	orbit%global_param%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.6.1.18)
lower (3320)	orbit%global_param%special_pos%turning_pts%lower (orbit_pos) (7.9.6.1.324)
r (3318)	orbit%global_param%special_pos%turning_pts%lower%r (vecflt_type) (7.9.6.1.18)
z (3318)	orbit%global_param%special_pos%turning_pts%lower%z (vecflt_type) (7.9.6.1.18)
phi (3318)	orbit%global_param%special_pos%turning_pts%lower%phi (vecflt_type) (7.9.6.1.18)
psi (3318)	orbit%global_param%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.6.1.18)
theta_b (3318)	orbit%global_param%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.6.1.18)
codeparam (3050)	orbit%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	orbit%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	orbit%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	orbit%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	orbit%codeparam%output_diag (string) (7.9.6.1.4)

output_flag (3092)	orbit%codeparam%output_flag (integer) (7.9.6.1.3)
time (3050)	orbit%time (float) (7.9.6.1.2)

7.9.6.2.35 pellets

datainfo (3051)	pellets%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	pellets%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	pellets%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	pellets%datainfo%source (string) (7.9.6.1.4)
comment (3148)	pellets%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	pellets%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	pellets%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	pellets%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	pellets%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	pellets%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	pellets%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	pellets%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	pellets%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	pellets%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	pellets%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	pellets%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	pellets%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	pellets%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	pellets%datainfo%putinfo%rights (string) (7.9.6.1.4)
compositions (3051)	pellets%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	pellets%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	pellets%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	pellets%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	pellets%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	pellets%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	pellets%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	pellets%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	pellets%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	pellets%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	pellets%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	pellets%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	pellets%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	pellets%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	pellets%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	pellets%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	pellets%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	pellets%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	pellets%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	pellets%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	pellets%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	pellets%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	pellets%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	pellets%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	pellets%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	pellets%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	pellets%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	pellets%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	pellets%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	pellets%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	pellets%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	pellets%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	pellets%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	pellets%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	pellets%compositions%signature%description (string) (7.9.6.1.4)
pellet (3051)	pellets%pellet(:) (pellet) (7.9.6.1.330)

shape (3324)	pellets%pellet(:)%shape (pellet_shape) (7.9.6.1.337)
type (3331)	pellets%pellet(:)%shape%type (identifier) (7.9.6.1.254)
id (3248)	pellets%pellet(:)%shape%type%id (string) (7.9.6.1.4)
flag (3248)	pellets%pellet(:)%shape%type%flag (integer) (7.9.6.1.3)
description (3248)	pellets%pellet(:)%shape%type%description (string) (7.9.6.1.4)
dimensions (3331)	pellets%pellet(:)%shape%dimensions (vecflt_type) (7.9.6.1.18)
elements (3324)	pellets%pellet(:)%elements (pellet_elements) (7.9.6.1.333)
nucindex (3327)	pellets%pellet(:)%elements%nucindex (vecint_type) (7.9.6.1.19)
density (3327)	pellets%pellet(:)%elements%density (vecflt_type) (7.9.6.1.18)
fraction (3327)	pellets%pellet(:)%elements%fraction (vecflt_type) (7.9.6.1.18)
subl_energy (3327)	pellets%pellet(:)%elements%subl_energy (vecflt_type) (7.9.6.1.18)
geometry (3324)	pellets%pellet(:)%geometry (pellet_geometry) (7.9.6.1.334)
pivot_point (3328)	pellets%pellet(:)%geometry%pivot_point (rzphi0D) (7.9.6.1.382)
r (3376)	pellets%pellet(:)%geometry%pivot_point%r (float) (7.9.6.1.2)
z (3376)	pellets%pellet(:)%geometry%pivot_point%z (float) (7.9.6.1.2)
phi (3376)	pellets%pellet(:)%geometry%pivot_point%phi (float) (7.9.6.1.2)
second_point (3328)	pellets%pellet(:)%geometry%second_point (rzphi0D) (7.9.6.1.382)
r (3376)	pellets%pellet(:)%geometry%second_point%r (float) (7.9.6.1.2)
z (3376)	pellets%pellet(:)%geometry%second_point%z (float) (7.9.6.1.2)
phi (3376)	pellets%pellet(:)%geometry%second_point%phi (float) (7.9.6.1.2)
velocity (3328)	pellets%pellet(:)%geometry%velocity (float) (7.9.6.1.2)
angles (3328)	pellets%pellet(:)%geometry%angles (pellet_angles) (7.9.6.1.331)
horizontal (3325)	pellets%pellet(:)%geometry%angles%horizontal (float) (7.9.6.1.2)
vertical (3325)	pellets%pellet(:)%geometry%angles%vertical (float) (7.9.6.1.2)
pathprofiles (3324)	pellets%pellet(:)%pathprofiles (pellet_pathprofiles) (7.9.6.1.336)
distance (3330)	pellets%pellet(:)%pathprofiles%distance (vecflt_type) (7.9.6.1.18)
rho_tor (3330)	pellets%pellet(:)%pathprofiles%rho_tor (vecflt_type) (7.9.6.1.18)
rho_pol (3330)	pellets%pellet(:)%pathprofiles%rho_pol (vecflt_type) (7.9.6.1.18)
velocity (3330)	pellets%pellet(:)%pathprofiles%velocity (vecflt_type) (7.9.6.1.18)
ne (3330)	pellets%pellet(:)%pathprofiles%ne (vecflt_type) (7.9.6.1.18)
te (3330)	pellets%pellet(:)%pathprofiles%te (vecflt_type) (7.9.6.1.18)
abl_rate (3330)	pellets%pellet(:)%pathprofiles%abl_rate (vecflt_type) (7.9.6.1.18)
abl_particles (3330)	pellets%pellet(:)%pathprofiles%abl_particles (vecflt_type) (7.9.6.1.18)
delta_drift (3330)	pellets%pellet(:)%pathprofiles%delta_drift (vecflt_type) (7.9.6.1.18)
position (3330)	pellets%pellet(:)%pathprofiles%position (rzphi1D) (7.9.6.1.383)
r (3377)	pellets%pellet(:)%pathprofiles%position%r (vecflt_type) (7.9.6.1.18)
z (3377)	pellets%pellet(:)%pathprofiles%position%z (vecflt_type) (7.9.6.1.18)
phi (3377)	pellets%pellet(:)%pathprofiles%position%phi (vecflt_type) (7.9.6.1.18)
deposition (3324)	pellets%pellet(:)%deposition (pellet_deposition) (7.9.6.1.332)
rho_tor (3326)	pellets%pellet(:)%deposition%rho_tor (vecflt_type) (7.9.6.1.18)
rho_pol (3326)	pellets%pellet(:)%deposition%rho_pol (vecflt_type) (7.9.6.1.18)
delta_ne (3326)	pellets%pellet(:)%deposition%delta_ne (vecflt_type) (7.9.6.1.18)
delta_te (3326)	pellets%pellet(:)%deposition%delta_te (vecflt_type) (7.9.6.1.18)
delta_ni (3326)	pellets%pellet(:)%deposition%delta_ni (matflt_type) (7.9.6.1.15)
delta_ti (3326)	pellets%pellet(:)%deposition%delta_ti (matflt_type) (7.9.6.1.15)
delta_vtor (3326)	pellets%pellet(:)%deposition%delta_vtor (matflt_type) (7.9.6.1.15)
impurity (3326)	pellets%pellet(:)%deposition%impurity(:) (pellet_impurity) (7.9.6.1.335)
delta_nz (3329)	pellets%pellet(:)%deposition%impurity(:)%delta_nz (matflt_type) (7.9.6.1.15)
codeparam (3051)	pellets%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	pellets%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	pellets%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	pellets%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	pellets%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	pellets%codeparam%output_flag (integer) (7.9.6.1.3)
time (3051)	pellets%time (float) (7.9.6.1.2)

7.9.6.2.36 pfsystems

datainfo (3052)	pfsystems%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	pfsystems%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	pfsystems%datainfo%putdate (string) (7.9.6.1.4)

source (3148)	pfsystems%datainfo%source (string) (7.9.6.1.4)
comment (3148)	pfsystems%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	pfsystems%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	pfsystems%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	pfsystems%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	pfsystems%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	pfsystems%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	pfsystems%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	pfsystems%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	pfsystems%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	pfsystems%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	pfsystems%datainfo%putinfo%rights (string) (7.9.6.1.4)
pfcoils (3052)	pfsystems%pfcoils (pfcoils) (7.9.6.1.340)
desc_pfcoils (3334)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.6.1.158)
name (3152)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.6.1.20)
id (3152)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.6.1.20)
res (3152)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.6.1.18)
emax (3152)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.6.1.18)
structure_cs (3152)	pfsystems%pfcoils%desc_pfcoils%structure_cs (structure_cs) (7.9.6.1.435)
gaptf (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%gaptf (float) (7.9.6.1.2)
ri (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%ri (float) (7.9.6.1.2)
re (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%re (float) (7.9.6.1.2)
jcable (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%jcable (float) (7.9.6.1.2)
current_nom (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%current_nom (float) (7.9.6.1.2)
sigma (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%sigma (float) (7.9.6.1.2)
tiso (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%tiso (float) (7.9.6.1.2)
nlay (3429)	pfsystems%pfcoils%desc_pfcoils%structure_cs%nlay (float) (7.9.6.1.2)
pol_flux_cs (3152)	pfsystems%pfcoils%desc_pfcoils%pol_flux_cs (float) (7.9.6.1.2)
nelement (3152)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.6.1.19)
pfelement (3152)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.6.1.341)
name (3335)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.6.1.20)
id (3335)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.6.1.20)
turnsign (3335)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.6.1.15)
area (3335)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.6.1.15)
pfgeometry (3335)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.6.1.342)
type (3336)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.6.1.16)
npoints (3336)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.6.1.16)
rzcoordinate (3336)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.6.1.381)
r (3375)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.6.1.7)
z (3375)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.6.1.7)
rzdrdz (3336)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.6.1.7)
coilcurrent (3334)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.6.1.18)
coilvoltage (3334)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.6.1.18)
p_cryo (3334)	pfsystems%pfcoils%p_cryo (float) (7.9.6.1.2)
p_nh (3334)	pfsystems%pfcoils%p_nh (vecflt_type) (7.9.6.1.18)
pfpassive (3052)	pfsystems%pfpassive (pfpassive) (7.9.6.1.344)
name (3338)	pfsystems%pfpassive%name (vecstring_type) (7.9.6.1.20)
area (3338)	pfsystems%pfpassive%area (vecflt_type) (7.9.6.1.18)
res (3338)	pfsystems%pfpassive%res (vecflt_type) (7.9.6.1.18)

eta (3338)	pfsystems%pfpassive%eta (vecflt_type) (7.9.6.1.18)
current (3338)	pfsystems%pfpassive%current (pfpassive_current) (7.9.6.1.345)
toroidal (3339)	pfsystems%pfpassive%current%toroidal (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfpassive%current%toroidal%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfpassive%current%toroidal%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfpassive%current%toroidal%relerror (vecflt_type) (7.9.6.1.18)
poloidal (3339)	pfsystems%pfpassive%current%poloidal (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfpassive%current%poloidal%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfpassive%current%poloidal%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfpassive%current%poloidal%relerror (vecflt_type) (7.9.6.1.18)
pfpageometry (3338)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.6.1.343)
type (3337)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.6.1.19)
npoints (3337)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.6.1.19)
rzcoordinate (3337)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.6.1.380)
r (3374)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.6.1.15)
z (3374)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.6.1.15)
rzdrdz (3337)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.6.1.15)
pfcircuits (3052)	pfsystems%pfcircuits (pfcircuits) (7.9.6.1.339)
name (3333)	pfsystems%pfcircuits%name (vecstring_type) (7.9.6.1.20)
id (3333)	pfsystems%pfcircuits%id (vecstring_type) (7.9.6.1.20)
type (3333)	pfsystems%pfcircuits%type (vecstring_type) (7.9.6.1.20)
nnodes (3333)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.6.1.19)
connections (3333)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.6.1.8)
pfsupplies (3052)	pfsystems%pfsupplies (pfsupplies) (7.9.6.1.346)
desc_supply (3340)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.6.1.159)
name (3153)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.6.1.20)
id (3153)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.6.1.20)
type (3153)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.6.1.20)
delay (3153)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.6.1.18)
filter (3153)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.6.1.220)
num (3214)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.6.1.15)
den (3214)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.6.1.15)
imin (3153)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.6.1.18)
imax (3153)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.6.1.18)
res (3153)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.6.1.18)
umin (3153)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.6.1.18)
umax (3153)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.6.1.18)
emax (3153)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.6.1.18)
voltage (3340)	pfsystems%pfsupplies%voltage (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.6.1.18)
current (3340)	pfsystems%pfsupplies%current (exp1D) (7.9.6.1.216)
value (3210)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3052)	pfsystems%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	pfsystems%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	pfsystems%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	pfsystems%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	pfsystems%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	pfsystems%codeparam%output_flag (integer) (7.9.6.1.3)
time (3052)	pfsystems%time (float) (7.9.6.1.2)

7.9.6.2.37 polardiag

datainfo (3267)	lineintegraldiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	lineintegraldiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	lineintegraldiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	lineintegraldiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	lineintegraldiag%datainfo%comment (string) (7.9.6.1.4)

cocos (3148)	lineintegraldiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	lineintegraldiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	lineintegraldiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	lineintegraldiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	lineintegraldiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
expression (3267)	lineintegraldiag%expression (string) (7.9.6.1.4)
setup_line (3267)	lineintegraldiag%setup_line (setup_line) (7.9.6.1.414)
pivot_point (3408)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.6.1.18)
horchordang1 (3408)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.6.1.18)
verchordang1 (3408)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.6.1.18)
width (3408)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.6.1.18)
second_point (3408)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.6.1.18)
horchordang2 (3408)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.6.1.18)
verchordang2 (3408)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.6.1.18)
third_point (3408)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.6.1.383)
r (3377)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.6.1.18)
z (3377)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.6.1.18)
phi (3377)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.6.1.18)
nchordpoints (3408)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.6.1.3)
measure (3267)	lineintegraldiag%measure (exp1D) (7.9.6.1.216)
value (3210)	lineintegraldiag%measure%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3267)	lineintegraldiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	lineintegraldiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	lineintegraldiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	lineintegraldiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	lineintegraldiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	lineintegraldiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3267)	lineintegraldiag%time (float) (7.9.6.1.2)

7.9.6.2.38 power_conv

datainfo (3054)	power_conv%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	power_conv%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	power_conv%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	power_conv%datainfo%source (string) (7.9.6.1.4)
comment (3148)	power_conv%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	power_conv%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	power_conv%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	power_conv%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	power_conv%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	power_conv%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	power_conv%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	power_conv%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	power_conv%datainfo%whatref%run (integer) (7.9.6.1.3)

occurrence (3518)	power_conv%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	power_conv%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	power_conv%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	power_conv%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	power_conv%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	power_conv%datainfo%putinfo%rights (string) (7.9.6.1.4)
cycle_type (3054)	power_conv%cycle_type (string) (7.9.6.1.4)
circuits (3054)	power_conv%circuits(:) (circuits) (7.9.6.1.95)
component (3089)	power_conv%circuits(:)%component(:) (power_conv_component) (7.9.6.1.354)
name (3348)	power_conv%circuits(:)%component(:)%name (string) (7.9.6.1.4)
temp_in (3348)	power_conv%circuits(:)%component(:)%temp_in (float) (7.9.6.1.2)
temp_out (3348)	power_conv%circuits(:)%component(:)%temp_out (float) (7.9.6.1.2)
press_in (3348)	power_conv%circuits(:)%component(:)%press_in (float) (7.9.6.1.2)
press_out (3348)	power_conv%circuits(:)%component(:)%press_out (float) (7.9.6.1.2)
power (3348)	power_conv%circuits(:)%component(:)%power (float) (7.9.6.1.2)
flow (3348)	power_conv%circuits(:)%component(:)%flow (float) (7.9.6.1.2)
power_net (3089)	power_conv%circuits(:)%power_net (float) (7.9.6.1.2)
power_int (3089)	power_conv%circuits(:)%power_int (float) (7.9.6.1.2)
efficiency (3089)	power_conv%circuits(:)%efficiency (float) (7.9.6.1.2)
power_recirc (3054)	power_conv%power_recirc (float) (7.9.6.1.2)
power_net (3054)	power_conv%power_net (float) (7.9.6.1.2)
power_int (3054)	power_conv%power_int (float) (7.9.6.1.2)
efficiency (3054)	power_conv%efficiency (float) (7.9.6.1.2)
codeparam (3054)	power_conv%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	power_conv%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	power_conv%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	power_conv%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	power_conv%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	power_conv%codeparam%output_flag (integer) (7.9.6.1.3)
time (3054)	power_conv%time (float) (7.9.6.1.2)

7.9.6.2.39 reflectomet

datainfo (3055)	reflectomet%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	reflectomet%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	reflectomet%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	reflectomet%datainfo%source (string) (7.9.6.1.4)
comment (3148)	reflectomet%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	reflectomet%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	reflectomet%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	reflectomet%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	reflectomet%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	reflectomet%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	reflectomet%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	reflectomet%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	reflectomet%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	reflectomet%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	reflectomet%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	reflectomet%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	reflectomet%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	reflectomet%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	reflectomet%datainfo%putinfo%rights (string) (7.9.6.1.4)
refl_receive (3055)	reflectomet%refl_receive(:) (refl_receive) (7.9.6.1.367)
name (3361)	reflectomet%refl_receive(:)%name (string) (7.9.6.1.4)
raw_signal (3361)	reflectomet%refl_receive(:)%raw_signal (t_series_real) (7.9.6.1.437)
time_wind (3431)	reflectomet%refl_receive(:)%raw_signal%time_wind (vecflt_type) (7.9.6.1.18)
values (3431)	reflectomet%refl_receive(:)%raw_signal%values (vecflt_type) (7.9.6.1.18)
io_signal (3361)	reflectomet%refl_receive(:)%io_signal (t_series_real) (7.9.6.1.437)
time_wind (3431)	reflectomet%refl_receive(:)%io_signal%time_wind (vecflt_type) (7.9.6.1.18)
values (3431)	reflectomet%refl_receive(:)%io_signal%values (vecflt_type) (7.9.6.1.18)
iq_receiver (3361)	reflectomet%refl_receive(:)%iq_receiver (t_series_cplx) (7.9.6.1.436)

time_wind (3430)	reflectomet%refl_receive(:)%iq_receiver%time_wind (vecflt_type) (7.9.6.1.18)
values_re (3430)	reflectomet%refl_receive(:)%iq_receiver%values_re (vecflt_type) (7.9.6.1.18)
values_im (3430)	reflectomet%refl_receive(:)%iq_receiver%values_im (vecflt_type) (7.9.6.1.18)
antenna_ind (3361)	reflectomet%refl_receive(:)%antenna_ind (integer) (7.9.6.1.3)
antennas (3055)	reflectomet%antennas(:) (reflectometry_antennas) (7.9.6.1.368)
name (3362)	reflectomet%antennas(:)%name (string) (7.9.6.1.4)
type (3362)	reflectomet%antennas(:)%type (identifier) (7.9.6.1.254)
id (3248)	reflectomet%antennas(:)%type%id (string) (7.9.6.1.4)
flag (3248)	reflectomet%antennas(:)%type%flag (integer) (7.9.6.1.3)
description (3248)	reflectomet%antennas(:)%type%description (string) (7.9.6.1.4)
origin (3362)	reflectomet%antennas(:)%origin (origin) (7.9.6.1.327)
refpos (3321)	reflectomet%antennas(:)%origin%refpos (rzphi0D) (7.9.6.1.382)
r (3376)	reflectomet%antennas(:)%origin%refpos%r (float) (7.9.6.1.2)
z (3376)	reflectomet%antennas(:)%origin%refpos%z (float) (7.9.6.1.2)
phi (3376)	reflectomet%antennas(:)%origin%refpos%phi (float) (7.9.6.1.2)
alpha (3321)	reflectomet%antennas(:)%origin%alpha (float) (7.9.6.1.2)
beta (3321)	reflectomet%antennas(:)%origin%beta (float) (7.9.6.1.2)
gamma (3321)	reflectomet%antennas(:)%origin%gamma (float) (7.9.6.1.2)
radfield (3362)	reflectomet%antennas(:)%radfield (reflectometry_radfield) (7.9.6.1.369)
type (3363)	reflectomet%antennas(:)%radfield%type (identifier) (7.9.6.1.254)
id (3248)	reflectomet%antennas(:)%radfield%type%id (string) (7.9.6.1.4)
flag (3248)	reflectomet%antennas(:)%radfield%type%flag (integer) (7.9.6.1.3)
description (3248)	reflectomet%antennas(:)%radfield%type%description (string) (7.9.6.1.4)
position (3363)	reflectomet%antennas(:)%radfield%position (vecflt_type) (7.9.6.1.18)
gaussian (3363)	reflectomet%antennas(:)%radfield%gaussian(:) (reflectometry_radfield_gaussian) (7.9.6.1.370)
aperture (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture (simp_apert) (7.9.6.1.418)
type (3412)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type (identifier) (7.9.6.1.254)
id (3248)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%id (string) (7.9.6.1.4)
flag (3248)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%flag (integer) (7.9.6.1.3)
description (3248)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%description (string) (7.9.6.1.4)
sizes (3412)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%sizes (vecflt_type) (7.9.6.1.18)
angle (3412)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%angle (float) (7.9.6.1.2)
waistsize (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%waistsize (vecflt_type) (7.9.6.1.18)
waistzpos (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%waistzpos (vecflt_type) (7.9.6.1.18)
tiltangle (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%tiltangle (vecflt_type) (7.9.6.1.18)
polar_angle (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%polar_angle (vecflt_type) (7.9.6.1.18)
frequency (3364)	reflectomet%antennas(:)%radfield%gaussian(:)%frequency (float) (7.9.6.1.2)
efield (3363)	reflectomet%antennas(:)%radfield%efield(:) (reflectometry_radifield_efield) (7.9.6.1.371)
grid2d (3365)	reflectomet%antennas(:)%radfield%efield(:)%grid2d (reggrid) (7.9.6.1.372)
dim1 (3366)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3366)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim2 (vecflt_type) (7.9.6.1.18)
e1 (3365)	reflectomet%antennas(:)%radfield%efield(:)%e1 (matcplx_type) (7.9.6.1.14)
e2 (3365)	reflectomet%antennas(:)%radfield%efield(:)%e2 (matcplx_type) (7.9.6.1.14)
frequency (3365)	reflectomet%antennas(:)%radfield%efield(:)%frequency (float) (7.9.6.1.2)
geometry (3362)	reflectomet%antennas(:)%geometry (float) (7.9.6.1.2)
launchsignal (3362)	reflectomet%antennas(:)%launchsignal (launchsignal) (7.9.6.1.270)
time_launch (3264)	reflectomet%antennas(:)%launchsignal%time_launch (vecflt_type) (7.9.6.1.18)
freq (3264)	reflectomet%antennas(:)%launchsignal%freq (vecflt_type) (7.9.6.1.18)
amplitude (3264)	reflectomet%antennas(:)%launchsignal%amplitude (vecflt_type) (7.9.6.1.18)
phase (3264)	reflectomet%antennas(:)%launchsignal%phase (vecflt_type) (7.9.6.1.18)
codeparam (3055)	reflectomet%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	reflectomet%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	reflectomet%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	reflectomet%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	reflectomet%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	reflectomet%codeparam%output_flag (integer) (7.9.6.1.3)
time (3055)	reflectomet%time (float) (7.9.6.1.2)

7.9.6.2.40 rfadiag

datainfo (3056)	rfadiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	rfadiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	rfadiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	rfadiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	rfadiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	rfadiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	rfadiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	rfadiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	rfadiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	rfadiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	rfadiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	rfadiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	rfadiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	rfadiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	rfadiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	rfadiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	rfadiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	rfadiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	rfadiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3056)	rfadiag%setup (rfasetup) (7.9.6.1.374)
position (3368)	rfadiag%setup%position (rzphi1Dexp) (7.9.6.1.384)
r (3378)	rfadiag%setup%position%r (exp1D) (7.9.6.1.216)
value (3210)	rfadiag%setup%position%r%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	rfadiag%setup%position%r%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	rfadiag%setup%position%r%relerror (vecflt_type) (7.9.6.1.18)
z (3378)	rfadiag%setup%position%z (exp1D) (7.9.6.1.216)
value (3210)	rfadiag%setup%position%z%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	rfadiag%setup%position%z%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	rfadiag%setup%position%z%relerror (vecflt_type) (7.9.6.1.18)
phi (3378)	rfadiag%setup%position%phi (exp1D) (7.9.6.1.216)
value (3210)	rfadiag%setup%position%phi%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	rfadiag%setup%position%phi%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	rfadiag%setup%position%phi%relerror (vecflt_type) (7.9.6.1.18)
measure (3056)	rfadiag%measure (rfameasure) (7.9.6.1.373)
ti (3367)	rfadiag%measure%ti (exp1D) (7.9.6.1.216)
value (3210)	rfadiag%measure%ti%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	rfadiag%measure%ti%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	rfadiag%measure%ti%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3056)	rfadiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	rfadiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	rfadiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	rfadiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	rfadiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	rfadiag%codeparam%output_flag (integer) (7.9.6.1.3)
time (3056)	rfadiag%time (float) (7.9.6.1.2)

7.9.6.2.41 sawteeth

datainfo (3057)	sawteeth%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	sawteeth%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	sawteeth%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	sawteeth%datainfo%source (string) (7.9.6.1.4)
comment (3148)	sawteeth%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	sawteeth%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	sawteeth%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	sawteeth%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	sawteeth%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	sawteeth%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	sawteeth%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	sawteeth%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	sawteeth%datainfo%whatref%run (integer) (7.9.6.1.3)

occurrence (3518)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	sawteeth%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	sawteeth%datainfo%putinfo%rights (string) (7.9.6.1.4)
crash_trig (3057)	sawteeth%crash_trig (integer) (7.9.6.1.3)
composition (3057)	sawteeth%composition (composition) (7.9.6.1.116)
amn (3110)	sawteeth%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	sawteeth%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	sawteeth%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	sawteeth%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	sawteeth%composition%label (vecstring_type) (7.9.6.1.20)
rho_tor_norm (3057)	sawteeth%rho_tor_norm (vecflt_type) (7.9.6.1.18)
rho_tor (3057)	sawteeth%rho_tor (vecflt_type) (7.9.6.1.18)
profiles1d (3057)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.6.1.390)
ne (3384)	sawteeth%profiles1d%ne (vecflt_type) (7.9.6.1.18)
ni (3384)	sawteeth%profiles1d%ni (matflt_type) (7.9.6.1.15)
te (3384)	sawteeth%profiles1d%te (vecflt_type) (7.9.6.1.18)
ti (3384)	sawteeth%profiles1d%ti (matflt_type) (7.9.6.1.15)
psi (3384)	sawteeth%profiles1d%psi (vecflt_type) (7.9.6.1.18)
phi (3384)	sawteeth%profiles1d%phi (vecflt_type) (7.9.6.1.18)
psistar (3384)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.6.1.18)
volume (3384)	sawteeth%profiles1d%volume (vecflt_type) (7.9.6.1.18)
q (3384)	sawteeth%profiles1d%q (vecflt_type) (7.9.6.1.18)
diags (3057)	sawteeth%diags (sawteeth_diags) (7.9.6.1.389)
shear1 (3383)	sawteeth%diags%shear1 (float) (7.9.6.1.2)
rhotorn_q1 (3383)	sawteeth%diags%rhotorn_q1 (float) (7.9.6.1.2)
rhotorn_inv (3383)	sawteeth%diags%rhotorn_inv (float) (7.9.6.1.2)
rhotorn_mix (3383)	sawteeth%diags%rhotorn_mix (float) (7.9.6.1.2)
codeparam (3057)	sawteeth%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	sawteeth%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	sawteeth%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	sawteeth%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	sawteeth%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	sawteeth%codeparam%output_flag (integer) (7.9.6.1.3)
time (3057)	sawteeth%time (float) (7.9.6.1.2)

7.9.6.2.42 scenario

datainfo (3058)	scenario%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	scenario%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	scenario%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	scenario%datainfo%source (string) (7.9.6.1.4)
comment (3148)	scenario%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	scenario%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	scenario%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	scenario%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	scenario%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	scenario%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	scenario%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	scenario%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	scenario%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	scenario%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	scenario%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	scenario%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	scenario%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	scenario%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	scenario%datainfo%putinfo%rights (string) (7.9.6.1.4)
centre (3058)	scenario%centre (scenario_centre) (7.9.6.1.391)
te0 (3385)	scenario%centre%te0 (scenario_ref) (7.9.6.1.408)

value (3402)	scenario%centre%te0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%te0%source (string) (7.9.6.1.4)
ti0 (3385)	scenario%centre%ti0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%ti0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%ti0%source (string) (7.9.6.1.4)
ne0 (3385)	scenario%centre%ne0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%ne0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%ne0%source (string) (7.9.6.1.4)
ni0 (3385)	scenario%centre%ni0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%ni0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%ni0%source (string) (7.9.6.1.4)
shift0 (3385)	scenario%centre%shift0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%shift0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%shift0%source (string) (7.9.6.1.4)
psi0 (3385)	scenario%centre%psi0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%psi0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%psi0%source (string) (7.9.6.1.4)
phi0 (3385)	scenario%centre%phi0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%phi0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%phi0%source (string) (7.9.6.1.4)
q0 (3385)	scenario%centre%q0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%q0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%q0%source (string) (7.9.6.1.4)
Rmag (3385)	scenario%centre%Rmag (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%Rmag%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%Rmag%source (string) (7.9.6.1.4)
Zmag (3385)	scenario%centre%Zmag (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%Zmag%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%Zmag%source (string) (7.9.6.1.4)
vtor_0 (3385)	scenario%centre%vtor_0 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%centre%vtor_0%value (float) (7.9.6.1.2)
source (3402)	scenario%centre%vtor_0%source (string) (7.9.6.1.4)
composition (3058)	scenario%composition (scenario_composition) (7.9.6.1.392)
amn (3386)	scenario%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3386)	scenario%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3386)	scenario%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3386)	scenario%composition%imp_flag (vecint_type) (7.9.6.1.19)
rot_imp_flag (3386)	scenario%composition%rot_imp_flag (vecint_type) (7.9.6.1.19)
pellet_amn (3386)	scenario%composition%pellet_amn (vecflt_type) (7.9.6.1.18)
pellet_zn (3386)	scenario%composition%pellet_zn (vecflt_type) (7.9.6.1.18)
nbi_amn (3386)	scenario%composition%nbi_amn (vecflt_type) (7.9.6.1.18)
nbi_zn (3386)	scenario%composition%nbi_zn (vecflt_type) (7.9.6.1.18)
configs (3058)	scenario%configs (scenario_configuration) (7.9.6.1.393)
config (3387)	scenario%configs%config (scenario_int) (7.9.6.1.400)
value (3394)	scenario%configs%config%value (integer) (7.9.6.1.3)
source (3394)	scenario%configs%config%source (string) (7.9.6.1.4)
lmode_sc (3387)	scenario%configs%lmode_sc (string) (7.9.6.1.4)
hmode_sc (3387)	scenario%configs%hmode_sc (string) (7.9.6.1.4)
core_sc (3387)	scenario%configs%core_sc (string) (7.9.6.1.4)
pedestal_sc (3387)	scenario%configs%pedestal_sc (string) (7.9.6.1.4)
helium_sc (3387)	scenario%configs%helium_sc (string) (7.9.6.1.4)
impurity_sc (3387)	scenario%configs%impurity_sc (string) (7.9.6.1.4)
l2h_sc (3387)	scenario%configs%l2h_sc (string) (7.9.6.1.4)
tor_rot_sc (3387)	scenario%configs%tor_rot_sc (string) (7.9.6.1.4)
wall_mat (3387)	scenario%configs%wall_mat (string) (7.9.6.1.4)
evap_mat (3387)	scenario%configs%evap_mat (string) (7.9.6.1.4)
lim_mat (3387)	scenario%configs%lim_mat (string) (7.9.6.1.4)
div_mat (3387)	scenario%configs%div_mat (string) (7.9.6.1.4)
coordinate (3387)	scenario%configs%coordinate (string) (7.9.6.1.4)
ecrh_freq (3387)	scenario%configs%ecrh_freq (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%configs%ecrh_freq%value (float) (7.9.6.1.2)

value (3402)	scenario%confinement%tau_e_ee%value (float) (7.9.6.1.2)
source (3402)	scenario%confinement%tau_e_ee%source (string) (7.9.6.1.4)
tau_e_ii (3388)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%confinement%tau_e_ii%value (float) (7.9.6.1.2)
source (3402)	scenario%confinement%tau_e_ii%source (string) (7.9.6.1.4)
tau_e_ei (3388)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%confinement%tau_e_ei%value (float) (7.9.6.1.2)
source (3402)	scenario%confinement%tau_e_ei%source (string) (7.9.6.1.4)
tau_cur_diff (3388)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%confinement%tau_cur_diff%value (float) (7.9.6.1.2)
source (3402)	scenario%confinement%tau_cur_diff%source (string) (7.9.6.1.4)
tau_i_rol (3388)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%confinement%tau_i_rol%value (float) (7.9.6.1.2)
source (3402)	scenario%confinement%tau_i_rol%source (string) (7.9.6.1.4)
currents (3058)	scenario%currents (scenario_currents) (7.9.6.1.395)
RR (3389)	scenario%currents%RR (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%RR%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%RR%source (string) (7.9.6.1.4)
i_align (3389)	scenario%currents%i_align (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_align%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_align%source (string) (7.9.6.1.4)
i_boot (3389)	scenario%currents%i_boot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_boot%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_boot%source (string) (7.9.6.1.4)
i_cd_tot (3389)	scenario%currents%i_cd_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_cd_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_cd_tot%source (string) (7.9.6.1.4)
i_eccd (3389)	scenario%currents%i_eccd (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_eccd%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_eccd%source (string) (7.9.6.1.4)
i_fast_ion (3389)	scenario%currents%i_fast_ion (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_fast_ion%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_fast_ion%source (string) (7.9.6.1.4)
i_fwcd (3389)	scenario%currents%i_fwcd (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_fwcd%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_fwcd%source (string) (7.9.6.1.4)
i_lhcd (3389)	scenario%currents%i_lhcd (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_lhcd%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_lhcd%source (string) (7.9.6.1.4)
i_nbicd (3389)	scenario%currents%i_nbicd (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_nbicd%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_nbicd%source (string) (7.9.6.1.4)
i_ni_tot (3389)	scenario%currents%i_ni_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_ni_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_ni_tot%source (string) (7.9.6.1.4)
i_ohm (3389)	scenario%currents%i_ohm (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_ohm%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_ohm%source (string) (7.9.6.1.4)
i_par (3389)	scenario%currents%i_par (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_par%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_par%source (string) (7.9.6.1.4)
i_runaway (3389)	scenario%currents%i_runaway (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%i_runaway%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%i_runaway%source (string) (7.9.6.1.4)
v_loop (3389)	scenario%currents%v_loop (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%v_loop%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%v_loop%source (string) (7.9.6.1.4)
v_meas (3389)	scenario%currents%v_meas (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%currents%v_meas%value (float) (7.9.6.1.2)
source (3402)	scenario%currents%v_meas%source (string) (7.9.6.1.4)
edge (3058)	scenario%edge (scenario_edge) (7.9.6.1.396)

te_edge (3390)	scenario%edge%te_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%te_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%te_edge%source (string) (7.9.6.1.4)
ti_edge (3390)	scenario%edge%ti_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%ti_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%ti_edge%source (string) (7.9.6.1.4)
ne_edge (3390)	scenario%edge%ne_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%ne_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%ne_edge%source (string) (7.9.6.1.4)
ni_edge (3390)	scenario%edge%ni_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%ni_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%ni_edge%source (string) (7.9.6.1.4)
psi_edge (3390)	scenario%edge%psi_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%psi_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%psi_edge%source (string) (7.9.6.1.4)
phi_edge (3390)	scenario%edge%phi_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%phi_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%phi_edge%source (string) (7.9.6.1.4)
rho_edge (3390)	scenario%edge%rho_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%rho_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%rho_edge%source (string) (7.9.6.1.4)
drho_edge_dt (3390)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%drho_edge_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%drho_edge_dt%source (string) (7.9.6.1.4)
q_edge (3390)	scenario%edge%q_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%q_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%q_edge%source (string) (7.9.6.1.4)
neutral_flux (3390)	scenario%edge%neutral_flux (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%neutral_flux%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%neutral_flux%source (string) (7.9.6.1.4)
phi_plasma (3390)	scenario%edge%phi_plasma (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%phi_plasma%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%phi_plasma%source (string) (7.9.6.1.4)
vtor_edge (3390)	scenario%edge%vtor_edge (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%edge%vtor_edge%value (float) (7.9.6.1.2)
source (3402)	scenario%edge%vtor_edge%source (string) (7.9.6.1.4)
energy (3058)	scenario%energy (scenario_energy) (7.9.6.1.397)
w_tot (3391)	scenario%energy%w_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%w_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%w_tot%source (string) (7.9.6.1.4)
w_b_pol (3391)	scenario%energy%w_b_pol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%w_b_pol%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%w_b_pol%source (string) (7.9.6.1.4)
w_dia (3391)	scenario%energy%w_dia (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%w_dia%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%w_dia%source (string) (7.9.6.1.4)
dwdia_dt (3391)	scenario%energy%dwdia_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%dwdia_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%dwdia_dt%source (string) (7.9.6.1.4)
w_b_tor_pla (3391)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%w_b_tor_pla%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%w_b_tor_pla%source (string) (7.9.6.1.4)
w_th (3391)	scenario%energy%w_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%w_th%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%w_th%source (string) (7.9.6.1.4)
dwtot_dt (3391)	scenario%energy%dwtot_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%dwtot_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%dwtot_dt%source (string) (7.9.6.1.4)
dwbpol_dt (3391)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%dwbpol_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%dwbpol_dt%source (string) (7.9.6.1.4)

dwbtorpla_dt (3391)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%dwbtorpla_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%dwbtorpla_dt%source (string) (7.9.6.1.4)
dwth_dt (3391)	scenario%energy%dwth_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%dwth_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%dwth_dt%source (string) (7.9.6.1.4)
esup_icrhtot (3391)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_icrhtot%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_icrhtot%source (string) (7.9.6.1.4)
esup_icrhper (3391)	scenario%energy%esup_icrhper (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_icrhper%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_icrhper%source (string) (7.9.6.1.4)
esup_nbitot (3391)	scenario%energy%esup_nbitot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_nbitot%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_nbitot%source (string) (7.9.6.1.4)
esup_nbiperp (3391)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_nbiperp%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_nbiperp%source (string) (7.9.6.1.4)
esup_lhcd (3391)	scenario%energy%esup_lhcd (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_lhcd%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_lhcd%source (string) (7.9.6.1.4)
esup_alpha (3391)	scenario%energy%esup_alpha (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%energy%esup_alpha%value (float) (7.9.6.1.2)
source (3402)	scenario%energy%esup_alpha%source (string) (7.9.6.1.4)
eqgeometry (3058)	scenario%eqgeometry (eqgeometry) (7.9.6.1.209)
source (3203)	scenario%eqgeometry%source (string) (7.9.6.1.4)
boundarytype (3203)	scenario%eqgeometry%boundarytype (integer) (7.9.6.1.3)
boundary (3203)	scenario%eqgeometry%boundary(:) (rz1Dexp) (7.9.6.1.379)
r (3373)	scenario%eqgeometry%boundary(:)%r (vecflt_type) (7.9.6.1.18)
z (3373)	scenario%eqgeometry%boundary(:)%z (vecflt_type) (7.9.6.1.18)
geom_axis (3203)	scenario%eqgeometry%geom_axis (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%geom_axis%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%geom_axis%z (float) (7.9.6.1.2)
a_minor (3203)	scenario%eqgeometry%a_minor (float) (7.9.6.1.2)
elongation (3203)	scenario%eqgeometry%elongation (float) (7.9.6.1.2)
elong_upper (3203)	scenario%eqgeometry%elong_upper (float) (7.9.6.1.2)
elong_lower (3203)	scenario%eqgeometry%elong_lower (float) (7.9.6.1.2)
tria_upper (3203)	scenario%eqgeometry%tria_upper (float) (7.9.6.1.2)
tria_lower (3203)	scenario%eqgeometry%tria_lower (float) (7.9.6.1.2)
xpts (3203)	scenario%eqgeometry%xpts(:) (rz1Dexp) (7.9.6.1.379)
r (3373)	scenario%eqgeometry%xpts(:)%r (vecflt_type) (7.9.6.1.18)
z (3373)	scenario%eqgeometry%xpts(:)%z (vecflt_type) (7.9.6.1.18)
left_low_st (3203)	scenario%eqgeometry%left_low_st (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%left_low_st%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%left_low_st%z (float) (7.9.6.1.2)
right_low_st (3203)	scenario%eqgeometry%right_low_st (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%right_low_st%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%right_low_st%z (float) (7.9.6.1.2)
left_up_st (3203)	scenario%eqgeometry%left_up_st (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%left_up_st%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%left_up_st%z (float) (7.9.6.1.2)
right_up_st (3203)	scenario%eqgeometry%right_up_st (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%right_up_st%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%right_up_st%z (float) (7.9.6.1.2)
active_limit (3203)	scenario%eqgeometry%active_limit (rz0D) (7.9.6.1.376)
r (3370)	scenario%eqgeometry%active_limit%r (float) (7.9.6.1.2)
z (3370)	scenario%eqgeometry%active_limit%z (float) (7.9.6.1.2)
ang_lcms_upo (3203)	scenario%eqgeometry%ang_lcms_upo (float) (7.9.6.1.2)
ang_lcms_upi (3203)	scenario%eqgeometry%ang_lcms_upi (float) (7.9.6.1.2)
ang_lcms_lwo (3203)	scenario%eqgeometry%ang_lcms_lwo (float) (7.9.6.1.2)
ang_lcms_lwi (3203)	scenario%eqgeometry%ang_lcms_lwi (float) (7.9.6.1.2)

global_param (3058)	scenario%global_param (scenario_global) (7.9.6.1.398)
ip (3392)	scenario%global_param%ip (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%ip%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%ip%source (string) (7.9.6.1.4)
dip_dt (3392)	scenario%global_param%dip_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%dip_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%dip_dt%source (string) (7.9.6.1.4)
beta_pol (3392)	scenario%global_param%beta_pol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_pol%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_pol%source (string) (7.9.6.1.4)
beta_tor (3392)	scenario%global_param%beta_tor (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_tor%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_tor%source (string) (7.9.6.1.4)
beta_normal (3392)	scenario%global_param%beta_normal (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_normal%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_normal%source (string) (7.9.6.1.4)
li (3392)	scenario%global_param%li (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%li%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%li%source (string) (7.9.6.1.4)
volume (3392)	scenario%global_param%volume (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%volume%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%volume%source (string) (7.9.6.1.4)
area_pol (3392)	scenario%global_param%area_pol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%area_pol%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%area_pol%source (string) (7.9.6.1.4)
area_ext (3392)	scenario%global_param%area_ext (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%area_ext%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%area_ext%source (string) (7.9.6.1.4)
len_sepa (3392)	scenario%global_param%len_sepa (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%len_sepa%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%len_sepa%source (string) (7.9.6.1.4)
beta_pol_th (3392)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_pol_th%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_pol_th%source (string) (7.9.6.1.4)
beta_tor_th (3392)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_tor_th%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_tor_th%source (string) (7.9.6.1.4)
beta_n_th (3392)	scenario%global_param%beta_n_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%beta_n_th%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%beta_n_th%source (string) (7.9.6.1.4)
disruption (3392)	scenario%global_param%disruption (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%disruption%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%disruption%source (string) (7.9.6.1.4)
mode_h (3392)	scenario%global_param%mode_h (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%mode_h%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%mode_h%source (string) (7.9.6.1.4)
s_alpha (3392)	scenario%global_param%s_alpha (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%global_param%s_alpha%value (float) (7.9.6.1.2)
source (3402)	scenario%global_param%s_alpha%source (string) (7.9.6.1.4)
heat_power (3058)	scenario%heat_power (scenario_heat_power) (7.9.6.1.399)
plh (3393)	scenario%heat_power%plh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%plh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%plh%source (string) (7.9.6.1.4)
pohmic (3393)	scenario%heat_power%pohmic (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pohmic%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pohmic%source (string) (7.9.6.1.4)
picrh (3393)	scenario%heat_power%picrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%picrh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%picrh%source (string) (7.9.6.1.4)
pecrh (3393)	scenario%heat_power%pecrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pecrh%value (float) (7.9.6.1.2)

source (3402)	scenario%heat_power%pecrh%source (string) (7.9.6.1.4)
pnbi (3393)	scenario%heat_power%pnbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pnbi%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pnbi%source (string) (7.9.6.1.4)
pnbi_co_cur (3393)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.6.1.4)
pnbi_counter (3393)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pnbi_counter%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pnbi_counter%source (string) (7.9.6.1.4)
plh_th (3393)	scenario%heat_power%plh_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%plh_th%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%plh_th%source (string) (7.9.6.1.4)
picrh_th (3393)	scenario%heat_power%picrh_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%picrh_th%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%picrh_th%source (string) (7.9.6.1.4)
pecrh_th (3393)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pecrh_th%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pecrh_th%source (string) (7.9.6.1.4)
pnbi_th (3393)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pnbi_th%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pnbi_th%source (string) (7.9.6.1.4)
ploss_icrh (3393)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%ploss_icrh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%ploss_icrh%source (string) (7.9.6.1.4)
ploss_nbi (3393)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%ploss_nbi%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%ploss_nbi%source (string) (7.9.6.1.4)
pbrem (3393)	scenario%heat_power%pbrem (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pbrem%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pbrem%source (string) (7.9.6.1.4)
pcyclo (3393)	scenario%heat_power%pcyclo (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pcyclo%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pcyclo%source (string) (7.9.6.1.4)
prad (3393)	scenario%heat_power%prad (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%prad%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%prad%source (string) (7.9.6.1.4)
pdd_fus (3393)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pdd_fus%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pdd_fus%source (string) (7.9.6.1.4)
pei (3393)	scenario%heat_power%pei (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pei%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pei%source (string) (7.9.6.1.4)
pel_tot (3393)	scenario%heat_power%pel_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pel_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pel_tot%source (string) (7.9.6.1.4)
pel_fus (3393)	scenario%heat_power%pel_fus (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pel_fus%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pel_fus%source (string) (7.9.6.1.4)
pel_icrh (3393)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pel_icrh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pel_icrh%source (string) (7.9.6.1.4)
pel_nbi (3393)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pel_nbi%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pel_nbi%source (string) (7.9.6.1.4)
pfus_dt (3393)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pfus_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pfus_dt%source (string) (7.9.6.1.4)
ploss_fus (3393)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%ploss_fus%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%ploss_fus%source (string) (7.9.6.1.4)

pfus_nbi (3393)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pfus_nbi%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pfus_nbi%source (string) (7.9.6.1.4)
pfus_th (3393)	scenario%heat_power%pfus_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pfus_th%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pfus_th%source (string) (7.9.6.1.4)
padd_tot (3393)	scenario%heat_power%padd_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%padd_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%padd_tot%source (string) (7.9.6.1.4)
pion_tot (3393)	scenario%heat_power%pion_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pion_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pion_tot%source (string) (7.9.6.1.4)
pion_fus (3393)	scenario%heat_power%pion_fus (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pion_fus%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pion_fus%source (string) (7.9.6.1.4)
pion_icrh (3393)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pion_icrh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pion_icrh%source (string) (7.9.6.1.4)
pion_nbi (3393)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pion_nbi%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pion_nbi%source (string) (7.9.6.1.4)
pioniz (3393)	scenario%heat_power%pioniz (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%pioniz%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%pioniz%source (string) (7.9.6.1.4)
ploss (3393)	scenario%heat_power%ploss (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%ploss%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%ploss%source (string) (7.9.6.1.4)
p_wth (3393)	scenario%heat_power%p_wth (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%p_wth%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%p_wth%source (string) (7.9.6.1.4)
p_w (3393)	scenario%heat_power%p_w (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%p_w%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%p_w%source (string) (7.9.6.1.4)
p_l2h_thr (3393)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%p_l2h_thr%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%p_l2h_thr%source (string) (7.9.6.1.4)
p_l2h_sc (3393)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%p_l2h_sc%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%p_l2h_sc%source (string) (7.9.6.1.4)
p_nbi_icrh (3393)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.6.1.2)
source (3402)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.6.1.4)
itb (3058)	scenario%itb (scenario_itb) (7.9.6.1.401)
q_min (3395)	scenario%itb%q_min (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%q_min%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%q_min%source (string) (7.9.6.1.4)
te_itb (3395)	scenario%itb%te_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%te_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%te_itb%source (string) (7.9.6.1.4)
ti_itb (3395)	scenario%itb%ti_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%ti_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%ti_itb%source (string) (7.9.6.1.4)
ne_itb (3395)	scenario%itb%ne_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%ne_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%ne_itb%source (string) (7.9.6.1.4)
ni_itb (3395)	scenario%itb%ni_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%ni_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%ni_itb%source (string) (7.9.6.1.4)
psi_itb (3395)	scenario%itb%psi_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%psi_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%psi_itb%source (string) (7.9.6.1.4)

phi_itb (3395)	scenario%itb%phi_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%phi_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%phi_itb%source (string) (7.9.6.1.4)
rho_itb (3395)	scenario%itb%rho_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%rho_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%rho_itb%source (string) (7.9.6.1.4)
h_itb (3395)	scenario%itb%h_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%h_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%h_itb%source (string) (7.9.6.1.4)
width_itb (3395)	scenario%itb%width_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%width_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%width_itb%source (string) (7.9.6.1.4)
vtor_itb (3395)	scenario%itb%vtor_itb (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%itb%vtor_itb%value (float) (7.9.6.1.2)
source (3402)	scenario%itb%vtor_itb%source (string) (7.9.6.1.4)
itb_type (3395)	scenario%itb%itb_type (scenario_int) (7.9.6.1.400)
value (3394)	scenario%itb%itb_type%value (integer) (7.9.6.1.3)
source (3394)	scenario%itb%itb_type%source (string) (7.9.6.1.4)
lim_div_wall (3058)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.6.1.402)
te_lim_div (3396)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.6.1.4)
ti_lim_div (3396)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.6.1.4)
ne_lim_div (3396)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.6.1.4)
ni_lim_div (3396)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.6.1.4)
q_peak_div (3396)	scenario%lim_div_wall%q_peak_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%q_peak_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%q_peak_div%source (string) (7.9.6.1.4)
q_peak_wall (3396)	scenario%lim_div_wall%q_peak_wall (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%q_peak_wall%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%q_peak_wall%source (string) (7.9.6.1.4)
surf_temp (3396)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%surf_temp%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%surf_temp%source (string) (7.9.6.1.4)
p_lim_div (3396)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.6.1.4)
p_rad_div (3396)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.6.1.4)
p_neut_div (3396)	scenario%lim_div_wall%p_neut_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_neut_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_neut_div%source (string) (7.9.6.1.4)
p_wall (3396)	scenario%lim_div_wall%p_wall (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_wall%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_wall%source (string) (7.9.6.1.4)
wall_temp (3396)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%wall_temp%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%wall_temp%source (string) (7.9.6.1.4)
wall_state (3396)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%wall_state%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%wall_state%source (string) (7.9.6.1.4)
detach_state (3396)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%detach_state%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%detach_state%source (string) (7.9.6.1.4)

pump_flux (3396)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%pump_flux%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%pump_flux%source (string) (7.9.6.1.4)
p_rad_fw (3396)	scenario%lim_div_wall%p_rad_fw (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_rad_fw%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_rad_fw%source (string) (7.9.6.1.4)
p_cond_fw (3396)	scenario%lim_div_wall%p_cond_fw (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_cond_fw%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_cond_fw%source (string) (7.9.6.1.4)
div_wetted (3396)	scenario%lim_div_wall%div_wetted (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%div_wetted%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%div_wetted%source (string) (7.9.6.1.4)
gas_puff (3396)	scenario%lim_div_wall%gas_puff (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%gas_puff%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%gas_puff%source (string) (7.9.6.1.4)
ar_concentr (3396)	scenario%lim_div_wall%ar_concentr (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%ar_concentr%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%ar_concentr%source (string) (7.9.6.1.4)
part_exhaust (3396)	scenario%lim_div_wall%part_exhaust (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%part_exhaust%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%part_exhaust%source (string) (7.9.6.1.4)
f_inner (3396)	scenario%lim_div_wall%f_inner (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%f_inner%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%f_inner%source (string) (7.9.6.1.4)
f_outer (3396)	scenario%lim_div_wall%f_outer (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%f_outer%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%f_outer%source (string) (7.9.6.1.4)
f_pfr (3396)	scenario%lim_div_wall%f_pfr (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%f_pfr%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%f_pfr%source (string) (7.9.6.1.4)
f_rad_fw (3396)	scenario%lim_div_wall%f_rad_fw (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%f_rad_fw%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%f_rad_fw%source (string) (7.9.6.1.4)
q_div (3396)	scenario%lim_div_wall%q_div (vecflt_type) (7.9.6.1.18)
p_cond_div (3396)	scenario%lim_div_wall%p_cond_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_cond_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_cond_div%source (string) (7.9.6.1.4)
pol_ext (3396)	scenario%lim_div_wall%pol_ext (float) (7.9.6.1.2)
flux_exp (3396)	scenario%lim_div_wall%flux_exp (float) (7.9.6.1.2)
tilt_angle (3396)	scenario%lim_div_wall%tilt_angle (float) (7.9.6.1.2)
n_div (3396)	scenario%lim_div_wall%n_div (float) (7.9.6.1.2)
div_dz (3396)	scenario%lim_div_wall%div_dz (float) (7.9.6.1.2)
div_dro (3396)	scenario%lim_div_wall%div_dro (float) (7.9.6.1.2)
div_dri (3396)	scenario%lim_div_wall%div_dri (float) (7.9.6.1.2)
p_nh_div (3396)	scenario%lim_div_wall%p_nh_div (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%lim_div_wall%p_nh_div%value (float) (7.9.6.1.2)
source (3402)	scenario%lim_div_wall%p_nh_div%source (string) (7.9.6.1.4)
line_ave (3058)	scenario%line_ave (scenario_line_ave) (7.9.6.1.403)
ne_line (3397)	scenario%line_ave%ne_line (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%line_ave%ne_line%value (float) (7.9.6.1.2)
source (3402)	scenario%line_ave%ne_line%source (string) (7.9.6.1.4)
zeff_line (3397)	scenario%line_ave%zeff_line (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%line_ave%zeff_line%value (float) (7.9.6.1.2)
source (3402)	scenario%line_ave%zeff_line%source (string) (7.9.6.1.4)
ne_zeff_line (3397)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%line_ave%ne_zeff_line%value (float) (7.9.6.1.2)
source (3402)	scenario%line_ave%ne_zeff_line%source (string) (7.9.6.1.4)
dne_line_dt (3397)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%line_ave%dne_line_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%line_ave%dne_line_dt%source (string) (7.9.6.1.4)
neutron (3058)	scenario%neutron (scenario_neutron) (7.9.6.1.404)

ndd_tot (3398)	scenario%neutron%ndd_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndd_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndd_tot%source (string) (7.9.6.1.4)
ndd_th (3398)	scenario%neutron%ndd_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndd_th%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndd_th%source (string) (7.9.6.1.4)
ndd_nbi_th (3398)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndd_nbi_th%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndd_nbi_th%source (string) (7.9.6.1.4)
ndd_nbi_nbi (3398)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.6.1.4)
ndt_tot (3398)	scenario%neutron%ndt_tot (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndt_tot%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndt_tot%source (string) (7.9.6.1.4)
ndt_th (3398)	scenario%neutron%ndt_th (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%neutron%ndt_th%value (float) (7.9.6.1.2)
source (3402)	scenario%neutron%ndt_th%source (string) (7.9.6.1.4)
ninety_five (3058)	scenario%ninety_five (scenario_ninety_five) (7.9.6.1.405)
q_95 (3399)	scenario%ninety_five%q_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%q_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%q_95%source (string) (7.9.6.1.4)
elong_95 (3399)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%elong_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%elong_95%source (string) (7.9.6.1.4)
tria_95 (3399)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%tria_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%tria_95%source (string) (7.9.6.1.4)
tria_up_95 (3399)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%tria_up_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%tria_up_95%source (string) (7.9.6.1.4)
tria_lo_95 (3399)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%tria_lo_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%tria_lo_95%source (string) (7.9.6.1.4)
te_95 (3399)	scenario%ninety_five%te_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%te_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%te_95%source (string) (7.9.6.1.4)
ti_95 (3399)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%ti_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%ti_95%source (string) (7.9.6.1.4)
ne_95 (3399)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%ne_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%ne_95%source (string) (7.9.6.1.4)
ni_95 (3399)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%ni_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%ni_95%source (string) (7.9.6.1.4)
phi_95 (3399)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%phi_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%phi_95%source (string) (7.9.6.1.4)
rho_95 (3399)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%rho_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%rho_95%source (string) (7.9.6.1.4)
vtor_95 (3399)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%ninety_five%vtor_95%value (float) (7.9.6.1.2)
source (3402)	scenario%ninety_five%vtor_95%source (string) (7.9.6.1.4)
pedestal (3058)	scenario%pedestal (scenario_pedestal) (7.9.6.1.406)
te_ped (3400)	scenario%pedestal%te_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%te_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%te_ped%source (string) (7.9.6.1.4)
ti_ped (3400)	scenario%pedestal%ti_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%ti_ped%value (float) (7.9.6.1.2)

source (3402)	scenario%pedestal%ti_ped%source (string) (7.9.6.1.4)
ne_ped (3400)	scenario%pedestal%ne_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%ne_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%ne_ped%source (string) (7.9.6.1.4)
ni_ped (3400)	scenario%pedestal%ni_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%ni_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%ni_ped%source (string) (7.9.6.1.4)
psi_ped (3400)	scenario%pedestal%psi_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%psi_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%psi_ped%source (string) (7.9.6.1.4)
phi_ped (3400)	scenario%pedestal%phi_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%phi_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%phi_ped%source (string) (7.9.6.1.4)
rho_ped (3400)	scenario%pedestal%rho_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%rho_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%rho_ped%source (string) (7.9.6.1.4)
q_ped (3400)	scenario%pedestal%q_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%q_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%q_ped%source (string) (7.9.6.1.4)
pressure_ped (3400)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%pressure_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%pressure_ped%source (string) (7.9.6.1.4)
vtor_ped (3400)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%pedestal%vtor_ped%value (float) (7.9.6.1.2)
source (3402)	scenario%pedestal%vtor_ped%source (string) (7.9.6.1.4)
references (3058)	scenario%references (scenario_references) (7.9.6.1.409)
plh (3403)	scenario%references%plh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%plh%value (float) (7.9.6.1.2)
source (3402)	scenario%references%plh%source (string) (7.9.6.1.4)
picrh (3403)	scenario%references%picrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%picrh%value (float) (7.9.6.1.2)
source (3402)	scenario%references%picrh%source (string) (7.9.6.1.4)
pecrh (3403)	scenario%references%pecrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%pecrh%value (float) (7.9.6.1.2)
source (3402)	scenario%references%pecrh%source (string) (7.9.6.1.4)
pnbi (3403)	scenario%references%pnbi (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%pnbi%value (float) (7.9.6.1.2)
source (3402)	scenario%references%pnbi%source (string) (7.9.6.1.4)
ip (3403)	scenario%references%ip (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%ip%value (float) (7.9.6.1.2)
source (3402)	scenario%references%ip%source (string) (7.9.6.1.4)
bvac_r (3403)	scenario%references%bvac_r (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%bvac_r%value (float) (7.9.6.1.2)
source (3402)	scenario%references%bvac_r%source (string) (7.9.6.1.4)
zeffl (3403)	scenario%references%zeffl (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%zeffl%value (float) (7.9.6.1.2)
source (3402)	scenario%references%zeffl%source (string) (7.9.6.1.4)
nbar (3403)	scenario%references%nbar (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%nbar%value (float) (7.9.6.1.2)
source (3402)	scenario%references%nbar%source (string) (7.9.6.1.4)
xecrh (3403)	scenario%references%xecrh (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%xecrh%value (float) (7.9.6.1.2)
source (3402)	scenario%references%xecrh%source (string) (7.9.6.1.4)
pol_flux (3403)	scenario%references%pol_flux (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%pol_flux%value (float) (7.9.6.1.2)
source (3402)	scenario%references%pol_flux%source (string) (7.9.6.1.4)
enhancement (3403)	scenario%references%enhancement (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%enhancement%value (float) (7.9.6.1.2)
source (3402)	scenario%references%enhancement%source (string) (7.9.6.1.4)
isotopic (3403)	scenario%references%isotopic (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%isotopic%value (float) (7.9.6.1.2)

source (3402)	scenario%references%isotopic%source (string) (7.9.6.1.4)
nbi_td_ratio (3403)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%nbi_td_ratio%value (float) (7.9.6.1.2)
source (3402)	scenario%references%nbi_td_ratio%source (string) (7.9.6.1.4)
gas_puff (3403)	scenario%references%gas_puff (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%references%gas_puff%value (float) (7.9.6.1.2)
source (3402)	scenario%references%gas_puff%source (string) (7.9.6.1.4)
reactor (3058)	scenario%reactor (scenario_reactor) (7.9.6.1.407)
pnetwork (3401)	scenario%reactor%pnetwork (float) (7.9.6.1.2)
sol (3058)	scenario%sol (scenario_sol) (7.9.6.1.410)
l_te_sol (3404)	scenario%sol%l_te_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_te_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_te_sol%source (string) (7.9.6.1.4)
l_ti_sol (3404)	scenario%sol%l_ti_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_ti_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_ti_sol%source (string) (7.9.6.1.4)
l_ne_sol (3404)	scenario%sol%l_ne_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_ne_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_ne_sol%source (string) (7.9.6.1.4)
l_ni_sol (3404)	scenario%sol%l_ni_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_ni_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_ni_sol%source (string) (7.9.6.1.4)
l_qe_sol (3404)	scenario%sol%l_qe_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_qe_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_qe_sol%source (string) (7.9.6.1.4)
l_qi_sol (3404)	scenario%sol%l_qi_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%l_qi_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%l_qi_sol%source (string) (7.9.6.1.4)
p_rad_sol (3404)	scenario%sol%p_rad_sol (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%p_rad_sol%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%p_rad_sol%source (string) (7.9.6.1.4)
p_neut (3404)	scenario%sol%p_neut (float) (7.9.6.1.2)
gas_puff (3404)	scenario%sol%gas_puff (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%sol%gas_puff%value (float) (7.9.6.1.2)
source (3402)	scenario%sol%gas_puff%source (string) (7.9.6.1.4)
delta_r_in (3404)	scenario%sol%delta_r_in (float) (7.9.6.1.2)
delta_r_out (3404)	scenario%sol%delta_r_out (float) (7.9.6.1.2)
r_in (3404)	scenario%sol%r_in (float) (7.9.6.1.2)
r_out (3404)	scenario%sol%r_out (float) (7.9.6.1.2)
sol_width (3404)	scenario%sol%sol_width (float) (7.9.6.1.2)
vol_ave (3058)	scenario%vol_ave (scenario_vol_ave) (7.9.6.1.411)
te_ave (3405)	scenario%vol_ave%te_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%te_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%te_ave%source (string) (7.9.6.1.4)
ti_ave (3405)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%ti_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%ti_ave%source (string) (7.9.6.1.4)
ne_ave (3405)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%ne_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%ne_ave%source (string) (7.9.6.1.4)
dne_ave_dt (3405)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.6.1.4)
ni_ave (3405)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%ni_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%ni_ave%source (string) (7.9.6.1.4)
zeff_ave (3405)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%zeff_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%zeff_ave%source (string) (7.9.6.1.4)
ti_o_te_ave (3405)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.6.1.2)

source (3402)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.6.1.4)
meff_ave (3405)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%meff_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%meff_ave%source (string) (7.9.6.1.4)
pellet_flux (3405)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%pellet_flux%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%pellet_flux%source (string) (7.9.6.1.4)
nions_ave (3405)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.6.1.18)
omega_ave (3405)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.6.1.408)
value (3402)	scenario%vol_ave%omega_ave%value (float) (7.9.6.1.2)
source (3402)	scenario%vol_ave%omega_ave%source (string) (7.9.6.1.4)
codeparam (3058)	scenario%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	scenario%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	scenario%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	scenario%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	scenario%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	scenario%codeparam%output_flag (integer) (7.9.6.1.3)
time (3058)	scenario%time (float) (7.9.6.1.2)

7.9.6.2.43 solcurdiag

datainfo (3059)	solcurdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	solcurdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	solcurdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	solcurdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	solcurdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	solcurdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	solcurdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	solcurdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	solcurdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	solcurdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	solcurdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	solcurdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	solcurdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	solcurdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	solcurdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	solcurdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	solcurdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	solcurdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	solcurdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
sol_current (3059)	solcurdiag%sol_current(:) (solcurdiag_sol_current) (7.9.6.1.419)
setup (3413)	solcurdiag%sol_current(:)%setup (solcurdiag_sol_current_setup) (7.9.6.1.420)
name (3414)	solcurdiag%sol_current(:)%setup%name (string) (7.9.6.1.4)
id (3414)	solcurdiag%sol_current(:)%setup%id (integer) (7.9.6.1.3)
position (3414)	solcurdiag%sol_current(:)%setup%position (rz1D) (7.9.6.1.377)
r (3371)	solcurdiag%sol_current(:)%setup%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	solcurdiag%sol_current(:)%setup%position%z (vecflt_type) (7.9.6.1.18)
tiles_turn (3414)	solcurdiag%sol_current(:)%setup%tiles_turn (integer) (7.9.6.1.3)
measure (3413)	solcurdiag%sol_current(:)%measure (exp0D) (7.9.6.1.215)
value (3209)	solcurdiag%sol_current(:)%measure%value (float) (7.9.6.1.2)
abserror (3209)	solcurdiag%sol_current(:)%measure%abserror (float) (7.9.6.1.2)
relerror (3209)	solcurdiag%sol_current(:)%measure%relerror (float) (7.9.6.1.2)
clusters (3059)	solcurdiag%clusters(:) (clusters) (7.9.6.1.97)
name (3091)	solcurdiag%clusters(:)%name (string) (7.9.6.1.4)
start (3091)	solcurdiag%clusters(:)%start (integer) (7.9.6.1.3)
finish (3091)	solcurdiag%clusters(:)%finish (integer) (7.9.6.1.3)
time (3059)	solcurdiag%time (float) (7.9.6.1.2)
codeparam (3059)	solcurdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	solcurdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	solcurdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	solcurdiag%codeparam%parameters (string) (7.9.6.1.4)

output_diag (3092)	solcurdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	solcurdiag%codeparam%output_flag (integer) (7.9.6.1.3)

7.9.6.2.44 temporary

datainfo (3060)	temporary%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	temporary%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	temporary%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	temporary%datainfo%source (string) (7.9.6.1.4)
comment (3148)	temporary%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	temporary%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	temporary%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	temporary%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	temporary%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	temporary%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	temporary%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	temporary%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	temporary%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	temporary%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	temporary%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	temporary%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	temporary%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	temporary%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	temporary%datainfo%putinfo%rights (string) (7.9.6.1.4)
non_timed (3060)	temporary%non_timed (temporary_nt) (7.9.6.1.441)
float0d (3435)	temporary%non_timed%float0d(:) (temporary_nt_0dr) (7.9.6.1.444)
identifier (3438)	temporary%non_timed%float0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%float0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%float0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%float0d(:)%identifier%description (string) (7.9.6.1.4)
value (3438)	temporary%non_timed%float0d(:)%value (float) (7.9.6.1.2)
integer0d (3435)	temporary%non_timed%integer0d(:) (temporary_nt_0di) (7.9.6.1.443)
identifier (3437)	temporary%non_timed%integer0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%integer0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%integer0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%integer0d(:)%identifier%description (string) (7.9.6.1.4)
value (3437)	temporary%non_timed%integer0d(:)%value (integer) (7.9.6.1.3)
complex0d (3435)	temporary%non_timed%complex0d(:) (temporary_nt_0dc) (7.9.6.1.442)
identifier (3436)	temporary%non_timed%complex0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%complex0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%complex0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%complex0d(:)%identifier%description (string) (7.9.6.1.4)
value (3436)	temporary%non_timed%complex0d(:)%value (cplx_type) (7.9.6.1.13)
string0d (3435)	temporary%non_timed%string0d(:) (temporary_nt_0ds) (7.9.6.1.445)
identifier (3439)	temporary%non_timed%string0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%string0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%string0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%string0d(:)%identifier%description (string) (7.9.6.1.4)
value (3439)	temporary%non_timed%string0d(:)%value (string) (7.9.6.1.4)
float1d (3435)	temporary%non_timed%float1d(:) (temporary_nt_1dr) (7.9.6.1.448)
identifier (3442)	temporary%non_timed%float1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%float1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%float1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%float1d(:)%identifier%description (string) (7.9.6.1.4)
value (3442)	temporary%non_timed%float1d(:)%value (vecflt_type) (7.9.6.1.18)
integer1d (3435)	temporary%non_timed%integer1d(:) (temporary_nt_1di) (7.9.6.1.447)
identifier (3441)	temporary%non_timed%integer1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%integer1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%integer1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%integer1d(:)%identifier%description (string) (7.9.6.1.4)
value (3441)	temporary%non_timed%integer1d(:)%value (vecint_type) (7.9.6.1.19)

string1d (3435)	temporary%non_timed%string1d(:) (temporary_nt_1dr) (7.9.6.1.448)
identifier (3442)	temporary%non_timed%string1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%string1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%string1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%string1d(:)%identifier%description (string) (7.9.6.1.4)
value (3442)	temporary%non_timed%string1d(:)%value (vecflt_type) (7.9.6.1.18)
complex1d (3435)	temporary%non_timed%complex1d(:) (temporary_nt_1dc) (7.9.6.1.446)
identifier (3440)	temporary%non_timed%complex1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%complex1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%complex1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%complex1d(:)%identifier%description (string) (7.9.6.1.4)
value (3440)	temporary%non_timed%complex1d(:)%value (veccplx_type) (7.9.6.1.17)
float2d (3435)	temporary%non_timed%float2d(:) (temporary_nt_2dr) (7.9.6.1.452)
identifier (3446)	temporary%non_timed%float2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%float2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%float2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%float2d(:)%identifier%description (string) (7.9.6.1.4)
value (3446)	temporary%non_timed%float2d(:)%value (matflt_type) (7.9.6.1.15)
integer2d (3435)	temporary%non_timed%integer2d(:) (temporary_nt_2di) (7.9.6.1.451)
identifier (3445)	temporary%non_timed%integer2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%integer2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%integer2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%integer2d(:)%identifier%description (string) (7.9.6.1.4)
value (3445)	temporary%non_timed%integer2d(:)%value (matint_type) (7.9.6.1.16)
complex2d (3435)	temporary%non_timed%complex2d(:) (temporary_nt_2dc) (7.9.6.1.450)
identifier (3444)	temporary%non_timed%complex2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%complex2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%complex2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%complex2d(:)%identifier%description (string) (7.9.6.1.4)
value (3444)	temporary%non_timed%complex2d(:)%value (matcplx_type) (7.9.6.1.14)
float3d (3435)	temporary%non_timed%float3d(:) (temporary_nt_3dr) (7.9.6.1.455)
identifier (3449)	temporary%non_timed%float3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%float3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%float3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%float3d(:)%identifier%description (string) (7.9.6.1.4)
value (3449)	temporary%non_timed%float3d(:)%value (array3dflt_type) (7.9.6.1.7)
integer3d (3435)	temporary%non_timed%integer3d(:) (temporary_nt_3di) (7.9.6.1.454)
identifier (3448)	temporary%non_timed%integer3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%integer3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%integer3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%integer3d(:)%identifier%description (string) (7.9.6.1.4)
value (3448)	temporary%non_timed%integer3d(:)%value (array3dint_type) (7.9.6.1.8)
complex3d (3435)	temporary%non_timed%complex3d(:) (temporary_nt_3dc) (7.9.6.1.453)
identifier (3447)	temporary%non_timed%complex3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%complex3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%complex3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%complex3d(:)%identifier%description (string) (7.9.6.1.4)
value (3447)	temporary%non_timed%complex3d(:)%value (array3dcplx_type) (7.9.6.1.6)
float4d (3435)	temporary%non_timed%float4d(:) (temporary_nt_4dr) (7.9.6.1.456)
identifier (3450)	temporary%non_timed%float4d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%non_timed%float4d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%non_timed%float4d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%non_timed%float4d(:)%identifier%description (string) (7.9.6.1.4)
value (3450)	temporary%non_timed%float4d(:)%value (array4dflt_type) (7.9.6.1.9)
timed (3060)	temporary%timed (temporary_t) (7.9.6.1.457)
float0d (3451)	temporary%timed%float0d(:) (temporary_t_0dr) (7.9.6.1.460)
identifier (3454)	temporary%timed%float0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%float0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%float0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%float0d(:)%identifier%description (string) (7.9.6.1.4)
value (3454)	temporary%timed%float0d(:)%value (float) (7.9.6.1.2)

integer0d (3451)	temporary%timed%integer0d(:) (temporary_t_0di) (7.9.6.1.459)
identifier (3453)	temporary%timed%integer0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%integer0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%integer0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%integer0d(:)%identifier%description (string) (7.9.6.1.4)
value (3453)	temporary%timed%integer0d(:)%value (integer) (7.9.6.1.3)
complex0d (3451)	temporary%timed%complex0d(:) (temporary_t_0dc) (7.9.6.1.458)
identifier (3452)	temporary%timed%complex0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%complex0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%complex0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%complex0d(:)%identifier%description (string) (7.9.6.1.4)
value (3452)	temporary%timed%complex0d(:)%value (cplx_type) (7.9.6.1.13)
string0d (3451)	temporary%timed%string0d(:) (temporary_t_0ds) (7.9.6.1.461)
identifier (3455)	temporary%timed%string0d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%string0d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%string0d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%string0d(:)%identifier%description (string) (7.9.6.1.4)
value (3455)	temporary%timed%string0d(:)%value (string) (7.9.6.1.4)
float1d (3451)	temporary%timed%float1d(:) (temporary_t_1dr) (7.9.6.1.464)
identifier (3458)	temporary%timed%float1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%float1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%float1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%float1d(:)%identifier%description (string) (7.9.6.1.4)
value (3458)	temporary%timed%float1d(:)%value (vecflt_type) (7.9.6.1.18)
integer1d (3451)	temporary%timed%integer1d(:) (temporary_t_1di) (7.9.6.1.463)
identifier (3457)	temporary%timed%integer1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%integer1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%integer1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%integer1d(:)%identifier%description (string) (7.9.6.1.4)
value (3457)	temporary%timed%integer1d(:)%value (vecint_type) (7.9.6.1.19)
complex1d (3451)	temporary%timed%complex1d(:) (temporary_t_1dc) (7.9.6.1.462)
identifier (3456)	temporary%timed%complex1d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%complex1d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%complex1d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%complex1d(:)%identifier%description (string) (7.9.6.1.4)
value (3456)	temporary%timed%complex1d(:)%value (veccplx_type) (7.9.6.1.17)
float2d (3451)	temporary%timed%float2d(:) (temporary_t_2dr) (7.9.6.1.467)
identifier (3461)	temporary%timed%float2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%float2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%float2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%float2d(:)%identifier%description (string) (7.9.6.1.4)
value (3461)	temporary%timed%float2d(:)%value (matflt_type) (7.9.6.1.15)
integer2d (3451)	temporary%timed%integer2d(:) (temporary_t_2di) (7.9.6.1.466)
identifier (3460)	temporary%timed%integer2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%integer2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%integer2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%integer2d(:)%identifier%description (string) (7.9.6.1.4)
value (3460)	temporary%timed%integer2d(:)%value (matint_type) (7.9.6.1.16)
complex2d (3451)	temporary%timed%complex2d(:) (temporary_t_2dc) (7.9.6.1.465)
identifier (3459)	temporary%timed%complex2d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%complex2d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%complex2d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%complex2d(:)%identifier%description (string) (7.9.6.1.4)
value (3459)	temporary%timed%complex2d(:)%value (matcplx_type) (7.9.6.1.14)
float3d (3451)	temporary%timed%float3d(:) (temporary_t_3dr) (7.9.6.1.470)
identifier (3464)	temporary%timed%float3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%float3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%float3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%float3d(:)%identifier%description (string) (7.9.6.1.4)
value (3464)	temporary%timed%float3d(:)%value (array3dflt_type) (7.9.6.1.7)
integer3d (3451)	temporary%timed%integer3d(:) (temporary_t_3di) (7.9.6.1.469)

identifier (3463)	temporary%timed%integer3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%integer3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%integer3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%integer3d(:)%identifier%description (string) (7.9.6.1.4)
value (3463)	temporary%timed%integer3d(:)%value (array3dint_type) (7.9.6.1.8)
complex3d (3451)	temporary%timed%complex3d(:) (temporary_t_3dc) (7.9.6.1.468)
identifier (3462)	temporary%timed%complex3d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%complex3d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%complex3d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%complex3d(:)%identifier%description (string) (7.9.6.1.4)
value (3462)	temporary%timed%complex3d(:)%value (array3dcplx_type) (7.9.6.1.6)
float4d (3451)	temporary%timed%float4d(:) (temporary_t_4dr) (7.9.6.1.471)
identifier (3465)	temporary%timed%float4d(:)%identifier (identifier) (7.9.6.1.254)
id (3248)	temporary%timed%float4d(:)%identifier%id (string) (7.9.6.1.4)
flag (3248)	temporary%timed%float4d(:)%identifier%flag (integer) (7.9.6.1.3)
description (3248)	temporary%timed%float4d(:)%identifier%description (string) (7.9.6.1.4)
value (3465)	temporary%timed%float4d(:)%value (array4dflt_type) (7.9.6.1.9)
codeparam (3060)	temporary%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	temporary%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	temporary%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	temporary%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	temporary%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	temporary%codeparam%output_flag (integer) (7.9.6.1.3)
time (3060)	temporary%time (float) (7.9.6.1.2)

7.9.6.2.45 topinfo

dataprovider (3061)	topinfo%dataprovider (string) (7.9.6.1.4)
description (3061)	topinfo%description (string) (7.9.6.1.4)
firstputdate (3061)	topinfo%firstputdate (string) (7.9.6.1.4)
lastupdate (3061)	topinfo%lastupdate (string) (7.9.6.1.4)
source (3061)	topinfo%source (string) (7.9.6.1.4)
comment (3061)	topinfo%comment (string) (7.9.6.1.4)
dataversion (3061)	topinfo%dataversion (string) (7.9.6.1.4)
workflow (3061)	topinfo%workflow (string) (7.9.6.1.4)
entry (3061)	topinfo%entry (entry_def) (7.9.6.1.206)
user (3200)	topinfo%entry%user (string) (7.9.6.1.4)
machine (3200)	topinfo%entry%machine (string) (7.9.6.1.4)
shot (3200)	topinfo%entry%shot (integer) (7.9.6.1.3)
run (3200)	topinfo%entry%run (integer) (7.9.6.1.3)
parent_entry (3061)	topinfo%parent_entry (entry_def) (7.9.6.1.206)
user (3200)	topinfo%parent_entry%user (string) (7.9.6.1.4)
machine (3200)	topinfo%parent_entry%machine (string) (7.9.6.1.4)
shot (3200)	topinfo%parent_entry%shot (integer) (7.9.6.1.3)
run (3200)	topinfo%parent_entry%run (integer) (7.9.6.1.3)
mdinfo (3061)	topinfo%mdinfo (mdinfo) (7.9.6.1.281)
shot_min (3275)	topinfo%mdinfo%shot_min (integer) (7.9.6.1.3)
shot_max (3275)	topinfo%mdinfo%shot_max (integer) (7.9.6.1.3)
md_entry (3275)	topinfo%mdinfo%md_entry (entry_def) (7.9.6.1.206)
user (3200)	topinfo%mdinfo%md_entry%user (string) (7.9.6.1.4)
machine (3200)	topinfo%mdinfo%md_entry%machine (string) (7.9.6.1.4)
shot (3200)	topinfo%mdinfo%md_entry%shot (integer) (7.9.6.1.3)
run (3200)	topinfo%mdinfo%md_entry%run (integer) (7.9.6.1.3)

7.9.6.2.46 toroidfield

datainfo (3062)	toroidfield%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	toroidfield%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	toroidfield%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	toroidfield%datainfo%source (string) (7.9.6.1.4)
comment (3148)	toroidfield%datainfo%comment (string) (7.9.6.1.4)

cocos (3148)	toroidfield%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	toroidfield%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	toroidfield%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	toroidfield%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	toroidfield%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	toroidfield%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	toroidfield%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	toroidfield%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	toroidfield%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	toroidfield%datainfo%putinfo%rights (string) (7.9.6.1.4)
desc_tfcoils (3062)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.6.1.472)
type (3466)	toroidfield%desc_tfcoils%type (integer) (7.9.6.1.3)
phi (3466)	toroidfield%desc_tfcoils%phi (float) (7.9.6.1.2)
circularcoil (3466)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.6.1.96)
centre (3090)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.6.1.376)
r (3370)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.6.1.2)
z (3370)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.6.1.2)
hlength (3090)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.6.1.2)
radialhwidth (3090)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.6.1.2)
planecoil (3466)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.6.1.348)
coordinates (3342)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.6.1.377)
r (3371)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.6.1.18)
z (3371)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.6.1.18)
hlength (3342)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.6.1.18)
radialhwidth (3342)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.6.1.18)
inboard (3466)	toroidfield%desc_tfcoils%inboard (tf_structure) (7.9.6.1.474)
jcable (3468)	toroidfield%desc_tfcoils%inboard%jcable (float) (7.9.6.1.2)
tisotf (3468)	toroidfield%desc_tfcoils%inboard%tisotf (float) (7.9.6.1.2)
efcasing (3468)	toroidfield%desc_tfcoils%inboard%efcasing (float) (7.9.6.1.2)
escasing (3468)	toroidfield%desc_tfcoils%inboard%escasing (float) (7.9.6.1.2)
sigjackettf (3468)	toroidfield%desc_tfcoils%inboard%sigjackettf (float) (7.9.6.1.2)
sigvaulttf (3468)	toroidfield%desc_tfcoils%inboard%sigvaulttf (float) (7.9.6.1.2)
ktf (3468)	toroidfield%desc_tfcoils%inboard%ktf (float) (7.9.6.1.2)
ritf (3468)	toroidfield%desc_tfcoils%inboard%ritf (float) (7.9.6.1.2)
riitf (3468)	toroidfield%desc_tfcoils%inboard%riitf (float) (7.9.6.1.2)
retf (3468)	toroidfield%desc_tfcoils%inboard%retf (float) (7.9.6.1.2)
he_fraction (3468)	toroidfield%desc_tfcoils%inboard%he_fraction (float) (7.9.6.1.2)
ss_fraction (3468)	toroidfield%desc_tfcoils%inboard%ss_fraction (float) (7.9.6.1.2)
pow_dens_wp (3468)	toroidfield%desc_tfcoils%inboard%pow_dens_wp (float) (7.9.6.1.2)
outboard (3466)	toroidfield%desc_tfcoils%outboard (tf_structure) (7.9.6.1.474)
jcable (3468)	toroidfield%desc_tfcoils%outboard%jcable (float) (7.9.6.1.2)
tisotf (3468)	toroidfield%desc_tfcoils%outboard%tisotf (float) (7.9.6.1.2)
efcasing (3468)	toroidfield%desc_tfcoils%outboard%efcasing (float) (7.9.6.1.2)
escasing (3468)	toroidfield%desc_tfcoils%outboard%escasing (float) (7.9.6.1.2)
sigjackettf (3468)	toroidfield%desc_tfcoils%outboard%sigjackettf (float) (7.9.6.1.2)
sigvaulttf (3468)	toroidfield%desc_tfcoils%outboard%sigvaulttf (float) (7.9.6.1.2)
ktf (3468)	toroidfield%desc_tfcoils%outboard%ktf (float) (7.9.6.1.2)
ritf (3468)	toroidfield%desc_tfcoils%outboard%ritf (float) (7.9.6.1.2)
riitf (3468)	toroidfield%desc_tfcoils%outboard%riitf (float) (7.9.6.1.2)
retf (3468)	toroidfield%desc_tfcoils%outboard%retf (float) (7.9.6.1.2)
he_fraction (3468)	toroidfield%desc_tfcoils%outboard%he_fraction (float) (7.9.6.1.2)
ss_fraction (3468)	toroidfield%desc_tfcoils%outboard%ss_fraction (float) (7.9.6.1.2)
pow_dens_wp (3468)	toroidfield%desc_tfcoils%outboard%pow_dens_wp (float) (7.9.6.1.2)
nturns (3062)	toroidfield%nturns (integer) (7.9.6.1.3)
ncoils (3062)	toroidfield%ncoils (integer) (7.9.6.1.3)
current (3062)	toroidfield%current (exp0D) (7.9.6.1.215)
value (3209)	toroidfield%current%value (float) (7.9.6.1.2)

abserror (3209)	toroidfield%current%abserror (float) (7.9.6.1.2)
relerror (3209)	toroidfield%current%relerror (float) (7.9.6.1.2)
bvac_r (3062)	toroidfield%bvac_r (exp0D) (7.9.6.1.215)
value (3209)	toroidfield%bvac_r%value (float) (7.9.6.1.2)
abserror (3209)	toroidfield%bvac_r%abserror (float) (7.9.6.1.2)
relerror (3209)	toroidfield%bvac_r%relerror (float) (7.9.6.1.2)
r0 (3062)	toroidfield%r0 (float) (7.9.6.1.2)
p_cryo (3062)	toroidfield%p_cryo (float) (7.9.6.1.2)
wp_nh_max (3062)	toroidfield%wp_nh_max (float) (7.9.6.1.2)
tfc_nh (3062)	toroidfield%tfc_nh (float) (7.9.6.1.2)
neut_flux_inb (3062)	toroidfield%neut_flux_inb (float) (7.9.6.1.2)
neut_flux_outb (3062)	toroidfield%neut_flux_outb (float) (7.9.6.1.2)
codeparam (3062)	toroidfield%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	toroidfield%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	toroidfield%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	toroidfield%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	toroidfield%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	toroidfield%codeparam%output_flag (integer) (7.9.6.1.3)
time (3062)	toroidfield%time (float) (7.9.6.1.2)

7.9.6.2.47 tsdiag

datainfo (3063)	tsdiag%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	tsdiag%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	tsdiag%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	tsdiag%datainfo%source (string) (7.9.6.1.4)
comment (3148)	tsdiag%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	tsdiag%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	tsdiag%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	tsdiag%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	tsdiag%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	tsdiag%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	tsdiag%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	tsdiag%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	tsdiag%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	tsdiag%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	tsdiag%datainfo%putinfo%rights (string) (7.9.6.1.4)
setup (3063)	tsdiag%setup (tssetup) (7.9.6.1.486)
position (3480)	tsdiag%setup%position (rzphi1D) (7.9.6.1.383)
r (3377)	tsdiag%setup%position%r (vecflt_type) (7.9.6.1.18)
z (3377)	tsdiag%setup%position%z (vecflt_type) (7.9.6.1.18)
phi (3377)	tsdiag%setup%position%phi (vecflt_type) (7.9.6.1.18)
measure (3063)	tsdiag%measure (tsmeasure) (7.9.6.1.485)
te (3479)	tsdiag%measure%te (exp1D) (7.9.6.1.216)
value (3210)	tsdiag%measure%te%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	tsdiag%measure%te%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	tsdiag%measure%te%relerror (vecflt_type) (7.9.6.1.18)
ne (3479)	tsdiag%measure%ne (exp1D) (7.9.6.1.216)
value (3210)	tsdiag%measure%ne%value (vecflt_type) (7.9.6.1.18)
abserror (3210)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.6.1.18)
relerror (3210)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.6.1.18)
codeparam (3063)	tsdiag%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	tsdiag%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	tsdiag%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	tsdiag%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	tsdiag%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	tsdiag%codeparam%output_flag (integer) (7.9.6.1.3)

time (3063)	tsdiag%time (float) (7.9.6.1.2)

7.9.6.2.48 turbulence

datainfo (3064)	turbulence%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	turbulence%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	turbulence%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	turbulence%datainfo%source (string) (7.9.6.1.4)
comment (3148)	turbulence%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	turbulence%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	turbulence%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	turbulence%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	turbulence%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	turbulence%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	turbulence%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	turbulence%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	turbulence%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	turbulence%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	turbulence%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	turbulence%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	turbulence%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	turbulence%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	turbulence%datainfo%putinfo%rights (string) (7.9.6.1.4)
composition (3064)	turbulence%composition (turbcomposition) (7.9.6.1.487)
amn (3481)	turbulence%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3481)	turbulence%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3481)	turbulence%composition%zion (vecflt_type) (7.9.6.1.18)
ie_mass (3481)	turbulence%composition%ie_mass (vecflt_type) (7.9.6.1.18)
coordsys (3064)	turbulence%coordsys (turbcoordsys) (7.9.6.1.488)
grid_type (3482)	turbulence%coordsys%grid_type (string) (7.9.6.1.4)
turbgrid (3482)	turbulence%coordsys%turbgrid (turbgrid) (7.9.6.1.490)
dim1 (3484)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.6.1.18)
dim2 (3484)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.6.1.18)
dim3 (3484)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.6.1.18)
dim_v1 (3484)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.6.1.18)
dim_v2 (3484)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.6.1.18)
jacobian (3482)	turbulence%coordsys%jacobian (matflt_type) (7.9.6.1.15)
g_11 (3482)	turbulence%coordsys%g_11 (matflt_type) (7.9.6.1.15)
g_12 (3482)	turbulence%coordsys%g_12 (matflt_type) (7.9.6.1.15)
g_13 (3482)	turbulence%coordsys%g_13 (matflt_type) (7.9.6.1.15)
g_22 (3482)	turbulence%coordsys%g_22 (matflt_type) (7.9.6.1.15)
g_23 (3482)	turbulence%coordsys%g_23 (matflt_type) (7.9.6.1.15)
g_33 (3482)	turbulence%coordsys%g_33 (matflt_type) (7.9.6.1.15)
position (3482)	turbulence%coordsys%position (rzphi3D) (7.9.6.1.387)
r (3381)	turbulence%coordsys%position%r (array3dflt_type) (7.9.6.1.7)
z (3381)	turbulence%coordsys%position%z (array3dflt_type) (7.9.6.1.7)
phi (3381)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.6.1.7)
var0d (3064)	turbulence%var0d (turbvar0d) (7.9.6.1.492)
dtime_type (3486)	turbulence%var0d%dtime_type (string) (7.9.6.1.4)
dtime (3486)	turbulence%var0d%dtime (vecflt_type) (7.9.6.1.18)
en_exb (3486)	turbulence%var0d%en_exb (vecflt_type) (7.9.6.1.18)
en_mag (3486)	turbulence%var0d%en_mag (vecflt_type) (7.9.6.1.18)
en_el_th (3486)	turbulence%var0d%en_el_th (vecflt_type) (7.9.6.1.18)
en_ion_th (3486)	turbulence%var0d%en_ion_th (matflt_type) (7.9.6.1.15)
en_el_par (3486)	turbulence%var0d%en_el_par (vecflt_type) (7.9.6.1.18)
en_ion_par (3486)	turbulence%var0d%en_ion_par (matflt_type) (7.9.6.1.15)
en_tot (3486)	turbulence%var0d%en_tot (vecflt_type) (7.9.6.1.18)
fl_el (3486)	turbulence%var0d%fl_el (vecflt_type) (7.9.6.1.18)
fl_heatel (3486)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.6.1.18)
fl_ion (3486)	turbulence%var0d%fl_ion (matflt_type) (7.9.6.1.15)
fl_heation (3486)	turbulence%var0d%fl_heation (matflt_type) (7.9.6.1.15)

fl_magel (3486)	turbulence%var0d%fl_magel (vecflt_type) (7.9.6.1.18)
fl_magheatel (3486)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.6.1.18)
fl_magion (3486)	turbulence%var0d%fl_magion (matflt_type) (7.9.6.1.15)
flmagheation (3486)	turbulence%var0d%flmagheation (matflt_type) (7.9.6.1.15)
var1d (3064)	turbulence%var1d (turbvar1d) (7.9.6.1.493)
rho_tor_norm (3487)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.6.1.18)
phi (3487)	turbulence%var1d%phi (vecflt_type) (7.9.6.1.18)
er (3487)	turbulence%var1d%er (vecflt_type) (7.9.6.1.18)
vor (3487)	turbulence%var1d%vor (vecflt_type) (7.9.6.1.18)
apl (3487)	turbulence%var1d%apl (vecflt_type) (7.9.6.1.18)
jpl (3487)	turbulence%var1d%jpl (vecflt_type) (7.9.6.1.18)
ne (3487)	turbulence%var1d%ne (vecflt_type) (7.9.6.1.18)
te (3487)	turbulence%var1d%te (vecflt_type) (7.9.6.1.18)
ni (3487)	turbulence%var1d%ni (matflt_type) (7.9.6.1.15)
ti (3487)	turbulence%var1d%ti (matflt_type) (7.9.6.1.15)
ui (3487)	turbulence%var1d%ui (matflt_type) (7.9.6.1.15)
var2d (3064)	turbulence%var2d (turbvar2d) (7.9.6.1.494)
rho_tor_norm (3488)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.6.1.18)
theta (3488)	turbulence%var2d%theta (vecflt_type) (7.9.6.1.18)
phi (3488)	turbulence%var2d%phi (matflt_type) (7.9.6.1.15)
apl (3488)	turbulence%var2d%apl (matflt_type) (7.9.6.1.15)
jpl (3488)	turbulence%var2d%jpl (matflt_type) (7.9.6.1.15)
vor (3488)	turbulence%var2d%vor (matflt_type) (7.9.6.1.15)
ne (3488)	turbulence%var2d%ne (matflt_type) (7.9.6.1.15)
te (3488)	turbulence%var2d%te (matflt_type) (7.9.6.1.15)
ni (3488)	turbulence%var2d%ni (array3dflt_type) (7.9.6.1.7)
ti (3488)	turbulence%var2d%ti (array3dflt_type) (7.9.6.1.7)
ui (3488)	turbulence%var2d%ui (array3dflt_type) (7.9.6.1.7)
var3d (3064)	turbulence%var3d (turbvar3d) (7.9.6.1.495)
phi (3489)	turbulence%var3d%phi (array3dflt_type) (7.9.6.1.7)
vor (3489)	turbulence%var3d%vor (array3dflt_type) (7.9.6.1.7)
jpl (3489)	turbulence%var3d%jpl (array3dflt_type) (7.9.6.1.7)
ne (3489)	turbulence%var3d%ne (array3dflt_type) (7.9.6.1.7)
var4d (3064)	turbulence%var4d (turbvar4d) (7.9.6.1.496)
fe (3490)	turbulence%var4d%fe (array4dflt_type) (7.9.6.1.9)
fi (3490)	turbulence%var4d%fi (array5dflt_type) (7.9.6.1.10)
var5d (3064)	turbulence%var5d (turbvar5d) (7.9.6.1.497)
fe (3491)	turbulence%var5d%fe (array5dflt_type) (7.9.6.1.10)
fi (3491)	turbulence%var5d%fi (array6dflt_type) (7.9.6.1.11)
spec1d (3064)	turbulence%spec1d (turbspec1d) (7.9.6.1.491)
kperp (3485)	turbulence%spec1d%kperp (vecflt_type) (7.9.6.1.18)
phi (3485)	turbulence%spec1d%phi (vecflt_type) (7.9.6.1.18)
vor (3485)	turbulence%spec1d%vor (vecflt_type) (7.9.6.1.18)
b (3485)	turbulence%spec1d%b (vecflt_type) (7.9.6.1.18)
jpl (3485)	turbulence%spec1d%jpl (vecflt_type) (7.9.6.1.18)
ne (3485)	turbulence%spec1d%ne (vecflt_type) (7.9.6.1.18)
te (3485)	turbulence%spec1d%te (vecflt_type) (7.9.6.1.18)
ti (3485)	turbulence%spec1d%ti (matflt_type) (7.9.6.1.15)
fe (3485)	turbulence%spec1d%fe (vecflt_type) (7.9.6.1.18)
qe (3485)	turbulence%spec1d%qe (vecflt_type) (7.9.6.1.18)
qi (3485)	turbulence%spec1d%qi (matflt_type) (7.9.6.1.15)
me (3485)	turbulence%spec1d%me (vecflt_type) (7.9.6.1.18)
mi (3485)	turbulence%spec1d%mi (matflt_type) (7.9.6.1.15)
env1d (3064)	turbulence%env1d (turbenv1d) (7.9.6.1.489)
theta (3483)	turbulence%env1d%theta (vecflt_type) (7.9.6.1.18)
phi (3483)	turbulence%env1d%phi (vecflt_type) (7.9.6.1.18)
vor (3483)	turbulence%env1d%vor (vecflt_type) (7.9.6.1.18)
jpl (3483)	turbulence%env1d%jpl (vecflt_type) (7.9.6.1.18)
ne (3483)	turbulence%env1d%ne (vecflt_type) (7.9.6.1.18)
he (3483)	turbulence%env1d%he (vecflt_type) (7.9.6.1.18)
te (3483)	turbulence%env1d%te (vecflt_type) (7.9.6.1.18)

ni (3483)	turbulence%env1d%ni (matflt_type) (7.9.6.1.15)
ti (3483)	turbulence%env1d%ti (matflt_type) (7.9.6.1.15)
ui (3483)	turbulence%env1d%ui (matflt_type) (7.9.6.1.15)
fe (3483)	turbulence%env1d%fe (vecflt_type) (7.9.6.1.18)
qe (3483)	turbulence%env1d%qe (vecflt_type) (7.9.6.1.18)
qi (3483)	turbulence%env1d%qi (matflt_type) (7.9.6.1.15)
me (3483)	turbulence%env1d%me (vecflt_type) (7.9.6.1.18)
mi (3483)	turbulence%env1d%mi (matflt_type) (7.9.6.1.15)
codeparam (3064)	turbulence%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	turbulence%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	turbulence%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	turbulence%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	turbulence%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	turbulence%codeparam%output_flag (integer) (7.9.6.1.3)
time (3064)	turbulence%time (float) (7.9.6.1.2)

7.9.6.2.49 wall

datainfo (3065)	wall%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	wall%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	wall%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	wall%datainfo%source (string) (7.9.6.1.4)
comment (3148)	wall%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	wall%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	wall%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	wall%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	wall%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	wall%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	wall%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	wall%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	wall%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	wall%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	wall%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	wall%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	wall%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	wall%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	wall%datainfo%putinfo%rights (string) (7.9.6.1.4)
wall0d (3065)	wall%wall0d (wall_wall0d) (7.9.6.1.512)
pumping_speed (3506)	wall%wall0d%pumping_speed (vecflt_type) (7.9.6.1.18)
gas_puff (3506)	wall%wall0d%gas_puff (vecflt_type) (7.9.6.1.18)
wall_inventory (3506)	wall%wall0d%wall_inventory (vecflt_type) (7.9.6.1.18)
recycling_coefficient (3506)	wall%wall0d%recycling_coefficient (vecflt_type) (7.9.6.1.18)
wall_temperature (3506)	wall%wall0d%wall_temperature (float) (7.9.6.1.2)
power_from_plasma (3506)	wall%wall0d%power_from_plasma (float) (7.9.6.1.2)
power_to_cooling (3506)	wall%wall0d%power_to_cooling (float) (7.9.6.1.2)
plasma (3506)	wall%wall0d%plasma (wall_wall0d_plasma) (7.9.6.1.513)
species_index (3507)	wall%wall0d%plasma%species_index (matint_type) (7.9.6.1.16)
flux (3507)	wall%wall0d%plasma%flux (vecflt_type) (7.9.6.1.18)
energy (3507)	wall%wall0d%plasma%energy (vecflt_type) (7.9.6.1.18)
wall2d_mhd (3065)	wall%wall2d_mhd (wall2d_mhd) (7.9.6.1.500)
res_wall (3494)	wall%wall2d_mhd%res_wall(:) (mhd_res_wall2d) (7.9.6.1.285)
walltype (3279)	wall%wall2d_mhd%res_wall(:)%walltype (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d_mhd%res_wall(:)%walltype%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d_mhd%res_wall(:)%walltype%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d_mhd%res_wall(:)%walltype%description (string) (7.9.6.1.4)
delta (3279)	wall%wall2d_mhd%res_wall(:)%delta (float) (7.9.6.1.2)
eta (3279)	wall%wall2d_mhd%res_wall(:)%eta (float) (7.9.6.1.2)
npoloidal (3279)	wall%wall2d_mhd%res_wall(:)%npoloidal (integer) (7.9.6.1.3)
position (3279)	wall%wall2d_mhd%res_wall(:)%position (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d_mhd%res_wall(:)%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d_mhd%res_wall(:)%position%z (vecflt_type) (7.9.6.1.18)

holes (3279)	wall%wall2d_mhd%res_wall(:)%holes (holes) (7.9.6.1.253)
n_holes (3247)	wall%wall2d_mhd%res_wall(:)%holes%n_holes (integer) (7.9.6.1.3)
coordinates (3247)	wall%wall2d_mhd%res_wall(:)%holes%coordinates (coordinates) (7.9.6.1.123)
theta (3117)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%theta (vecflt_type) (7.9.6.1.18)
phi (3117)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%phi (vecflt_type) (7.9.6.1.18)
width (3247)	wall%wall2d_mhd%res_wall(:)%holes%width (width) (7.9.6.1.525)
dtheta (3519)	wall%wall2d_mhd%res_wall(:)%holes%width%dtheta (vecflt_type) (7.9.6.1.18)
phi (3519)	wall%wall2d_mhd%res_wall(:)%holes%width%phi (vecflt_type) (7.9.6.1.18)
eta (3247)	wall%wall2d_mhd%res_wall(:)%holes%eta (vecflt_type) (7.9.6.1.18)
ideal_wall (3494)	wall%wall2d_mhd%ideal_wall (mhd_ideal_wall2d) (7.9.6.1.282)
walltype (3276)	wall%wall2d_mhd%ideal_wall%walltype (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d_mhd%ideal_wall%walltype%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d_mhd%ideal_wall%walltype%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d_mhd%ideal_wall%walltype%description (string) (7.9.6.1.4)
position (3276)	wall%wall2d_mhd%ideal_wall%position (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d_mhd%ideal_wall%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d_mhd%ideal_wall%position%z (vecflt_type) (7.9.6.1.18)
wall2d (3065)	wall%wall2d(:) (wall2d) (7.9.6.1.499)
wall_id (3493)	wall%wall2d(:)%wall_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d(:)%wall_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d(:)%wall_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d(:)%wall_id%description (string) (7.9.6.1.4)
limiter (3493)	wall%wall2d(:)%limiter (wall_limiter) (7.9.6.1.504)
limiter_id (3498)	wall%wall2d(:)%limiter%limiter_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d(:)%limiter%limiter_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d(:)%limiter%limiter_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d(:)%limiter%limiter_id%description (string) (7.9.6.1.4)
limiter_unit (3498)	wall%wall2d(:)%limiter%limiter_unit(:) (limiter_unit) (7.9.6.1.271)
name (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%name (string) (7.9.6.1.4)
closed (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%closed (string) (7.9.6.1.4)
position (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%position (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d(:)%limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d(:)%limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.6.1.18)
eta (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%eta (float) (7.9.6.1.2)
delta (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%delta (float) (7.9.6.1.2)
permeability (3265)	wall%wall2d(:)%limiter%limiter_unit(:)%permeability (float) (7.9.6.1.2)
vessel (3493)	wall%wall2d(:)%vessel (wall_vessel) (7.9.6.1.509)
vessel_id (3503)	wall%wall2d(:)%vessel%vessel_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d(:)%vessel%vessel_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d(:)%vessel%vessel_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d(:)%vessel%vessel_id%description (string) (7.9.6.1.4)
vessel_unit (3503)	wall%wall2d(:)%vessel%vessel_unit(:) (wall_vessel_unit) (7.9.6.1.511)
annular (3505)	wall%wall2d(:)%vessel%vessel_unit(:)%annular (wall_vessel_annular) (7.9.6.1.510)
name (3504)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%name (string) (7.9.6.1.4)
inside (3504)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%z (vecflt_type) (7.9.6.1.18)
outside (3504)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%z (vecflt_type) (7.9.6.1.18)
eta (3504)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%eta (float) (7.9.6.1.2)
permeability (3504)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%permeability (float) (7.9.6.1.2)
blocks (3505)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks (wall_blocks) (7.9.6.1.502)
blocks_unit (3496)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:) (wall_blocks_unit) (7.9.6.1.503)
name (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%name (string) (7.9.6.1.4)
position (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position (rz1D) (7.9.6.1.377)
r (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%r (vecflt_type) (7.9.6.1.18)
z (3371)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%z (vecflt_type) (7.9.6.1.18)
eta (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%eta (float) (7.9.6.1.2)
permeability (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%permeability (float) (7.9.6.1.2)

j_phi (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%j_phi (float) (7.9.6.1.2)
resistance (3497)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%resistance (float) (7.9.6.1.2)
radial_build (3505)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build (wall_wall2d_vessel_radial_build) (7.9.6.1.514)
r1_inb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_inb (float) (7.9.6.1.2)
r2_inb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_inb (float) (7.9.6.1.2)
r1_outb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_outb (float) (7.9.6.1.2)
r2_outb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_outb (float) (7.9.6.1.2)
raddim (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%raddim (float) (7.9.6.1.2)
nmat (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%nmat (float) (7.9.6.1.2)
composition (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%composition (vecflt_type) (7.9.6.1.18)
pow_dens_inb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_inb (float) (7.9.6.1.2)
pow_dens_outb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_outb (float) (7.9.6.1.2)
fn_flux_inb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_inb (float) (7.9.6.1.2)
fn_flux_outb (3508)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_outb (float) (7.9.6.1.2)
plasma (3493)	wall%wall2d(:)%plasma(:) (plasmaComplexType) (7.9.6.1.349)
species (3343)	wall%wall2d(:)%plasma(:)%species (vecint_type) (7.9.6.1.19)
flux (3343)	wall%wall2d(:)%plasma(:)%flux (matflt_type) (7.9.6.1.15)
b (3343)	wall%wall2d(:)%plasma(:)%b (matflt_type) (7.9.6.1.15)
energy (3343)	wall%wall2d(:)%plasma(:)%energy (matflt_type) (7.9.6.1.15)
wall_state (3493)	wall%wall2d(:)%wall_state(:) (wall_unitsComplexType) (7.9.6.1.507)
wall_type (3501)	wall%wall2d(:)%wall_state(:)%wall_type (integer) (7.9.6.1.3)
n_depo_layer (3501)	wall%wall2d(:)%wall_state(:)%n_depo_layer (integer) (7.9.6.1.3)
layers (3501)	wall%wall2d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.6.1.508)
elements (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.6.1.19)
gases (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.6.1.19)
compounds (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.6.1.19)
density (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.6.1.15)
dx (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.6.1.15)
thickness (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.6.1.18)
roughness (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.6.1.7)
porosity (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.6.1.7)
dpa (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.6.1.15)
temperature (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.6.1.15)
element_frac (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.6.1.7)
chem_comp (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.6.1.7)
bulk_D (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.6.1.9)
surface_D (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.6.1.9)
bulk_solute (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.6.1.9)
surf_solute (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.6.1.9)
pore_content (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.6.1.7)
trap_type (3502)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.6.1.483)
trap_id (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.6.1.4)
compound (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.6.1.3)
gas_species (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.6.1.3)
energy (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.6.1.2)
fill_factor (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.6.1.15)
density (3477)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.6.1.15)
eta (3501)	wall%wall2d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall2d(:)%wall_state(:)%eta%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall2d(:)%wall_state(:)%eta%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall2d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall2d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall2d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.6.1.7)
permeability (3501)	wall%wall2d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall2d(:)%wall_state(:)%permeability%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall2d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall2d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall2d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.6.1.15)

matrix (3102)	wall%wall2d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.6.1.7)
j (3501)	wall%wall2d(:)%wall_state(:)%j (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	wall%wall2d(:)%wall_state(:)%j%griduid (integer) (7.9.6.1.3)
label (3108)	wall%wall2d(:)%wall_state(:)%j%label (string) (7.9.6.1.4)
comp (3108)	wall%wall2d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall2d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall2d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall2d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall2d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall2d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	wall%wall2d(:)%wall_state(:)%j%align (vecint_type) (7.9.6.1.19)
alignid (3108)	wall%wall2d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	wall%wall2d(:)%wall_state(:)%j%basis (integer) (7.9.6.1.3)
wall3d (3065)	wall%wall3d(:) (wall3d) (7.9.6.1.501)
wall_id (3495)	wall%wall3d(:)%wall_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall3d(:)%wall_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall3d(:)%wall_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall3d(:)%wall_id%description (string) (7.9.6.1.4)
grid (3495)	wall%wall3d(:)%grid (complexgrid) (7.9.6.1.103)
uid (3097)	wall%wall3d(:)%grid%uid (integer) (7.9.6.1.3)
id (3097)	wall%wall3d(:)%grid%id (string) (7.9.6.1.4)
spaces (3097)	wall%wall3d(:)%grid%spaces(:) (complexgrid_space) (7.9.6.1.112)
geotype (3106)	wall%wall3d(:)%grid%spaces(:)%geotype (vecint_type) (7.9.6.1.19)
geotypeid (3106)	wall%wall3d(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.6.1.20)
coordtype (3106)	wall%wall3d(:)%grid%spaces(:)%coordtype (matint_type) (7.9.6.1.16)
objects (3106)	wall%wall3d(:)%grid%spaces(:)%objects(:) (objects) (7.9.6.1.318)
boundary (3312)	wall%wall3d(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.6.1.16)
neighbour (3312)	wall%wall3d(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.6.1.8)
geo (3312)	wall%wall3d(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.6.1.9)
measure (3312)	wall%wall3d(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.6.1.15)
xpoints (3106)	wall%wall3d(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.6.1.19)
subgrids (3097)	wall%wall3d(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.6.1.113)
id (3107)	wall%wall3d(:)%grid%subgrids(:)%id (string) (7.9.6.1.4)
list (3107)	wall%wall3d(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.6.1.107)
cls (3101)	wall%wall3d(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.6.1.19)
indset (3101)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.6.1.105)
range (3099)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.6.1.19)
ind (3099)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.6.1.19)
ind (3101)	wall%wall3d(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.6.1.16)
metric (3097)	wall%wall3d(:)%grid%metric (complexgrid_metric) (7.9.6.1.106)
measure (3100)	wall%wall3d(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
g11 (3100)	wall%wall3d(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g11(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g11(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.6.1.7)
g12 (3100)	wall%wall3d(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g12(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g12(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.6.1.7)
g13 (3100)	wall%wall3d(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g13(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g13(:)%subgrid (integer) (7.9.6.1.3)

scalar (3102)	wall%wall3d(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.6.1.7)
g22 (3100)	wall%wall3d(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g22(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g22(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.6.1.7)
g23 (3100)	wall%wall3d(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g23(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g23(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.6.1.7)
g33 (3100)	wall%wall3d(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%g33(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%g33(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.6.1.7)
jacobian (3100)	wall%wall3d(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.6.1.7)
geo (3097)	wall%wall3d(:)%grid%geo(:) (complexgrid_geo_global) (7.9.6.1.104)
geotype (3098)	wall%wall3d(:)%grid%geo(:)%geotype (integer) (7.9.6.1.3)
geotypeid (3098)	wall%wall3d(:)%grid%geo(:)%geotypeid (string) (7.9.6.1.4)
coordtype (3098)	wall%wall3d(:)%grid%geo(:)%coordtype (vecint_type) (7.9.6.1.19)
geo_matrix (3098)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.6.1.7)
measure (3098)	wall%wall3d(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
bases (3097)	wall%wall3d(:)%grid%bases(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	wall%wall3d(:)%grid%bases(:)%griduid (integer) (7.9.6.1.3)
label (3108)	wall%wall3d(:)%grid%bases(:)%label (string) (7.9.6.1.4)
comp (3108)	wall%wall3d(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	wall%wall3d(:)%grid%bases(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	wall%wall3d(:)%grid%bases(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	wall%wall3d(:)%grid%bases(:)%basis (integer) (7.9.6.1.3)
plasma (3495)	wall%wall3d(:)%plasma(:) (plasmaComplexType) (7.9.6.1.349)
species (3343)	wall%wall3d(:)%plasma(:)%species (vecint_type) (7.9.6.1.19)
flux (3343)	wall%wall3d(:)%plasma(:)%flux (matflt_type) (7.9.6.1.15)
b (3343)	wall%wall3d(:)%plasma(:)%b (matflt_type) (7.9.6.1.15)
energy (3343)	wall%wall3d(:)%plasma(:)%energy (matflt_type) (7.9.6.1.15)
wall_state (3495)	wall%wall3d(:)%wall_state(:) (wall_unitsComplexType) (7.9.6.1.507)

wall_type (3501)	wall%wall3d(:)%wall_state(:)%wall_type (integer) (7.9.6.1.3)
n_depo_layer (3501)	wall%wall3d(:)%wall_state(:)%n_depo_layer (integer) (7.9.6.1.3)
layers (3501)	wall%wall3d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.6.1.508)
elements (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.6.1.19)
gases (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.6.1.19)
compounds (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.6.1.19)
density (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.6.1.15)
dx (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.6.1.15)
thickness (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.6.1.18)
roughness (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.6.1.7)
porosity (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.6.1.7)
dpa (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.6.1.15)
temperature (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.6.1.15)
element_frac (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.6.1.7)
chem_comp (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.6.1.7)
bulk_D (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.6.1.9)
surface_D (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.6.1.9)
bulk_solute (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.6.1.9)
surf_solute (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.6.1.9)
pore_content (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.6.1.7)
trap_type (3502)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.6.1.483)
trap_id (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.6.1.254)
id (3248)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.6.1.4)
flag (3248)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.6.1.3)
description (3248)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.6.1.4)
compound (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.6.1.3)
gas_species (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.6.1.3)
energy (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.6.1.2)
fill_factor (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.6.1.15)
density (3477)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.6.1.15)
eta (3501)	wall%wall3d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%wall_state(:)%eta%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%wall_state(:)%eta%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.6.1.7)
permeability (3501)	wall%wall3d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%wall_state(:)%permeability%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.6.1.7)
j (3501)	wall%wall3d(:)%wall_state(:)%j (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	wall%wall3d(:)%wall_state(:)%j%griduid (integer) (7.9.6.1.3)
label (3108)	wall%wall3d(:)%wall_state(:)%j%label (string) (7.9.6.1.4)
comp (3108)	wall%wall3d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	wall%wall3d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	wall%wall3d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	wall%wall3d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	wall%wall3d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	wall%wall3d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	wall%wall3d(:)%wall_state(:)%j%align (vecint_type) (7.9.6.1.19)
alignid (3108)	wall%wall3d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	wall%wall3d(:)%wall_state(:)%j%basis (integer) (7.9.6.1.3)
basis_index (3495)	wall%wall3d(:)%basis_index (integer) (7.9.6.1.3)
wall_types (3065)	wall%wall_types(:) (wall_types) (7.9.6.1.505)
label (3499)	wall%wall_types(:)%label (string) (7.9.6.1.4)
layers (3499)	wall%wall_types(:)%layers(:) (wall_types_layers) (7.9.6.1.506)
thickness (3500)	wall%wall_types(:)%layers(:)%thickness (float) (7.9.6.1.2)
chem_comp (3500)	wall%wall_types(:)%layers(:)%chem_comp (vecflt_type) (7.9.6.1.18)
compounds (3065)	wall%compounds(:) (compound_desc) (7.9.6.1.121)

label (3115)	wall%compounds(:)%label (string) (7.9.6.1.4)
stochiometry (3115)	wall%compounds(:)%stochiometry (vecflt_type) (7.9.6.1.18)
density (3115)	wall%compounds(:)%density (float) (7.9.6.1.2)
heat_cap (3115)	wall%compounds(:)%heat_cap (float) (7.9.6.1.2)
heat_cond (3115)	wall%compounds(:)%heat_cond (vecflt_type) (7.9.6.1.18)
surf_recrate (3115)	wall%compounds(:)%surf_recrate (matflt_type) (7.9.6.1.15)
elements (3065)	wall%elements(:) (element_desc) (7.9.6.1.205)
nucindex (3199)	wall%elements(:)%nucindex (integer) (7.9.6.1.3)
label (3199)	wall%elements(:)%label (string) (7.9.6.1.4)
zn (3199)	wall%elements(:)%zn (float) (7.9.6.1.2)
amn (3199)	wall%elements(:)%amn (float) (7.9.6.1.2)
compositions (3065)	wall%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	wall%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	wall%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	wall%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	wall%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	wall%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	wall%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	wall%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	wall%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	wall%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	wall%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	wall%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	wall%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	wall%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	wall%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	wall%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	wall%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	wall%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	wall%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	wall%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	wall%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	wall%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	wall%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	wall%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	wall%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	wall%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	wall%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	wall%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	wall%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)
zmax (3198)	wall%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	wall%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	wall%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	wall%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	wall%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	wall%compositions%signature%description (string) (7.9.6.1.4)
codeparam (3065)	wall%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	wall%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	wall%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	wall%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	wall%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	wall%codeparam%output_flag (integer) (7.9.6.1.3)
time (3065)	wall%time (float) (7.9.6.1.2)

7.9.6.2.50 waves

datainfo (3066)	waves%datainfo (datainfo) (7.9.6.1.154)
dataprovider (3148)	waves%datainfo%dataprovider (string) (7.9.6.1.4)
putdate (3148)	waves%datainfo%putdate (string) (7.9.6.1.4)
source (3148)	waves%datainfo%source (string) (7.9.6.1.4)

comment (3148)	waves%datainfo%comment (string) (7.9.6.1.4)
cocos (3148)	waves%datainfo%cocos (integer) (7.9.6.1.3)
id (3148)	waves%datainfo%id (integer) (7.9.6.1.3)
isref (3148)	waves%datainfo%isref (integer) (7.9.6.1.3)
whatref (3148)	waves%datainfo%whatref (whatref) (7.9.6.1.524)
user (3518)	waves%datainfo%whatref%user (string) (7.9.6.1.4)
machine (3518)	waves%datainfo%whatref%machine (string) (7.9.6.1.4)
shot (3518)	waves%datainfo%whatref%shot (integer) (7.9.6.1.3)
run (3518)	waves%datainfo%whatref%run (integer) (7.9.6.1.3)
occurrence (3518)	waves%datainfo%whatref%occurrence (integer) (7.9.6.1.3)
putinfo (3148)	waves%datainfo%putinfo (putinfo) (7.9.6.1.360)
putmethod (3354)	waves%datainfo%putinfo%putmethod (string) (7.9.6.1.4)
putaccess (3354)	waves%datainfo%putinfo%putaccess (string) (7.9.6.1.4)
putlocation (3354)	waves%datainfo%putinfo%putlocation (string) (7.9.6.1.4)
rights (3354)	waves%datainfo%putinfo%rights (string) (7.9.6.1.4)
coherentwave (3066)	waves%coherentwave(:) (coherentwave) (7.9.6.1.100)
wave_id (3094)	waves%coherentwave(:)%wave_id (enum_instance) (7.9.6.1.207)
type (3201)	waves%coherentwave(:)%wave_id%type (identifier) (7.9.6.1.254)
id (3248)	waves%coherentwave(:)%wave_id%type%id (string) (7.9.6.1.4)
flag (3248)	waves%coherentwave(:)%wave_id%type%flag (integer) (7.9.6.1.3)
description (3248)	waves%coherentwave(:)%wave_id%type%description (string) (7.9.6.1.4)
name (3201)	waves%coherentwave(:)%wave_id%name (string) (7.9.6.1.4)
index (3201)	waves%coherentwave(:)%wave_id%index (integer) (7.9.6.1.3)
composition (3094)	waves%coherentwave(:)%composition (composition) (7.9.6.1.116)
amn (3110)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.6.1.18)
zn (3110)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.6.1.18)
zion (3110)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.6.1.18)
imp_flag (3110)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.6.1.19)
label (3110)	waves%coherentwave(:)%composition%label (vecstring_type) (7.9.6.1.20)
compositions (3094)	waves%coherentwave(:)%compositions (compositions_type) (7.9.6.1.120)
nuclei (3114)	waves%coherentwave(:)%compositions%nuclei(:) (nuclei) (7.9.6.1.317)
zn (3311)	waves%coherentwave(:)%compositions%nuclei(:)%zn (float) (7.9.6.1.2)
amn (3311)	waves%coherentwave(:)%compositions%nuclei(:)%amn (float) (7.9.6.1.2)
label (3311)	waves%coherentwave(:)%compositions%nuclei(:)%label (string) (7.9.6.1.4)
ions (3114)	waves%coherentwave(:)%compositions%ions(:) (ions) (7.9.6.1.259)
nucindex (3253)	waves%coherentwave(:)%compositions%ions(:)%nucindex (integer) (7.9.6.1.3)
zion (3253)	waves%coherentwave(:)%compositions%ions(:)%zion (float) (7.9.6.1.2)
imp_flag (3253)	waves%coherentwave(:)%compositions%ions(:)%imp_flag (integer) (7.9.6.1.3)
label (3253)	waves%coherentwave(:)%compositions%ions(:)%label (string) (7.9.6.1.4)
impurities (3114)	waves%coherentwave(:)%compositions%impurities(:) (impurities) (7.9.6.1.256)
nucindex (3250)	waves%coherentwave(:)%compositions%impurities(:)%nucindex (integer) (7.9.6.1.3)
i_ion (3250)	waves%coherentwave(:)%compositions%impurities(:)%i_ion (integer) (7.9.6.1.3)
nzimp (3250)	waves%coherentwave(:)%compositions%impurities(:)%nzimp (integer) (7.9.6.1.3)
zmin (3250)	waves%coherentwave(:)%compositions%impurities(:)%zmin (vecflt_type) (7.9.6.1.18)
zmax (3250)	waves%coherentwave(:)%compositions%impurities(:)%zmax (vecflt_type) (7.9.6.1.18)
label (3250)	waves%coherentwave(:)%compositions%impurities(:)%label (vecstring_type) (7.9.6.1.20)
neutralscomp (3114)	waves%coherentwave(:)%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.6.1.119)
neutcomp (3113)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.6.1.118)
nucindex (3112)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.6.1.3)
multiplicity (3112)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.6.1.3)
type (3113)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:) (identifier) (7.9.6.1.254)
id (3248)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%id (string) (7.9.6.1.4)
flag (3248)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.6.1.3)
description (3248)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%description (string) (7.9.6.1.4)
label (3113)	waves%coherentwave(:)%compositions%neutralscomp(:)%label (string) (7.9.6.1.4)
edgespecies (3114)	waves%coherentwave(:)%compositions%edgespecies(:) (edgespecies) (7.9.6.1.204)
nucindex (3198)	waves%coherentwave(:)%compositions%edgespecies(:)%nucindex (integer) (7.9.6.1.3)
zmin (3198)	waves%coherentwave(:)%compositions%edgespecies(:)%zmin (float) (7.9.6.1.2)

zmax (3198)	waves%coherentwave(:)%compositions%edgespecies(:)%zmax (float) (7.9.6.1.2)
label (3198)	waves%coherentwave(:)%compositions%edgespecies(:)%label (string) (7.9.6.1.4)
signature (3114)	waves%coherentwave(:)%compositions%signature (identifier) (7.9.6.1.254)
id (3248)	waves%coherentwave(:)%compositions%signature%id (string) (7.9.6.1.4)
flag (3248)	waves%coherentwave(:)%compositions%signature%flag (integer) (7.9.6.1.3)
description (3248)	waves%coherentwave(:)%compositions%signature%description (string) (7.9.6.1.4)
global_param (3094)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.6.1.516)
name (3510)	waves%coherentwave(:)%global_param%name (string) (7.9.6.1.4)
type (3510)	waves%coherentwave(:)%global_param%type (string) (7.9.6.1.4)
f_assumption (3510)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.6.1.19)
code_type (3510)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.6.1.3)
frequency (3510)	waves%coherentwave(:)%global_param%frequency (float) (7.9.6.1.2)
ntor (3510)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.6.1.19)
power_tot (3510)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.6.1.2)
p_frac_ntor (3510)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.6.1.18)
pow_e (3510)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.6.1.2)
pow_i (3510)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.6.1.18)
pow_z (3510)	waves%coherentwave(:)%global_param%pow_z (matflt_type) (7.9.6.1.15)
pow_fe (3510)	waves%coherentwave(:)%global_param%pow_fe (float) (7.9.6.1.2)
pow_fi (3510)	waves%coherentwave(:)%global_param%pow_fi (vecflt_type) (7.9.6.1.18)
pow_fz (3510)	waves%coherentwave(:)%global_param%pow_fz (matflt_type) (7.9.6.1.15)
pow_ntor_e (3510)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.6.1.18)
pow_ntor_i (3510)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.6.1.15)
pow_ntor_z (3510)	waves%coherentwave(:)%global_param%pow_ntor_z (array3dflt_type) (7.9.6.1.7)
pow_ntor_fe (3510)	waves%coherentwave(:)%global_param%pow_ntor_fe (vecflt_type) (7.9.6.1.18)
pow_ntor_fi (3510)	waves%coherentwave(:)%global_param%pow_ntor_fi (matflt_type) (7.9.6.1.15)
pow_ntor_fz (3510)	waves%coherentwave(:)%global_param%pow_ntor_fz (array3dflt_type) (7.9.6.1.7)
cur_tor (3510)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.6.1.2)
cur_tor_ntor (3510)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.6.1.18)
mag_axis (3510)	waves%coherentwave(:)%global_param%mag_axis (rz0D) (7.9.6.1.376)
r (3370)	waves%coherentwave(:)%global_param%mag_axis%r (float) (7.9.6.1.2)
z (3370)	waves%coherentwave(:)%global_param%mag_axis%z (float) (7.9.6.1.2)
toroid_field (3510)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.6.1.80)
r0 (3074)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.6.1.2)
b0 (3074)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.6.1.2)
grid_1d (3094)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.6.1.517)
rho_tor (3511)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.6.1.18)
rho_tor_norm (3511)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.6.1.18)
psi (3511)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.6.1.18)
volume (3511)	waves%coherentwave(:)%grid_1d%volume (vecflt_type) (7.9.6.1.18)
area (3511)	waves%coherentwave(:)%grid_1d%area (vecflt_type) (7.9.6.1.18)
grid_2d (3094)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.6.1.518)
grid_type (3512)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.6.1.3)
rho_tor_norm (3512)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.6.1.15)
rho_tor (3512)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.6.1.15)
psi (3512)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.6.1.15)
theta (3512)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.6.1.15)
r (3512)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.6.1.15)
z (3512)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.6.1.15)
theta_info (3512)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.6.1.475)
angl_type (3469)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.6.1.3)
th2th_pol (3469)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.6.1.15)
profiles_1d (3094)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.6.1.519)
powd_tot (3513)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.6.1.18)
powd_e (3513)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.6.1.18)
powd_i (3513)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.6.1.15)
powd_z (3513)	waves%coherentwave(:)%profiles_1d%powd_z (array3dflt_type) (7.9.6.1.7)
powd_fe (3513)	waves%coherentwave(:)%profiles_1d%powd_fe (vecflt_type) (7.9.6.1.18)
powd_fi (3513)	waves%coherentwave(:)%profiles_1d%powd_fi (matflt_type) (7.9.6.1.15)
powd_fz (3513)	waves%coherentwave(:)%profiles_1d%powd_fz (array3dflt_type) (7.9.6.1.7)
powd_ntor (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.6.1.15)

powd_ntor_e (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.6.1.15)
powd_ntor_i (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.6.1.7)
powd_ntor_z (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_z (array4dflt_type) (7.9.6.1.9)
powd_ntor_fe (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_fe (matflt_type) (7.9.6.1.15)
powd_ntor_fi (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_fi (array3dflt_type) (7.9.6.1.7)
powd_ntor_fz (3513)	waves%coherentwave(:)%profiles_1d%powd_ntor_fz (array4dflt_type) (7.9.6.1.9)
curd_tor (3513)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.6.1.18)
curd_torntor (3513)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.6.1.15)
pow_tot (3513)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.6.1.18)
pow_e (3513)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.6.1.18)
pow_i (3513)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.6.1.15)
pow_z (3513)	waves%coherentwave(:)%profiles_1d%pow_z (array3dflt_type) (7.9.6.1.7)
pow_fe (3513)	waves%coherentwave(:)%profiles_1d%pow_fe (vecflt_type) (7.9.6.1.18)
pow_fi (3513)	waves%coherentwave(:)%profiles_1d%pow_fi (matflt_type) (7.9.6.1.15)
pow_fz (3513)	waves%coherentwave(:)%profiles_1d%pow_fz (array3dflt_type) (7.9.6.1.7)
pow_ntor (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor (matflt_type) (7.9.6.1.15)
pow_ntor_e (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.6.1.15)
pow_ntor_i (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.6.1.7)
pow_ntor_z (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_z (array3dflt_type) (7.9.6.1.7)
pow_ntor_fe (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_fe (matflt_type) (7.9.6.1.15)
pow_ntor_fi (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_fi (array3dflt_type) (7.9.6.1.7)
pow_ntor_fz (3513)	waves%coherentwave(:)%profiles_1d%pow_ntor_fz (array3dflt_type) (7.9.6.1.7)
curd_par (3513)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.6.1.18)
curd_parntor (3513)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.6.1.15)
cur_tor (3513)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.6.1.18)
cur_tor_ntor (3513)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.6.1.15)
e_plus_ave (3513)	waves%coherentwave(:)%profiles_1d%e_plus_ave (matflt_type) (7.9.6.1.15)
e_minus_ave (3513)	waves%coherentwave(:)%profiles_1d%e_minus_ave (matflt_type) (7.9.6.1.15)
e_para_ave (3513)	waves%coherentwave(:)%profiles_1d%e_para_ave (matflt_type) (7.9.6.1.15)
k_perp_ave (3513)	waves%coherentwave(:)%profiles_1d%k_perp_ave (matflt_type) (7.9.6.1.15)
profiles_2d (3094)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.6.1.520)
powd_tot (3514)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.6.1.15)
powd_e (3514)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.6.1.15)
powd_i (3514)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.6.1.7)
powd_z (3514)	waves%coherentwave(:)%profiles_2d%powd_z (array4dflt_type) (7.9.6.1.9)
powd_fe (3514)	waves%coherentwave(:)%profiles_2d%powd_fe (matflt_type) (7.9.6.1.15)
powd_fi (3514)	waves%coherentwave(:)%profiles_2d%powd_fi (array3dflt_type) (7.9.6.1.7)
powd_fz (3514)	waves%coherentwave(:)%profiles_2d%powd_fz (array4dflt_type) (7.9.6.1.9)
powd_ntor (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.6.1.7)
powd_ntor_e (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.6.1.7)
powd_ntor_i (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.6.1.9)
powd_ntor_z (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_z (array5dflt_type) (7.9.6.1.10)
powd_ntor_fe (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_fe (array3dflt_type) (7.9.6.1.7)
powd_ntor_fi (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_fi (array4dflt_type) (7.9.6.1.9)
powd_ntor_fz (3514)	waves%coherentwave(:)%profiles_2d%powd_ntor_fz (array5dflt_type) (7.9.6.1.10)
powd_iharm (3514)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.6.1.10)
beamtracing (3094)	waves%coherentwave(:)%beamtracing(:) (beamtracing) (7.9.6.1.87)
npoints (3081)	waves%coherentwave(:)%beamtracing(:)%npoints (integer) (7.9.6.1.3)
power (3081)	waves%coherentwave(:)%beamtracing(:)%power (float) (7.9.6.1.2)
dnpar (3081)	waves%coherentwave(:)%beamtracing(:)%dnpar (vecflt_type) (7.9.6.1.18)
length (3081)	waves%coherentwave(:)%beamtracing(:)%length (vecflt_type) (7.9.6.1.18)
position (3081)	waves%coherentwave(:)%beamtracing(:)%position (waves_rtposition) (7.9.6.1.521)
r (3515)	waves%coherentwave(:)%beamtracing(:)%position%r (vecflt_type) (7.9.6.1.18)
z (3515)	waves%coherentwave(:)%beamtracing(:)%position%z (vecflt_type) (7.9.6.1.18)
phi (3515)	waves%coherentwave(:)%beamtracing(:)%position%phi (vecflt_type) (7.9.6.1.18)
psi (3515)	waves%coherentwave(:)%beamtracing(:)%position%psi (vecflt_type) (7.9.6.1.18)
theta (3515)	waves%coherentwave(:)%beamtracing(:)%position%theta (vecflt_type) (7.9.6.1.18)
wavevector (3081)	waves%coherentwave(:)%beamtracing(:)%wavevector (waves_rtwavevector) (7.9.6.1.522)
kr (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%kr (vecflt_type) (7.9.6.1.18)
kz (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%kz (vecflt_type) (7.9.6.1.18)
kphi (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%kphi (vecflt_type) (7.9.6.1.18)

npar (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%npar (vecflt_type) (7.9.6.1.18)
nperp (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%nperp (vecflt_type) (7.9.6.1.18)
ntor (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%ntor (vecflt_type) (7.9.6.1.18)
var_ntor (3516)	waves%coherentwave(:)%beamtracing(:)%wavevector%var_ntor (integer) (7.9.6.1.3)
polarization (3081)	waves%coherentwave(:)%beamtracing(:)%polarization (polarization) (7.9.6.1.353)
epol_p_re (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_re (vecflt_type) (7.9.6.1.18)
epol_p_im (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_im (vecflt_type) (7.9.6.1.18)
epol_m_re (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_re (vecflt_type) (7.9.6.1.18)
epol_m_im (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_im (vecflt_type) (7.9.6.1.18)
epol_par_re (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_re (vecflt_type) (7.9.6.1.18)
epol_par_im (3347)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_im (vecflt_type) (7.9.6.1.18)
powerflow (3081)	waves%coherentwave(:)%beamtracing(:)%powerflow (powerflow) (7.9.6.1.356)
phi_perp (3350)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_perp (vecflt_type) (7.9.6.1.18)
phi_par (3350)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_par (vecflt_type) (7.9.6.1.18)
power_e (3350)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_e (vecflt_type) (7.9.6.1.18)
power_i (3350)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_i (matflt_type) (7.9.6.1.15)
fullwave (3094)	waves%coherentwave(:)%fullwave (fullwave) (7.9.6.1.228)
grid (3222)	waves%coherentwave(:)%fullwave%grid (complexgrid) (7.9.6.1.103)
uid (3097)	waves%coherentwave(:)%fullwave%grid%uid (integer) (7.9.6.1.3)
id (3097)	waves%coherentwave(:)%fullwave%grid%id (string) (7.9.6.1.4)
spaces (3097)	waves%coherentwave(:)%fullwave%grid%spaces(:) (complexgrid_space) (7.9.6.1.112)
geotype (3106)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotype (vecint_type) (7.9.6.1.19)
geotypeid (3106)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotypeid (vecstring_type) (7.9.6.1.20)
coordtype (3106)	waves%coherentwave(:)%fullwave%grid%spaces(:)%coordtype (matint_type) (7.9.6.1.16)
objects (3106)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:) (objects) (7.9.6.1.318)
boundary (3312)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.6.1.16)
neighbour (3312)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.6.1.8)
geo (3312)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.6.1.9)
measure (3312)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.6.1.15)
xpoints (3106)	waves%coherentwave(:)%fullwave%grid%spaces(:)%xpoints (vecint_type) (7.9.6.1.19)
subgrids (3097)	waves%coherentwave(:)%fullwave%grid%subgrids(:) (complexgrid_subgrid) (7.9.6.1.113)
id (3107)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%id (string) (7.9.6.1.4)
list (3107)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.6.1.107)
cls (3101)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.6.1.19)
indset (3101)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.6.1.105)
range (3099)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.6.1.19)
ind (3099)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.6.1.19)
ind (3101)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.6.1.16)
metric (3097)	waves%coherentwave(:)%fullwave%grid%metric (complexgrid_metric) (7.9.6.1.106)
measure (3100)	waves%coherentwave(:)%fullwave%grid%metric%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
g11 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g11(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.6.1.7)
g12 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g12(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%griduid (integer) (7.9.6.1.3)

subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.6.1.7)
g13 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g13(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.6.1.7)
g22 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g22(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.6.1.7)
g23 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g23(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.6.1.7)
g33 (3100)	waves%coherentwave(:)%fullwave%grid%metric%g33(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.6.1.7)
jacobian (3100)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.6.1.7)
geo (3097)	waves%coherentwave(:)%fullwave%grid%geo(:) (complexgrid_geo_global) (7.9.6.1.104)
geotype (3098)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotype (integer) (7.9.6.1.3)
geotypeid (3098)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotypeid (string) (7.9.6.1.4)
coordtype (3098)	waves%coherentwave(:)%fullwave%grid%geo(:)%coordtype (vecint_type) (7.9.6.1.19)
geo_matrix (3098)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.6.1.7)
measure (3098)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.6.1.108)
griduid (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.6.1.7)
bases (3097)	waves%coherentwave(:)%fullwave%grid%bases(:) (complexgrid_vector) (7.9.6.1.114)
griduid (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%griduid (integer) (7.9.6.1.3)
label (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%label (string) (7.9.6.1.4)
comp (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.6.1.108)

griduid (3102)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%griduid (integer) (7.9.6.1.3)
subgrid (3102)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%subgrid (integer) (7.9.6.1.3)
scalar (3102)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.6.1.18)
vector (3102)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.6.1.15)
matrix (3102)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.6.1.7)
align (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%align (vecint_type) (7.9.6.1.19)
alignid (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%alignid (vecstring_type) (7.9.6.1.20)
basis (3108)	waves%coherentwave(:)%fullwave%grid%bases(:)%basis (integer) (7.9.6.1.3)
e_components (3222)	waves%coherentwave(:)%fullwave%e_components (e_components) (7.9.6.1.192)
e_plus (3186)	waves%coherentwave(:)%fullwave%e_components%e_plus (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%e_plus%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%e_plus%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix (array3dcplx_type) (7.9.6.1.6)
e_minus (3186)	waves%coherentwave(:)%fullwave%e_components%e_minus (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%e_minus%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%e_minus%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix (array3dcplx_type) (7.9.6.1.6)
e_para (3186)	waves%coherentwave(:)%fullwave%e_components%e_para (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%e_para%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%e_para%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%e_para%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix (array3dcplx_type) (7.9.6.1.6)
e_norm (3186)	waves%coherentwave(:)%fullwave%e_components%e_norm (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%e_norm%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%e_norm%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix (array3dcplx_type) (7.9.6.1.6)
e_binorm (3186)	waves%coherentwave(:)%fullwave%e_components%e_binorm (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%e_binorm%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%e_binorm%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix (array3dcplx_type) (7.9.6.1.6)
b_norm (3186)	waves%coherentwave(:)%fullwave%e_components%b_norm (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%b_norm%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%b_norm%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix (array3dcplx_type) (7.9.6.1.6)
b_binorm (3186)	waves%coherentwave(:)%fullwave%e_components%b_binorm (complexgrid_scalar_cplx) (7.9.6.1.109)

griduid (3103)	waves%coherentwave(:)%fullwave%e_components%b_binorm%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%b_binorm%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix (array3dcplx_type) (7.9.6.1.6)
b_para (3186)	waves%coherentwave(:)%fullwave%e_components%b_para (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%b_para%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%b_para%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%b_para%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix (array3dcplx_type) (7.9.6.1.6)
k_perp (3186)	waves%coherentwave(:)%fullwave%e_components%k_perp (complexgrid_scalar_cplx) (7.9.6.1.109)
griduid (3103)	waves%coherentwave(:)%fullwave%e_components%k_perp%griduid (integer) (7.9.6.1.3)
subgrid (3103)	waves%coherentwave(:)%fullwave%e_components%k_perp%subgrid (integer) (7.9.6.1.3)
scalar (3103)	waves%coherentwave(:)%fullwave%e_components%k_perp%scalar (veccplx_type) (7.9.6.1.17)
vector (3103)	waves%coherentwave(:)%fullwave%e_components%k_perp%vector (matcplx_type) (7.9.6.1.14)
matrix (3103)	waves%coherentwave(:)%fullwave%e_components%k_perp%matrix (array3dcplx_type) (7.9.6.1.6)
pol_decomp (3222)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.6.1.351)
mpol (3345)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.6.1.19)
e_plus (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.6.1.7)
e_plus_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.6.1.7)
e_minus (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.6.1.7)
e_minus_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.6.1.7)
e_norm (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.6.1.7)
e_norm_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.6.1.7)
e_binorm (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.6.1.7)
e_binorm_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.6.1.7)
e_para (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.6.1.7)
e_para_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.6.1.7)
b_norm (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.6.1.7)
b_norm_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.6.1.7)
b_binorm (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.6.1.7)
b_binorm_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array3dflt_type) (7.9.6.1.7)
b_para (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.6.1.7)
b_para_ph (3345)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.6.1.7)
k_perp (3345)	waves%coherentwave(:)%fullwave%pol_decomp%k_perp (array3dflt_type) (7.9.6.1.7)
local (3222)	waves%coherentwave(:)%fullwave%local (local) (7.9.6.1.276)
e_plus (3270)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.6.1.7)
e_plus_ph (3270)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.6.1.7)
e_minus (3270)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.6.1.7)
e_minus_ph (3270)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.6.1.7)
e_norm (3270)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.6.1.8)
enorm_ph (3270)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.6.1.7)
e_binorm (3270)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.6.1.7)
e_binorm_ph (3270)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.6.1.7)
e_para (3270)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.6.1.7)
e_para_ph (3270)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.6.1.7)
b_norm (3270)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.6.1.7)
b_norm_ph (3270)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.6.1.7)
b_binorm (3270)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.6.1.7)
b_binorm_ph (3270)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.6.1.7)
b_para (3270)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.6.1.7)
b_para_ph (3270)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.6.1.7)
k_perp (3270)	waves%coherentwave(:)%fullwave%local%k_perp (array3dflt_type) (7.9.6.1.7)
codeparam (3094)	waves%coherentwave(:)%codeparam (codeparam) (7.9.6.1.98)

codename (3092)	waves%coherentwave(:)%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.6.1.3)
codeparam (3066)	waves%codeparam (codeparam) (7.9.6.1.98)
codename (3092)	waves%codeparam%codename (string) (7.9.6.1.4)
codeversion (3092)	waves%codeparam%codeversion (string) (7.9.6.1.4)
parameters (3092)	waves%codeparam%parameters (string) (7.9.6.1.4)
output_diag (3092)	waves%codeparam%output_diag (string) (7.9.6.1.4)
output_flag (3092)	waves%codeparam%output_flag (integer) (7.9.6.1.3)
time (3066)	waves%time (float) (7.9.6.1.2)

cpoinstances [566]

7.9.7 4.10b.10

7.9.7.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.7.1.1 Primitive Types

Clear definitions required.

7.9.7.1.2 float

7.9.7.1.3 integer

7.9.7.1.4 string

7.9.7.1.5 Array Types

Clear definitions required.

7.9.7.1.6 array3dcplx_type

Example: Complex numbers (3D)

7.9.7.1.7 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.7.1.8 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.7.1.9 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.7.1.10 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.7.1.11 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

[566] https://www.efda-itm.eu/ITM/html/cpoinstances__4.10b.8.html

7.9.7.1.12 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.7.1.13 cplx_type

Example: Complex number (scalar)

7.9.7.1.14 matcplx_type

Example: Complex numbers (matrix)

7.9.7.1.15 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.7.1.16 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.7.1.17 veccplx_type

Example: Complex numbers (vector)

7.9.7.1.18 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.7.1.19 vecint_type

Example: [1,2,3]

7.9.7.1.20 vecstring_type

Example: ["aaa","bb","cccc"]

7.9.7.1.21 Structure Types

7.9.7.1.22 CPO Structures

7.9.7.1.23 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
version	string (7.9.7.1.4)	Version of the data.
source	string (7.9.7.1.4)	Source of the data.
zn	integer (7.9.7.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.7.1.2)	Mass of atom [amu]
process(:)	amns_processType (7.9.7.1.74)	Identifiers for processes; Vector(nprocs)
tables(:)	tables (7.9.7.1.442)	Rate tables for processes. Vector(nprocs)
tables_coord(:)	tables_coord (7.9.7.1.443)	Array of possible coordinate systems for tables. Vector(ncoordbases)
version_ind(:)	version_ind (7.9.7.1.501)	Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.24 antennas

Antenna systems for heating and current drive in the electron cyclotron (EC), ion cylcotron (IC) and lower hybrid (LH) frequencies. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
antenna_ec(:)	antenna_ec (7.9.7.1.75)	Vector of Electron Cyclotron antennas. Time-dependent
antenna_ic(:)	antenna_ic (7.9.7.1.76)	Vector of Ion Cyclotron antennas. Time-dependent
antenna_lh(:)	antenna_lh (7.9.7.1.77)	Vector of Lower Hybrid antennas. Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.25 bb_shield

Breeding blanket and relevant shield. CPO. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
type	string (7.9.7.1.4)	Type of breeding blanket (HCLL, DCLL, HCPB, ...). String
limits	limits (7.9.7.1.274)	Limits
li6_enrich	float (7.9.7.1.2)	Lithium 6 enrichement (at%).
geom	geom (7.9.7.1.247)	Geometry between components
neut_results	neut_results (7.9.7.1.310)	Neutronic results
shield	shield (7.9.7.1.419)	Shield
bb	bb (7.9.7.1.81)	Breeding blanket
hcll	hcll (7.9.7.1.252)	Data specific to HCLL blanket concept
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.26 compositionc

Species description (ions, impurities, neutrals).

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.27 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coredelta_values (7.9.7.1.125)	Description of the delta term for the various origins. Array of structure (ndelta). Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.28 corefast

Flux surface averaged fluid measures and transport coefficients of fast particle populations. Here the concept of a fast particle population refer to the difference between the total population and the thermal population. This separation of populations may in practise be achieved differently depending on the physics model. A description of how the separation is achieved should therefore be provided in corefast/values/filter/. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	corefast_values (7.9.7.1.127)	Description of the fast particle terms of various origins. Array of structure (nfast). Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.29 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into "bundles". Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.7.1.19)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
atomic_data	vecstring_type (7.9.7.1.20)	Reference for the atomic data used for each impurity. Array of strings (nimp)
impurity(:)	impurity_type (7.9.7.1.259)	Array(nimp). Time-dependent
diagnostic	coreimpurediag_type (7.9.7.1.139)	NO DOCS
diagnosticsum	coreimpurediag_sum (7.9.7.1.137)	NO DOCS
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.

7.9.7.1.30 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
neutcompo	composition_neutrals (7.9.7.1.117)	Description of neutrals species. OBSOLESCENT
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.

member	type	description
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
profiles(:)	neutral_complex_type (7.9.7.1.311)	Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent
ioncoeff(:)	coefficients_neutrals (7.9.7.1.99)	Recycling and sputtering coefficients for each ion in composition. Array(nion). Time-dependent
impcoeff(:)	impcoeff (7.9.7.1.257)	Recycling and sputtering coefficients for each impurity ion in desc_impur. Array(nimp). Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.31 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last radial grid point, which is quasi at the Last Closed Flux Surface); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.7.1.18)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.7.1.480)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
psi	psi (7.9.7.1.362)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.7.1.128)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.7.1.129)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.7.1.128)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.7.1.129)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.7.1.129)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.7.1.360)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.7.1.250)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.32 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	coresource_values (7.9.7.1.146)	Description of the source terms of various origins. Array of structure (nsource). Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.33 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coretransp_values (7.9.7.1.150)	Description of transport term coming from various origins. Array of structure (ntransp). Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.34 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	cxsetup (7.9.7.1.153)	diagnostic setup information
measure	cxmeasure (7.9.7.1.152)	Measured values
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.35 distribution

Datastructure for representing data associated with a distribution function one or many particle species. This structure is specifically designed to handle non-Maxwellian distribution function generated during heating and current drive, typically solved using a Fokker-Planck calculation perturbed by a heating scheme (e.g. IC, EC, LH, NBI, or alpha heating) and then relaxed by Coloumb collisions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
distri_vec(:)	distri_vec (7.9.7.1.187)	Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.36 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
source(:)	distsource_source (7.9.7.1.192)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; scalar

7.9.7.1.37 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	ecesetup (7.9.7.1.196)	diagnostic setup information

member	type	description
measure	ecemeasure (7.9.7.1.195)	Measured values
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.38 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
grid	complexgrid (7.9.7.1.103)	Grid description
species(:)	species_desc (7.9.7.1.431)	Description of ion species. Array of structures(nspecies)
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
fluid	edge_fluid (7.9.7.1.197)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.7.1.203)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.39 efcc

Error field correction coils. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
coil(:)	coil (7.9.7.1.101)	Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.40 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
eqconstraint	eqconstraint (7.9.7.1.210)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.7.1.211)	Geometry of the plasma boundary
flush	flush (7.9.7.1.224)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.7.1.249)	0d output parameters
profiles_1d	profiles_1d (7.9.7.1.361)	output profiles as a function of the poloidal flux
profiles_2d(:)	equilibrium_profiles_2d (7.9.7.1.216)	Output profiles in the poloidal plane. Time-dependent
coord_sys	coord_sys (7.9.7.1.122)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.41 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
fus_product(:)	fusiondiag_fus_product (7.9.7.1.243)	Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.42 halphadiag

H/D alpha line integrated diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	halpha_setup (7.9.7.1.251)	setup for the lines of sight of the line integrated measurement
intensity	exp1D (7.9.7.1.218)	Measured light intensity (a.u.). Time-dependent. Vector (nlos)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.43 heat_sources

Description of a set of heat sources or sinks. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
sources(:)	calorimetry_heat_source (7.9.7.1.94)	Heat sources. Array of structure (nheat_source)
sinks(:)	calorimetry_heat_source (7.9.7.1.94)	Heat sinks. Array of structure (nheat_sink)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.44 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
expression	string (7.9.7.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.7.1.417)	Geometric description of the lines of sight
measure	exp1D (7.9.7.1.218)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.45 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
desc_iron	desc_iron (7.9.7.1.158)	Description of the iron segments
magnetise	magnetise (7.9.7.1.281)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.46 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
potential	lang_measure (7.9.7.1.265)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.7.1.265)	Biasing potential [V]. All children are vectors(bias)
jsat	lang_measure (7.9.7.1.265)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.7.1.264)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.7.1.264)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.7.1.264)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.47 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
name	vecstring_type (7.9.7.1.20)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.7.1.20)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.7.1.18)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.7.1.19)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.7.1.386)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.7.1.434)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.7.1.269)	Beam characteristics
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.48 lithiumdiag

Lithium Beam Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	lithsetup (7.9.7.1.277)	diagnostic setup information
measure	lithmeasure (7.9.7.1.276)	Measured values
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.49 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
ip	exp0D (7.9.7.1.217)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.7.1.217)	Diamagnetic flux [Wb]; Time-dependent; Scalar
diamagener	exp0D (7.9.7.1.217)	Diamagnetic energy [J]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.7.1.225)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.7.1.93)	Poloidal field probes
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.50 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
n(:)	mhd_mode (7.9.7.1.285)	Vector of toroidal mode numbers; Structure Array (ntor); Time-dependent
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.51 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item

member	type	description
polarimetry	polarimetry (7.9.7.1.355)	This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.
spectral	spectral (7.9.7.1.433)	This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.52 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
nbi_unit(:)	nbi_unit (7.9.7.1.307)	Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.53 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.7.1.157)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
ni_neo	transcoefion (7.9.7.1.484)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.7.1.482)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo(:)	transcoefimp (7.9.7.1.483)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.7.1.484)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.7.1.482)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo(:)	transcoefimp (7.9.7.1.483)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.7.1.482)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.7.1.18)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.7.1.18)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.7.1.18)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.7.1.15)	Neoclassical poloidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
vtor	matflt_type (7.9.7.1.15)	Neoclassical toroidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
mach	matflt_type (7.9.7.1.15)	Mach number of each ion species. Time-dependent. Matrix(nrho,nion).
utheta_e	vecflt_type (7.9.7.1.18)	Electron poloidal flow [m/s]. Time-dependent. Vector(nrho).
utheta_i	matflt_type (7.9.7.1.15)	Ion poloidal flow [m/s]. Time-dependent. Matrix(nrho,nion).
viscosity_par	matflt_type (7.9.7.1.15)	Ion parallel viscosity [?]. Time-dependent. Matrix(nrho,nion).
impurity(:)	neoclassic_impurity (7.9.7.1.309)	Array(nimp). Time-dependent
fext	array3dflt_type (7.9.7.1.7)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.7.1.18)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.54 ntm

Description of a Neoclassical Tearing Mode and its evolution.Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
mode(:)	ntm_mode (7.9.7.1.314)	List of the various NTM modes appearing during the simulation. If a mode appears several times, use several indices in this arra of structure with the same m,n values. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.55 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
com	com (7.9.7.1.102)	COM (Constants Of Motion) parameters identifying an orbit
trace	trace (7.9.7.1.481)	Position of particle in 5D space (3D in real and 2D in velocity).
global_param	orbit_global_param (7.9.7.1.325)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.56 pellets

Description of pellets. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
compositions	compositions_type (7.9.7.1.120)	Pellet composition
pellet(:)	pellet (7.9.7.1.333)	Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.57 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
pfcoils	pfcoils (7.9.7.1.343)	Active poloidal field coils
pfpassive	pfpassive (7.9.7.1.347)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.7.1.342)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.7.1.349)	PF power supplies
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.58 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
expression	string (7.9.7.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.7.1.417)	Geometric description of the lines of sight
measure	exp1D (7.9.7.1.218)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.59 power_conv

Power conversion system. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
cycle_type	string (7.9.7.1.4)	Type of cycle. String
circuits(:)	circuits (7.9.7.1.95)	Description of the circuit of the power conversion system. Array of structure. (ncircuits).
power_recirc	float (7.9.7.1.2)	Recirculated electric power (input to the power conversion actor). [W] Scalar
power_net	float (7.9.7.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.7.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar
efficiency	float (7.9.7.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.60 reflectomet

Reflectometry CPO, contains antennas and received signals; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
refl_receive(:)	refl_receive (7.9.7.1.370)	Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.
antennas(:)	reflectometry_antennas (7.9.7.1.371)	Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array. Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.61 rfadiag

Retarding field analyser Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	rfasetup (7.9.7.1.377)	diagnostic setup information
measure	rfameasure (7.9.7.1.376)	Measured values
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.62 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
crash_trig	integer (7.9.7.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.7.1.393)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.7.1.392)	NO DOCS
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.63 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
centre	scenario_centre (7.9.7.1.394)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.7.1.395)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.7.1.396)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.7.1.397)	characteristic confinement times
currents	scenario_currents (7.9.7.1.398)	data related to current sources and current diffusion
edge	scenario_edge (7.9.7.1.399)	edge value (@ LCMS)
energy	scenario_energy (7.9.7.1.400)	plasma energy content
eqgeometry	eqgeometry (7.9.7.1.211)	Geometry of the plasma boundary
global_param	scenario_global (7.9.7.1.401)	Global scalar values
heat_power	scenario_heat_power (7.9.7.1.402)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.7.1.404)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.7.1.405)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.7.1.406)	line averaged value
neutron	scenario_neutron (7.9.7.1.407)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.7.1.408)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.7.1.409)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.7.1.412)	References
reactor	scenario_reactor (7.9.7.1.410)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.7.1.413)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.7.1.414)	volume averaged value
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.64 solcurdiag

SOL current diagnostic. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
sol_current(:)	solcurdiag_sol_current (7.9.7.1.422)	Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent
clusters(:)	clusters (7.9.7.1.97)	Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.7.1.98)	Code parameters

7.9.7.1.65 temporary

Storage of undeclared data model components; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
non_timed	temporary_nt (7.9.7.1.444)	Time-independent quantities (parameters)
timed	temporary_t (7.9.7.1.460)	Time-dependent quantities
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.66 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.7.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.7.1.4)	Pulse/Entry description
firstputdate	string (7.9.7.1.4)	Date of the original data submission
lastupdate	string (7.9.7.1.4)	Date of the last data addition in the tree
source	string (7.9.7.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.7.1.4)	Any additional comment
dataversion	string (7.9.7.1.4)	Version of the data structure
workflow	string (7.9.7.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.7.1.208)	Definition of this database entry
parent_entry	entry_def (7.9.7.1.208)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.7.1.283)	Information related to machine description for this entry

7.9.7.1.67 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.7.1.475)	Description of the toroidal field coils
nturns	integer (7.9.7.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.7.1.3)	Number of packets of coils
current	exp0D (7.9.7.1.217)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.7.1.217)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.7.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
p_cryo	float (7.9.7.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
wp_nh_max	float (7.9.7.1.2)	Peak nuclear heating in winding pack [W*m^-3]. Time-dependent. Scalar
tfc_nh	float (7.9.7.1.2)	Nuclear heating on the toroidal field coils [W]; Time-dependent. Scalar
neut_flux_inb	float (7.9.7.1.2)	Neutron flux arriving at the inboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
neut_flux_outb	float (7.9.7.1.2)	Neutron flux arriving at the ouboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent. Scalar.

7.9.7.1.68 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
setup	tssetup (7.9.7.1.489)	diagnostic setup information
measure	tsmeasure (7.9.7.1.488)	Measured values
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.69 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
composition	turbcomposition (7.9.7.1.490)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.7.1.491)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.7.1.495)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.7.1.496)	Dependent variable radial profile.

member	type	description
var2d	turbvar2d (7.9.7.1.497)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.7.1.498)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.7.1.499)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.
var5d	turbvar5d (7.9.7.1.500)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.7.1.494)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.7.1.492)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.

7.9.7.1.70 wall

General Wall representation. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
wall0d	wall_wall0d (7.9.7.1.515)	Simple 0D description of plasma-wall interaction
wall2d_mhd	wall2d_mhd (7.9.7.1.503)	Simplified wall that encloses necessary information for RWM codes.
wall2d(:)	wall2d (7.9.7.1.502)	2D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, single contour limiter, disjoint gapped plasma facing components, ...). Time-dependent
wall3d(:)	wall3d (7.9.7.1.504)	3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent
wall_types(:)	wall_types (7.9.7.1.508)	List of reference wall types (e.g. bulk tungsten, tungsten-coated CFC, ...) ; Array of structures (number of reference wall types)
compounds(:)	compound_desc (7.9.7.1.121)	Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)
elements(:)	element_desc (7.9.7.1.207)	Chemical elements present in the wall units, including elements from the plasma (gas + impurities). Use by compounds. Array of structures (number of elements)
compositions	compositions_type (7.9.7.1.120)	NO DOCS
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar.

7.9.7.1.71 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.7.1.100)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.72 Utility Structures

7.9.7.1.73 amns_constituentType

Contains all of the information to characterize an AMNS constituent.

member	type	description
label	string (7.9.7.1.4)	String identifier for reaction constituent (e.g. "D", "C").
zn	integer (7.9.7.1.3)	Number of protons in the nucleus (nuclear charge); 0 if none (e-, gamma)
mn	integer (7.9.7.1.3)	Number of nucleons in the nucleus (nuclear mass); 0 if none (e-, gamma); Not set if not important (e.g. for an atomic process that is not isotope dependent)
multiplicity	float (7.9.7.1.2)	Multiplicity in the compound

Type of: reacprodType:constituents (3912)

7.9.7.1.74 amns_processType

Contains all of the information to characterize an AMNS process; Vector(nprocs).

member	type	description
proc_label	string (7.9.7.1.4)	Label for process (e.g. EI, RC; could also include error estimates)
reactant(:)	reacprodType (7.9.7.1.365)	Array of reactants; Vector(nreac).
product(:)	reacprodType (7.9.7.1.365)	Array of products; Vector(nprod).
sup_string	vecstring_type (7.9.7.1.20)	String array to be used if supplementary information is required.
sup_real	vecflt_type (7.9.7.1.18)	Real array to be used if supplementary information is required.
sup_int	vecint_type (7.9.7.1.19)	Int array to be used if supplementary information is required.
quality	identifier (7.9.7.1.256)	Characterize the data quality
err_proc_label	string (7.9.7.1.4)	"proc_label" of an associated error table of the same type as the primary quantity

Type of: amns:process (3571)

7.9.7.1.75 antenna_ec

Vector of Electron Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.7.1.4)	Antenna name
frequency	float (7.9.7.1.2)	Frequency [Hz]
power	exp0D (7.9.7.1.217)	Power [W]; Time-dependent
mode	integer (7.9.7.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.7.1.385)	Launching position in the global reference system; Time-dependent
launchangles	launchangles (7.9.7.1.266)	Launching angles of the beam
beam	rfbeam (7.9.7.1.378)	Beam characteristics at the launching position
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: antennas:antenna_ec (3572)

7.9.7.1.76 antenna_ic

Vector of Ion Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.7.1.4)	Antenna name; String
frequency	exp0D (7.9.7.1.217)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.7.1.217)	Power [W]; Time-dependent; Exp0d
ntor	vecint_type (7.9.7.1.19)	Toroidal mode numbers [-]; Time-dependent; Vector(n_ntor)
power_ntor	vecflt_type (7.9.7.1.18)	Power coupled in each toroidal mode [W]; Time-dependent; Vector(n_ntor)
setup	antennaic_setup (7.9.7.1.78)	Detailed description of IC antenna hardware and internal settings
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: antennas:antenna_ic (3572)

7.9.7.1.77 antenna_lh

Vector of Lower Hybrid antennas. Time-dependent

member	type	description
name	string (7.9.7.1.4)	Antenna name, String
frequency	float (7.9.7.1.2)	Frequency [Hz]
power	exp0D (7.9.7.1.217)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.7.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.7.1.385)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.7.1.79)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.7.1.353)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.7.1.378)	Beam characteristics
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: antennas:antenna_lh (3572)

7.9.7.1.78 antennaic_setup

Detailed description of an ICRH antenna; hardware and settings

member	type	description
straps(:)	straps (7.9.7.1.437)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)
current	current (7.9.7.1.151)	Description of the IC surface currents on the antenna straps and on passive components.

Type of: antenna_ic:setup (3623)

7.9.7.1.79 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.7.1.296)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (3624)

7.9.7.1.80 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.7.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.7.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: corefast:toroid_field (3576) I coresource:toroid_field (3580) I dist_geometry_0d:toroid_field (3715) I distsource_global_param:toroid_field (3735) I global_param:toroid_field (3796) I mhd:toroid_field (3598) I waves_global_param:to (4066)

7.9.7.1.81 bb

Breeding blanket

member	type	description
nb_bb	float (7.9.7.1.2)	Total (in the reactor) number of breeding blanket module; Scalar
nb_bb_polcut	float (7.9.7.1.2)	Number of bb modules on a poloidal cut; Scalar
teta_bb	float (7.9.7.1.2)	Angle (0 for equatorial outboard, then in anti-clokwise direction) of bb module; [deg]
tbr	float (7.9.7.1.2)	Tritium breeding ratio of the blanket [-]; Scalar
neutro_resul	neutro_resul (7.9.7.1.312)	Neutronic results
inboard	bb_specs (7.9.7.1.84)	Inboard
outboard	bb_specs (7.9.7.1.84)	Outboard

Type of: bb_shield:bb (3573)

7.9.7.1.82 bb_dimension

dimension of the various modules

member	type	description
radial	vecflt_type (7.9.7.1.18)	Radial dimension [m]. Vector(nmodules)
toroidal	vecflt_type (7.9.7.1.18)	Toroidal dimension [m]. Vector(nmodules)
poloidal	vecflt_type (7.9.7.1.18)	Poloidal dimension [m]. Vector(nmodules)

Type of: bb_geometry:bot_cap_dim (3630) I bb_geometry:top_cap_dim (3630) I bb_specs:dimension (3631)

7.9.7.1.83 bb_geometry

Geometrical parameters of "the" reference outboard blanket module

member	type	description
dr_fw	float (7.9.7.1.2)	Radial thickness of the FW [m]; Scalar
dr_bz	float (7.9.7.1.2)	Radial thickness of the BZ (between the FW and the 1st back plate wall) [m]; Scalar
dr_bp	float (7.9.7.1.2)	Radial thickness of the BPs integrated to the module [m]; Scalar
dr_bp_plates	vecflt_type (7.9.7.1.18)	Radial thickness of every BP integrated to the module [m]; Vector(nplates)
dr_bp_he	vecflt_type (7.9.7.1.18)	Radial thickness of Helium layers [m]; Vector(nplates)
dr_man	float (7.9.7.1.2)	Radial thickness of the banana manifold common to all modules [m]; Scalar
dt_sw	float (7.9.7.1.2)	Toroidal thickness of side walls (or covers) [m]; Scalar
dt_bz	float (7.9.7.1.2)	Toroidal dimension of the BZ (between the two side walls [m]; Scalar
dp_bz	float (7.9.7.1.2)	Poloidal dimension of the Breeder zone [m]; Scalar
top_cap_dim	bb_dimension (7.9.7.1.82)	Top cap dimension of bb modules
bot_cap_dim	bb_dimension (7.9.7.1.82)	Bottom cap dimension of bb modules
a_fw_ch	float (7.9.7.1.2)	First wall channel radial dimension [m]; Scalar
b_fw_ch	float (7.9.7.1.2)	First wall channel toroidal dimension [m]; Scalar
td_tc_ch	float (7.9.7.1.2)	Top cap channel toroidal dimension [m]; Scalar
rd_tc_ch	float (7.9.7.1.2)	Top cap channel radial dimension [m]; Scalar
td_bc_ch	float (7.9.7.1.2)	Bottom cap channel toroidal dimension [m]; Scalar
rd_bc_ch	float (7.9.7.1.2)	Bottom cap channel radial dimension [m]; Scalar
n_fw_ch	float (7.9.7.1.2)	Number of first wall channels; Scalar
n_fw_circ	float (7.9.7.1.2)	Number of circulation in channel first wall channels; Scalar
a_sg_ch	float (7.9.7.1.2)	Stiffening grid channel dimension 1 [m]; Scalar
b_sg_ch	float (7.9.7.1.2)	Stiffening grid channel dimension 2 [m]; Scalar
n_sg_ch	float (7.9.7.1.2)	Number of channels per stiffening plate [m]; Scalar
sg_thick	float (7.9.7.1.2)	Stiffening grid thickness [m]; Scalar
sg_weld	float (7.9.7.1.2)	Stiffening grid required dimension for welding [m]; Scalar
sg_in_out	float (7.9.7.1.2)	Stiffening grid input/output geometry length [m]; Scalar
r_sg_cp	float (7.9.7.1.2)	Percentage of the cooling plate length [-]; Scalar
cp_tor_gap	float (7.9.7.1.2)	Gap between cooling plates and toroidal breeder [m]; Scalar
a_cp_ch	float (7.9.7.1.2)	Cooling plates channel dimension 1 [m]; Scalar
b_cp_ch	float (7.9.7.1.2)	Cooling plates channel dimension 2 [m]; Scalar
n_cp_ch	float (7.9.7.1.2)	Number of channels per cooling plates [m]; Scalar
cp_thick	float (7.9.7.1.2)	Cooling plates thickness [m]; Scalar
n_pol_bu	float (7.9.7.1.2)	Number of poloidal breeder units; Scalar
n_tor_bu	float (7.9.7.1.2)	Number of toroidal breeder units; Scalar
n_cp_bu	float (7.9.7.1.2)	Number of cooling plates per breeder unit; Scalar
cp_in_out	float (7.9.7.1.2)	Cooling plate input/output geometry length [m]; Scalar
he_man_tck	float (7.9.7.1.2)	Helium stage manifold thickness [m]; Scalar
man_tck	float (7.9.7.1.2)	Manifold zone thickness [m]; Scalar
pbli_bptb_od	float (7.9.7.1.2)	Output diameter of pbli tube [m]; Scalar
pbli_bptb_id	float (7.9.7.1.2)	Input diameter of pbli tube [m]; Scalar
he_bptb_od	float (7.9.7.1.2)	Output diameter of He inlet tube [m]; Scalar
he_bptb_id	float (7.9.7.1.2)	Input diameter of He inlet tube [m]; Scalar
dr_max_fw	float (7.9.7.1.2)	First wall frontmost thickness [m]; Scalar
dr_fwpl	float (7.9.7.1.2)	Radial thickness of fisrt protective layer [m]; Scalar

Type of: hcllbb_specs:mod_geom (3801)

7.9.7.1.84 bb_specs

Inboard

member	type	description
nbb	float (7.9.7.1.2)	Number of inboard or outboard bb modules (in a poloidal cut), Scalar
r1	float (7.9.7.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
r2	float (7.9.7.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
dimension	bb_dimension (7.9.7.1.82)	dimension of the various modules

Type of: bb:inboard (3628) I bb:outboard (3628)

7.9.7.1.85 beamletgroup

Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamlet-group provides a fair description.

member	type	description
position	rzphi0D (7.9.7.1.385)	Position of centre of injection unit surface (or grounded grid).
tang_rad	float (7.9.7.1.2)	Tangency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.7.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.7.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
width_horiz	float (7.9.7.1.2)	Horizontal width of the beam group at the injection unit surface (or grounded grid) [m]
width_vert	float (7.9.7.1.2)	Vertical width of the beam group at the injection unit surface (or grounded grid) [m]
focussing	focussing (7.9.7.1.229)	Describes how the beam is focussed.
divergence	divergence (7.9.7.1.193)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.7.1.86)	Detailed information on beamlets.

Type of: nbi_unit:beamletgroup (3854)

7.9.7.1.86 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.7.1.386)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.7.1.18)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.7.1.18)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.7.1.18)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: beamletgroup:beamlets (3632)

7.9.7.1.87 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.7.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.7.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.7.1.18)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.7.1.18)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent
position	waves_rtposition (7.9.7.1.524)	Ray/beam position
wavevector	waves_rtwavevector (7.9.7.1.525)	Ray/beam wave vector.
polarization	polarization (7.9.7.1.356)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.7.1.359)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (3647)

7.9.7.1.88 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.7.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.7.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.7.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.7.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: psi:boundary (3909)

7.9.7.1.89 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array1D(3)
type	integer (7.9.7.1.3)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Int
rho_tor	float (7.9.7.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Float.

Type of: corefieldneutral:boundary (3677) I corefieldneutrale:boundary (3678) I corefieldneutralv:boundary (3679)

7.9.7.1.90 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.7.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.7.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.7.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (3675)

7.9.7.1.91 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	matflt_type (7.9.7.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 2D (3,nzimp)
source	string (7.9.7.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	vecint_type (7.9.7.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nzimp)

member	type	description
rho	vecflt_type (7.9.7.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nzimp)
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: impurity_type:boundary (3806)

7.9.7.1.92 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.7.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.7.1.20)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)
type	vecint_type (7.9.7.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.7.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (3676)

7.9.7.1.93 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.7.1.415)	diagnostic setup information
measure	exp1D (7.9.7.1.218)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (3597)

7.9.7.1.94 calorimetry_heat_source

Generic complex type for heat source or sink

member	type	description
name	string (7.9.7.1.4)	Name of the source. String
temp_in	float (7.9.7.1.2)	Temperature of the input flow [K]; Scalar
temp_out	float (7.9.7.1.2)	Temperature of the output flow [K]; Scalar
press_in	float (7.9.7.1.2)	Imput Pressure [Pa];Scalar
press_out	float (7.9.7.1.2)	Output Pressure [Pa];Scalar
flow	float (7.9.7.1.2)	Flow of the source [kg/s]; Scalar
power	float (7.9.7.1.2)	Power of the source [W];Scalar

Type of: heat_sources:sinks (3591) I heat_sources:sources (3591)

7.9.7.1.95 circuits

Description of the circuit of the power conversion system. Array of structure. (ncircuits).

member	type	description
component(:)	power_conv_component (7.9.7.1.357)	Description of the components of the power conversion system. Array of structure (ncomp).
power_net	float (7.9.7.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.7.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar

member	type	description
efficiency	float (7.9.7.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)

Type of: power_conv:circuits (3607)

7.9.7.1.96 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.7.1.379)	Circular coil centre
hlength	float (7.9.7.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.7.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (4022)

7.9.7.1.97 clusters

Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).

member	type	description
name	string (7.9.7.1.4)	Name of the toroidally distributed tile set. String.
start	integer (7.9.7.1.3)	ID of the tile set as a scalar where this superset starts. Integer.
finish	integer (7.9.7.1.3)	ID of the tile set as a scalar where this superset finishes. Integer.

Type of: solcurdiag:clusters (3612)

7.9.7.1.98 codeparam

Code parameters

member	type	description
codename	string (7.9.7.1.4)	Name of the code
codeversion	string (7.9.7.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.7.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.7.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.7.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: amns:codeparam (3571) I antenna_ec:codeparam (3622) I antenna_ic:codeparam (3623) I antenna_lh:codeparam (3624) I antennas:codeparam (3572) I bb_shield:codeparam (3573) I boundary:codeparam (3635) I boundaryimp:codeparam (3638) I coherentwave:codeparam (3647) I compositionc:codeparam (3574) I coredelta:codeparam (3575) I coredelta_values:codeparam (3672) I corefast:codeparam (3576) I corefast_values:codeparam (3674) I corefield:codeparam (3675) I corefieldion:codeparam (3676) I coreimpur:codeparam (3577) I coreneutrals:codeparam (3578) I coreprof:codeparam (3579) I coresource:codeparam (3580) I coresource_values:codeparam (3693) I coretransp:codeparam (3581) I coretransp_values:codeparam (3697) I cxdiag:codeparam (3582) I distri_vec:codeparam (3734) I distribution:codeparam (3583) I distsource:codeparam (3584) I distsource_source:codeparam (3739) I ecediag:codeparam (3585) I edge:codeparam (3586) I efcc:codeparam (3587) I equilibrium:codeparam (3588) I flush:codeparam (3771) I fusiondiag:codeparam (3589) I fusiondiag_fus_product:codeparam (3790) I halphadiag:codeparam (3590) I heat_sources:codeparam (3591) I ironmodel:codeparam (3593) I langmuirdiag:codeparam (3594) I launchs:codeparam (3595) I lineintegraldiag:codeparam (3822) I lithiumdiag:codeparam (3596) I magdiag:codeparam (3597) I mhd:codeparam (3598) I msediag:codeparam (3599) I nbi:codeparam (3600) I nbi_unit:codeparam (3854) I neoclassic:codeparam (3601) I ntm:codeparam (3602) I orbit:codeparam (3603) I pellets:codeparam (3604) I pfsystems:codeparam (3605) I power_conv:codeparam (3607) I psi:codeparam (3909) I reflectomet:codeparam (3608) I rfadiag:codeparam (3609) I sawteeth:codeparam (3610) I scenario:codeparam (3611) I solcurdiag:codeparam (3612) I spectral:codeparam (3980) I temporary:codeparam (3613) I toroidfield:codeparam (3615) I tsdiag:codeparam (3616) I turbulence:codeparam (3617) I wall:codeparam (3618) I waves:codeparam (3619)

7.9.7.1.99 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The particular causing ion or impurity charge state is determined by the path.

member	type	description
recycling	recycling_neutrals (7.9.7.1.368)	Recycling coefficients. Time-dependent
sputtering	sputtering_neutrals (7.9.7.1.436)	Sputtering coefficients. Time-dependent

Type of: coreneutrals:ioncoeff (3578) I impcoeff:chargestate (3804)

7.9.7.1.100 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
wave_id	enum_instance (7.9.7.1.209)	List of identifiers for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC (see waves_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.
composition	composition (7.9.7.1.116)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.7.1.120)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
global_param	waves_global_param (7.9.7.1.519)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.7.1.520)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.7.1.521)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.7.1.522)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.7.1.523)	2D profiles in poloidal cross-section
beamtracing(:)	beamtracing (7.9.7.1.87)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.7.1.230)	Solution by full wave code
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: waves:coherentwave (3619)

7.9.7.1.101 coil

Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.

member	type	description
desc_coils	desc_coils (7.9.7.1.156)	Description of the coils
coilcurrent	exp1D (7.9.7.1.218)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the geometry description [A]; Time-dependent
coilvoltage	exp1D (7.9.7.1.218)	Voltage on the full coil [V]; Time-dependent

Type of: efcc:coil (3587)

7.9.7.1.102 com

COM (Constants Of Motion) parameters identifying an orbit

member	type	description
amn	float (7.9.7.1.2)	Atomic mass of the particle; Scalar
zion	float (7.9.7.1.2)	Atomic charge of the particle; Scalar
energy	vecflt_type (7.9.7.1.18)	Energy of the particle [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.7.1.18)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).
p_phi	vecflt_type (7.9.7.1.18)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.7.1.19)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:com (3603)

7.9.7.1.103 complexgrid

Generic definition of a complex grid

member	type	description
uid	integer (7.9.7.1.3)	Unique index of this grid. Used for handling multiple grids
id	string (7.9.7.1.4)	Name / identifier string for this grid
spaces(:)	complexgrid_space (7.9.7.1.112)	Definitions of grid spaces. Array of structures (number of spaces)
subgrids(:)	complexgrid_subgrid (7.9.7.1.113)	Definitions of subgrids. Array of structures (number of subgrids)
metric	complexgrid_metric (7.9.7.1.106)	Metric coefficients
geo(:)	complexgrid_geo_global (7.9.7.1.104)	Geometry data for implicit objects
bases(:)	complexgrid_vector (7.9.7.1.114)	Vector bases. Used for aligned vector representation. Time-dependent (added systematically for the COMP child inheritance of that property). Array of structures (number of bases)

Type of: edge:grid (3586) I f_expansion:grid (3767) I fullwave:grid (3777) I source_rate:grid (3973) I wall3d:grid (4051)

7.9.7.1.104 complexgrid_geo_global

Geometry information for implicitly defined grid objects (which cannot be stored in the space definitions); Array of structures (number of alternate geometries).

member	type	description
geotype	integer (7.9.7.1.3)	Type of geometry (id flag). A flag defining how the geometry data associated with grid objects is to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.7.1.4)	Type of geometry (id string).
coordtype	vecint_type (7.9.7.1.19)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
geo_matrix(:)	complexgrid_scalar (7.9.7.1.108)	Geometry data matrix associated with implicit objects. Array of structures (number of subgrids this information is stored on); The exact definition of the stored values depends on the geometry type of the geometry complexgrid_geo_global.geotype;
measure(:)	complexgrid_scalar (7.9.7.1.108)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects) in this geometry. [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:geo (3650)

7.9.7.1.105 complexgrid_indexlist

An index list describing a list of indices or a range of indices.; If the explicit index list ind is defined and has nonzero size, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.7.1.19)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). If additionally a third value range(3) is given, it is used as a stride. If it is omitted, a stride of 1 is assumed. Vector(3)
ind	vecint_type (7.9.7.1.19)	An explicit list of indices. If this member is defined and has nonzero size, the list is assumed to be explicit. Vector(length of explicit index list)

Type of: complexgrid_objectlist:indset (3654)

7.9.7.1.106 complexgrid_metric

Metric information for grid objects

member	type	description
measure(:)	complexgrid_scalar (7.9.7.1.108)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)
g11(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g11. Array of structures (number of subgrids this information is stored on)
g12(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g12. Array of structures (number of subgrids this information is stored on)
g13(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g13. Array of structures (number of subgrids this information is stored on)
g22(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g22. Array of structures (number of subgrids this information is stored on)
g23(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g23. Array of structures (number of subgrids this information is stored on)
g33(:)	complexgrid_scalar (7.9.7.1.108)	Metric coefficients g33. Array of structures (number of subgrids this information is stored on)
jacobian(:)	complexgrid_scalar (7.9.7.1.108)	Jacobian. Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:metric (3650)

7.9.7.1.107 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list is explicit if the matrix ind is given and has nonzero size. In this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are defined by a list of index lists stored in indset.

member	type	description
cls	vecint_type (7.9.7.1.19)	Class tuple of the grid objects in this object list. Vector (number of grid spaces)
indset(:)	complexgrid_indexlist (7.9.7.1.105)	Implicit list of the object indices.; Array of structures (number of grid spaces = length of index tuple). Every index of the index tuple is described by an index set, which defines either a list of index values or a range of index values.
ind	matint_type (7.9.7.1.16)	Explicit list of index tuples. Matrix (number of objects, number of spaces in grid).; First dimension: object index, second dimension: index tuple/space index.; If this field is defined and has nonzero size, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (3660)

7.9.7.1.108 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.7.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.7.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.7.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.7.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_geo_global:geo_matrix (3651) I complexgrid_geo_global:measure (3651) I complexgrid_metric:g11 (3653) I complexgrid_metric:g12 (3653) I complexgrid_metric:g13 (3653) I complexgrid_metric:g22 (3653) I complexgrid_metric:g23 (3653) I complexgrid_metric:g33 (3653) I complexgrid_metric:jacobian (3653) I complexgrid_metric:measure (3653) I complexgrid_vector:comp (3661) I complexgrid_vector_simplestruct:comp (3662) I edge_fluid_scalar:bndvalue (3745) I edge_fluid_scalar:source (3745) I edge_fluid_scalar:value (3745) I edge_fluid_scalar_simple (3746) I edge_fluid_scalar_simplestruct:source (3746) I edge_fluid_scalar_simplestruct:value (3746) I edge_kinetic_distribution (3751) I edge_kinetic_distribution:source (3751) I edge_kinetic_distribution:value (3751) I f_expansion:values (3767) I source_rate:value (3973) I wall_unitsComplexType:eta (4057) I wall_unitsComplexType:permeability (4057)

7.9.7.1.109 complexgrid_scalar_cplx

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.7.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	veccplx_type (7.9.7.1.17)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Complex Vector(nobjects_subgrid). First dimension: object index.
vector	matcplx_type (7.9.7.1.14)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Complex matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dcplx_type (7.9.7.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d complex array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: e_components:b_binorm (3741) I e_components:b_norm (3741) I e_components:b_para (3741) I e_components:e_binorm (3741) I e_components:e_minus (3741) I e_components:e_norm (3741) I e_components:e_para (3741) I e_components:e_plus (3741) I e_components:k_perp (3741)

7.9.7.1.110 complexgrid_scalar_int

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.7.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecint_type (7.9.7.1.19)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matint_type (7.9.7.1.16)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dint_type (7.9.7.1.8)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.7.1.111 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.7.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.7.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.7.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.7.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.7.1.112 complexgrid_space

Description of a grid space

member	type	description
geotype	vecint_type (7.9.7.1.19)	Type of space geometry (id flags). Flags defining how the geometry (objects.geo) fields associated with; space objects are to be interpreted. Array (number of geometries defined for this space),; first dimension: geometry index. A flag value of GRID_UNDEFINED=0 indicates the standard interpretation for; the given coordinates.
geotypeid	vecstring_type (7.9.7.1.20)	Type of space geometries (id string). See geotype.
coordtype	matint_type (7.9.7.1.16)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
objects(:)	objects (7.9.7.1.321)	Definition of the space objects.; Array of structures (dimension of highest-dimensional objects).; First dimension: dimension of the objects (1=nodes, 2=edges, 3=faces, 4=cells/volumes, ...)
xpoints	vecint_type (7.9.7.1.19)	List of indices of all nodes which are x-points. Vector (number of x-points)

Type of: complexgrid:spaces (3650)

7.9.7.1.113 complexgrid_subgrid

Subgrid definition. A subgrid is a list of grid objects, given as a list of explict or implicit object lists.

member	type	description
id	string (7.9.7.1.4)	ID string (name) of the subgrid.
list(:)	complexgrid_objectlist (7.9.7.1.107)	List of object lists. Array of structures (number of object lists).

Type of: complexgrid:subgrids (3650)

7.9.7.1.114 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this vector quantity is associated with.
label	string (7.9.7.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.7.1.108)	Components of the vector. Array of structures (number of vector components). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.7.1.19)	Alignment flag for vector components. Integer vector (number of vector components).
alignid	vecstring_type (7.9.7.1.20)	Alignment id for vector components. String vector (number of vector components).
basis	integer (7.9.7.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.

Type of: complexgrid:bases (3650) I edge_fluid:b (3744) I edge_fluid_scalar:bndflux (3745) I edge_fluid_scalar:flux (3745) I edge_fluid_scalar_simplestruct:bndflux (3746) I edge_fluid_scalar_simplestruct:flux (3746) I edge_kinetic_distribution (3751) I wall_unitsComplexType:j (4057)

7.9.7.1.115 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.7.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.7.1.108)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.7.1.19)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.7.1.20)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (3747) I edge_fluid_scalar_transpcoeff:v (3747)

7.9.7.1.116 composition

Plasma composition (description of ion species). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.7.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.7.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.7.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.7.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	vecstring_type (7.9.7.1.20)	Label for the ions - note the charge state is not included; String Vector (nion)

Type of: coherentwave:composition (3647) I coredelta:composition (3575) I corefast:composition (3576) I coreneutrals:composition (3578) I coreprof:composition (3579) I coresource:composition (3580) I coretransp:composition (3581) I distribution:composition (3583) I distsource:composition (3584) I neoclassic:composition (3601) I sawteeth:composition (3610)

7.9.7.1.117 composition_neutrals

Description of neutrals species

member	type	description
atomlist(:)	coreneutrals_atomlist (7.9.7.1.142)	List of the atoms that enter the composition of the neutral species. Vector(natm)
neutral(:)	composition_neutralscomp (7.9.7.1.119)	List of neutrals. Vector(nneut)

Type of: coreneutrals:neutcompo (3578)

7.9.7.1.118 composition_neutrals_neutcomp

Array of components to the atom or molecule. Vector (ncomp)

member	type	description
nucindex	integer (7.9.7.1.3)	Index into list of nuclei; int
multiplicity	integer (7.9.7.1.3)	Multiplicity of the atom; int

Type of: composition_neutralscomp:neutcomp (3666)

7.9.7.1.119 composition_neutralscomp

Array of neutrals.

member	type	description
neutcomp(:)	composition_neutrals_neutcomp (7.9.7.1.118)	Array of components to the atom or molecule. Vector (ncomp)
type(:)	identifier (7.9.7.1.256)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Vector (ntype) of identifiers
label	string (7.9.7.1.4)	String identifying the atom or molecule (e.g. D2, DT, CD4, ...)

Type of: composition_neutrals:neutral (3664) I compositions_type:neutralscomp (3667)

7.9.7.1.120 compositions_type

Generic declaration of Plasma composition for a simulation

member	type	description
nuclei(:)	nuclei (7.9.7.1.320)	Array of nuclei considered.
ions(:)	ions (7.9.7.1.261)	Array of main plasma ions.
impurities(:)	impurities (7.9.7.1.258)	Array of impurities.
neutralscomp(:)	composition_neutralscomp (7.9.7.1.119)	Array of neutrals.
edgespecies(:)	edgespecies (7.9.7.1.206)	Array of edge species.
signature	identifier (7.9.7.1.256)	Identifier for species choices. The goal of this is to uniquely capture the species blocks so that if the signatures are the same then the species blocks will also be the same.

Type of: coherentwave:compositions (3647) I compositionc:compositions (3574) I coredelta:compositions (3575) I corefast:compositions (3576) I coreimpur:compositions (3577) I coreneutrals:compositions (3578) I coreprof:compositions (3579) I coresource:compositions (3580) I coretransp:compositions (3581) I distribution:compositions (3583) I distsource:compositions (3584) I edge:compositions (3586) I neoclassic:compositions (3601) I pellets:compositions (3604) I wall:compositions (3618)

7.9.7.1.121 compound_desc

Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)

member	type	description
label	string (7.9.7.1.4)	Compound name/label
stochiometry	vecflt_type (7.9.7.1.18)	Fractional composition of the compound. Float vector, dimensions: 1. element number (numbering as in wall/elements array)
density	float (7.9.7.1.2)	Compound density (molecules/m^3)
heat_cap	float (7.9.7.1.2)	Specific heat capacity [J/(eV kg)]
heat_cond	vecflt_type (7.9.7.1.18)	Thermal conductivity [W/(m eV)]
surf_recrate	matflt_type (7.9.7.1.15)	Recombination rate on surface (only for pure elements, not compounds) [molecules*m^2/s]; Dimensions: index 1: first recombining element, index 2: second recombining element (numbering as in wall/elements array)

Type of: wall:compounds (3618)

7.9.7.1.122 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.7.1.4)	Type of coordinate system
grid	reggrid (7.9.7.1.375)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.7.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.7.1.15)	metric coefficients g_11; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.7.1.15)	metric coefficients g_12; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.7.1.15)	metric coefficients g_13; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.7.1.15)	metric coefficients g_22; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.7.1.15)	metric coefficients g_23; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.7.1.15)	metric coefficients g_33; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.7.1.383)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (3588) I mhd_plasma:coord_sys (3833) I mhd_vacuum:coord_sys (3835)

7.9.7.1.123 coordinates

Poloidal and Toroidal coordinates of the center of each hole;

member	type	description
theta	vecflt_type (7.9.7.1.18)	Theta coordinate of holes center; Vector (n_holes)
phi	vecflt_type (7.9.7.1.18)	Toroidal coordinate of holes center; Vector (n_holes)

Type of: holes:coordinates (3802)

7.9.7.1.124 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description

member	type	description
coord	vecflt_type (7.9.7.1.18)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.7.1.20)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.7.1.19)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.7.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.7.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.7.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.7.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.7.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (3990)

7.9.7.1.125 coredelta_values

Description of the delta term for a given origin

member	type	description
deltaid	identifier (7.9.7.1.256)	Identifier for the origin of the delta terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
delta_psi	vecflt_type (7.9.7.1.18)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.7.1.18)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.7.1.15)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_ne	vecflt_type (7.9.7.1.18)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.7.1.15)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
impurity(:)	coredelta_values_impurity (7.9.7.1.126)	Array(nimp). Time-dependent
delta_vtor	matflt_type (7.9.7.1.15)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coredelta:values (3575)

7.9.7.1.126 coredelta_values_impurity

Description of the delta term for an impurity

member	type	description
delta_tz	matflt_type (7.9.7.1.15)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Matrix (nrho,nzimp).
delta_nz	matflt_type (7.9.7.1.15)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Matrix (nrho,nzimp).

Type of: coredelta_values:impurity (3672)

7.9.7.1.127 corefast_values

Description of the source terms for a given origin

member	type	description
fastid	identifier (7.9.7.1.256)	Identifier for the origin of the non-thermal contributions (see fast_particle_origin_identifier in the Documentation website under Conventions/Enumerated_datatypes). Time-dependent.

member	type	description
filter	fast_thermal_separation_filter (7.9.7.1.221)	Description of how the fast and the thermal particle populations were separated. Time-dependent.
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point). Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.7.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Vector (nrho). Time-dependent.
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]. Vector (nrho). Time-dependent.
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]. Vector (nrho). Time-dependent.
j	vecflt_type (7.9.7.1.18)	Non thermal current, = average(j.B) / B0, where B0 = corefast/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.7.1.18)	Non-thermal induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
ni	matflt_type (7.9.7.1.15)	Non-thermal ion density [m^-3]. Matrix(nrho,nions). Time-dependent.
ne	vecflt_type (7.9.7.1.18)	Non-thermal electron density [m^-3]. Vector(nrho). Time-dependent.
nz	matflt_type (7.9.7.1.15)	Non-thermal impurity density [m^-3]. Matrix(nrho,nimpur). Time-dependent.
pi	matflt_type (7.9.7.1.15)	Non-thermal ion pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe	vecflt_type (7.9.7.1.18)	Non-thermal electron pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz	matflt_type (7.9.7.1.15)	Non-thermal impurity total pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
pi_para	matflt_type (7.9.7.1.15)	Non-thermal ion parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe_para	vecflt_type (7.9.7.1.18)	Non-thermal electron parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz_para	matflt_type (7.9.7.1.15)	Non-thermal impurity parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
ui	matflt_type (7.9.7.1.15)	Non-thermal ion toroidal velocity [m.s^-1]. Matrix(nrho,nions). Time-dependent.
uz	matflt_type (7.9.7.1.15)	Non-thermal impurity toroidal velocity [m.s^-1]. Matrix(nrho,nimpur). Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: corefast:values (3576)

7.9.7.1.128 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.7.1.18)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.7.1.18)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Vector (nrho)
ddt	vecflt_type (7.9.7.1.18)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Vector (nrho)
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.7.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.7.1.90)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.7.1.428)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.7.1.147)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.7.1.226)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	vecflt_type (7.9.7.1.18)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Vector (nrho)
time_deriv	vecflt_type (7.9.7.1.18)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coreprof:ne (3579) I coreprof:te (3579)

7.9.7.1.129 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.7.1.15)	Signal value; Time-dependent; Matrix (nrho,nion)
ddrho	matflt_type (7.9.7.1.15)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
d2drho2	matflt_type (7.9.7.1.15)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Matrix (nrho,nion)
ddt	matflt_type (7.9.7.1.15)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.7.1.19)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.7.1.92)	Boundary condition for the transport equation
source_term	sourceion (7.9.7.1.430)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.7.1.149)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.7.1.228)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	matflt_type (7.9.7.1.15)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Matrix(nrho,nion)
time_deriv	matflt_type (7.9.7.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coreprof:ni (3579) I coreprof:ti (3579) I coreprof:vtor (3579)

7.9.7.1.130 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.7.1.18)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.7.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:n0 (3690)

7.9.7.1.131 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.7.1.18)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.7.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:t0 (3690)

7.9.7.1.132 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Vector(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.7.1.89)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (3680) I corefieldneutralv0:radial (3680) I corefieldneutralv0:toroidal (3680)

7.9.7.1.133 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.7.1.132)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.7.1.132)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.7.1.132)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: coreneutrals_neutraltype:v0 (3690)

7.9.7.1.134 coreimpurdiag_sum_radiation

member	type	description
line_rad	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS
brem_radrec	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS
sum	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS

Type of: coreimpurediag_sum:radiation (3684)

7.9.7.1.135 coreimpurediag_energy

member	type	description
ionization	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS
recombin	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS
sum	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS

Type of: coreimpurediag_type:energy (3686)

7.9.7.1.136 coreimpurediag_radiation

member	type	description
line_rad	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS
brem_radrec	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS
sum	coreimpurediagprof_type (7.9.7.1.140)	NO DOCS

Type of: coreimpurediag_type:radiation (3686)

7.9.7.1.137 coreimpurediag_sum

member	type	description
radiation	coreimpurdiag_sum_radiation (7.9.7.1.134)	NO DOCS
energy	coreimpurediag_sum_energy (7.9.7.1.138)	NO DOCS

Type of: coreimpur:diagnosticsum (3577)

7.9.7.1.138 coreimpurediag_sum_energy

member	type	description
ionization	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS
recombin	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS
sum	coreimpurediagsum_type (7.9.7.1.141)	NO DOCS

Type of: coreimpurediag_sum:energy (3684)

7.9.7.1.139 coreimpurediag_type

member	type	description
radiation	coreimpurediag_radiation (7.9.7.1.136)	NO DOCS
energy	coreimpurediag_energy (7.9.7.1.135)	NO DOCS

Type of: coreimpur:diagnostic (3577) I impurity_type:diagnostic (3806)

7.9.7.1.140 coreimpurediagprof_type

member	type	description
profile	matflt_type (7.9.7.1.15)	Profile of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)
integral	matflt_type (7.9.7.1.15)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)

Type of: coreimpurediag_energy:ionization (3682) I coreimpurediag_energy:recombin (3682) I coreimpurediag_energy:sum (3682) I coreimpurediag_radiation:brem_radrec (3683) I coreimpurediag_radiation:line_rad (3683) I coreimpurediag_radiation:sum (3683)

7.9.7.1.141 coreimpurediagsum_type

member	type	description
profile	vecflt_type (7.9.7.1.18)	Profile of the radiation or energy sources. Time-dependent. Array1D (nrho)
integral	vecflt_type (7.9.7.1.18)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array1D (nrho)

Type of: coreimpurdiag_sum_radiation:brem_radrec (3681) I coreimpurdiag_sum_radiation:line_rad (3681) I coreimpurdiag_sum_radiation:sum (3681) I coreimpurediag_sum_energy:ionization (3685) I coreimpurediag_sum_energy:recom (3685) I coreimpurediag_sum_energy:sum (3685)

7.9.7.1.142 coreneutrals_atomlist

List of the atoms that enter the composition of the neutral species. Vector(natm)

member	type	description
amn	float (7.9.7.1.2)	Atomic mass number; Float
zn	float (7.9.7.1.2)	Nuclear charge; Float
ionimptype	identifier (7.9.7.1.256)	Identifier whether ion in coreprof or impurity in coreimpur.
ionimpindex	integer (7.9.7.1.3)	Index in composition or desc_impur of the corresponding ion or impurity.

Type of: composition_neutrals:atomlist (3664)

7.9.7.1.143 coreneutrals_neutraltype

Array (ntype) over neutral types.

member	type	description
n0	corefieldneutral (7.9.7.1.130)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.7.1.131)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.7.1.133)	Neutral velocity [m.s^-1]. Time-dependent;

Type of: neutral_complex_type:neutraltype (3858)

7.9.7.1.144 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (3907) I profiles1d:dpedt (3907) I profiles1d:dpi_totdt (3907) I profiles1d:dvprimedt (3907) I profiles1d:e_b (3907) I profiles1d:eparallel (3907) I profiles1d:jni (3907) I profiles1d:joh (3907) I profiles1d:jphi (3907) I profiles1d:jtot (3907) I profiles1d:pe (3907) I profiles1d:pi_tot (3907) I profiles1d:pr_parallel (3907) I profiles1d:pr_perp (3907) I profiles1d:pr_th (3907) I profiles1d:q (3907) I profiles1d:qei (3907) I profiles1d:shear (3907) I profiles1d:sigmapar (3907) I profiles1d:vloop (3907) I profiles1d:zeff (3907) I psi:sigma_par (3909)

7.9.7.1.145 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.7.1.15)	Signal value; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (3907) I profiles1d:ns (3907) I profiles1d:pi (3907) I profiles1d:vpol (3907) I profiles1d:wtor (3907)

7.9.7.1.146 coresource_values

Description of the source terms for a given origin

member	type	description
sourceid	identifier (7.9.7.1.256)	Identifier for the origin of the source terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
j	vecflt_type (7.9.7.1.18)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.7.1.18)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.7.1.425)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_vec (7.9.7.1.427)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz(:)	source_imp (7.9.7.1.424)	Particle source for impurity density transport equation [m^-3.s^-1]. Vector(nimpur). Time-dependent.
qi	source_ion (7.9.7.1.425)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_vec (7.9.7.1.427)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz(:)	source_imp (7.9.7.1.424)	Heat source for impurity heat transport equations [W.m^-3]. Vector(nimpur). Time-dependent.
ui	source_ion (7.9.7.1.425)	Toroidal torque on individual ion species; for toroidal momentum transport equation [kg.m^-1.s^-2]. Time-dependent.

member	type	description
ujxb	source_vec (7.9.7.1.427)	Toroidal JxB torque on bulk plasma; for toroidal momentum transport equation [kg.m^-1.s^-2]. Here J is the return current from fast ion radial currents Jfast=-J. Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coresource:values (3580)

7.9.7.1.147 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.7.1.18)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.7.1.18)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (3675)

7.9.7.1.148 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	matflt_type (7.9.7.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array2D(nrho,nzimp)
vconv	matflt_type (7.9.7.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Array2D (nrho,nzimp)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:transp_coef (3806)

7.9.7.1.149 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.7.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.7.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (3676)

7.9.7.1.150 coretransp_values

Description of transport term coming from various origins. Array of structure (ntransp)

member	type	description
transportid	identifier (7.9.7.1.256)	Identifier for the origin of the transport terms (see conventions in the ITM website)
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
sigma	vecflt_type (7.9.7.1.18)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.7.1.313)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.7.1.308)	Transport coefficients for electron density equation. Time-dependent.
nz_transp(:)	transcoefimp (7.9.7.1.483)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.7.1.484)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.7.1.482)	Transport coefficients for electron temperature equation. Time-dependent.

member	type	description
tz_transp(:)	transcoefimp (7.9.7.1.483)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.7.1.485)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coretransp:values (3581)

7.9.7.1.151 current

Description of the IC surface currents on the antenna straps and on passive components.

member	type	description
mpol	vecint_type (7.9.7.1.19)	Poloidal modes, used to describe the spectrum of the antenna current. The poloidal angle is defined from the reference point rz_reference; the angle at a point (R,Z) is given by atan((Z-Zref)/(R-Rref)), where Rref=rz_reference/r and Zref=rz_reference/z. Time-Dependent; Integer(n_poloidal_modes)
ntor	vecint_type (7.9.7.1.19)	Toroidal modes, used to describe the spectrum of the antenna current. Time-Dependent; Integer(n_toroidal_modes)
spectrum	exp1D (7.9.7.1.218)	Spectrum of the total surface current on the antenna strap and passive components expressed in poloidal and toroidal mode [A]. Calculated using a geometrical poloidal angle around the point rz_reference. Time-dependent; exp1D(n_poloidal_modes , n_toroidal_modes)
rz_reference	rz0D (7.9.7.1.379)	Reference point used to define the poloidal angle, e.g. the geometrical centre of the vacuum vessel. Time-dependent; rz0d

Type of: antennaic_setup:current (3625)

7.9.7.1.152 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.7.1.218)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.7.1.218)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.7.1.218)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (3582)

7.9.7.1.153 cxsetup

diagnostic setup information

member	type	description
amn	vecflt_type (7.9.7.1.18)	Mass of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
zn	vecflt_type (7.9.7.1.18)	Nuclear charge of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
position	rzphi1Dexp (7.9.7.1.387)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (3582)

7.9.7.1.154 data_release

Stores information about each entry available at this version.

member	type	description
shot	integer (7.9.7.1.3)	Shot number = Mass*100+Nuclear_charge.
run	integer (7.9.7.1.3)	Which run number is the active run number for this version.
description	vecstring_type (7.9.7.1.20)	Possible description of why this version of the data is the current version.

Type of: version_ind:data_release (4048)

7.9.7.1.155 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.7.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.7.1.4)	Date at which the data has been put in the DB
source	string (7.9.7.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.7.1.4)	Any additional comment
cocos	integer (7.9.7.1.3)	COordinates COnventionS followed by this CPO
id	integer (7.9.7.1.3)	CPO id for checking its provenance in the workflow
isref	integer (7.9.7.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.7.1.527)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.7.1.363)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (3571) I antennas:datainfo (3572) I bb_shield:datainfo (3573) I compositionc:datainfo (3574) I coredelta:datainfo (3575) I corefast:datainfo (3576) I coreimpur:datainfo (3577) I coreneutrals:datainfo (3578) I coreprof:datainfo (3579) I coresource:datainfo (3580) I coretransp:datainfo (3581) I cxdiag:datainfo (3582) I distribution:datainfo (3583) I distsource:datainfo (3584) I ecediag:datainfo (3585) I edge:datainfo (3586) I efcc:datainfo (3587) I equilibrium:datainfo (3588) I flush:datainfo (3771) I fusiondiag:datainfo (3589) I halphadiag:datainfo (3590) I heat_sources:datainfo (3591) I ironmodel:datainfo (3593) I langmuirdiag:datainfo (3594) I launchs:datainfo (3595) I lineintegraldiag:datainfo (3822) I lithiumdiag:datainfo (3596) I magdiag:datainfo (3597) I mhd:datainfo (3598) I msediag:datainfo (3599) I nbi:datainfo (3600) I neoclassic:datainfo (3601) I ntm:datainfo (3602) I orbit:datainfo (3603) I pellets:datainfo (3604) I pfsystems:datainfo (3605) I power_conv:datainfo (3607) I reflectomet:datainfo (3608) I rfadiag:datainfo (3609) I sawteeth:datainfo (3610) I scenario:datainfo (3611) I solcurdiag:datainfo (3612) I temporary:datainfo (3613) I toroidfield:datainfo (3615) I tsdiag:datainfo (3616) I turbulence:datainfo (3617) I wall:datainfo (3618) I waves:datainfo (3619)

7.9.7.1.156 desc_coils

Description of the coils

member	type	description
name	string (7.9.7.1.4)	Name of coil.
res	float (7.9.7.1.2)	Coil resistance [Ohm]
nturns	integer (7.9.7.1.3)	number of turns inside the coil
closed	string (7.9.7.1.4)	Identify whether the coil is closed (y) or open (n). For closed coils there is no need to replicate the first r,z,phi point as last point
edges(:)	edges (7.9.7.1.205)	Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

Type of: coil:desc_coils (3648)

7.9.7.1.157 desc_impur

Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.7.1.18)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.7.1.19)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.7.1.19)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.7.1.19)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.7.1.16)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.7.1.16)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)
label	vecstring_type (7.9.7.1.20)	Label for the impurities - note that the charge state is not included; String Vector (nimp)

Type of: coredelta:desc_impur (3575) I corefast:desc_impur (3576) I coreimpur:desc_impur (3577) I coreneutrals:desc_impur (3578) I coreprof:desc_impur (3579) I coresource:desc_impur (3580) I coretransp:desc_impur (3581) I neoclassic:desc_impur (3601)

7.9.7.1.158 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.7.1.20)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.7.1.341)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.7.1.248)	Geometry of the iron segments

Type of: ironmodel:desc_iron (3593)

7.9.7.1.159 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.7.1.20)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.7.1.18)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.7.1.18)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
structure_cs	structure_cs (7.9.7.1.438)	Detailed description of the coil structure, for coils that are part of the central solenoid.
pol_flux_cs	float (7.9.7.1.2)	Maximum poloidal flux available in the Central Solenoid for a plasma pulse [Wb].
nelement	vecint_type (7.9.7.1.19)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.7.1.344)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (3890)

7.9.7.1.160 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.7.1.20)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.7.1.20)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.7.1.18)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.7.1.222)	Laplace proper filter
imin	vecflt_type (7.9.7.1.18)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.7.1.18)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.7.1.18)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.7.1.18)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.7.1.18)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.7.1.18)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (3896)

7.9.7.1.161 diag_func

Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

member	type	description
description	string (7.9.7.1.4)	Short description of the detector with reference to the number of cells (ncells).
transf_mat	matflt_type (7.9.7.1.15)	Transfer matrix of the detector. Each l.o.s. might have a dedicated detector response function and energy resolution (and number of cells). Time-independent. Matrix (ncells,nenergy)

Type of: fusiondiag_detect_ct_energy:diag_func (3787)

7.9.7.1.162 dist_collisional_transfer_0d

Collisional exchange with the electrons. Time-dependent

member	type	description
power_th	float (7.9.7.1.2)	Collisional power to the thermal particle population [W]; Time-dependent; Scalar
power_fast	float (7.9.7.1.2)	Collisional power to the fast particle population [W]; Time-dependent; Scalar
torque_th	float (7.9.7.1.2)	Collisional toroidal torque to the thermal particle population [N.m]; Time-dependent; Scalar
torque_fast	float (7.9.7.1.2)	Collisional toroidal torque to the fast particle population [N.m]; Time-dependent; Scalar

Type of: dist_global_param:collisions_e (3718) I dist_global_param:collisions_i (3718) I dist_global_param_collisions_z:charge_s
(3719)

7.9.7.1.163 dist_collisional_transfer_1d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	vecflt_type (7.9.7.1.18)	Flux surface averaged collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Vector(npsi)
power_fast	vecflt_type (7.9.7.1.18)	Flux surface averaged collisional power density to the fast particle population [W.m^-3]; Time-dependent; Vector(npsi)
torque_th	vecflt_type (7.9.7.1.18)	Flux surface averaged collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Vector(npsi)
torque_fast	vecflt_type (7.9.7.1.18)	Flux surface averaged collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Vector(npsi)

Type of: dist_profile_values_1d:collisions_e (3721) I dist_profile_values_1d:collisions_i (3721) I dist_profiles_1d:collisions_e (3724) I dist_profiles_1d:collisions_i (3724) I dist_profiles_1d_collisions_z:charge_state (3725)

7.9.7.1.164 dist_collisional_transfer_2d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	matflt_type (7.9.7.1.15)	Collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
power_fast	matflt_type (7.9.7.1.15)	Collisional power density to the fast particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_th	matflt_type (7.9.7.1.15)	Collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_fast	matflt_type (7.9.7.1.15)	Collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)

Type of: dist_profile_values_2d:collisions_e (3722) I dist_profile_values_2d:collisions_i (3722) I dist_profiles2d_collisions_z:char
(3723) I dist_profiles_2d:collisions_e (3726) I dist_profiles_2d:collisions_i (3726)

7.9.7.1.165 dist_distrivec_distfunc_fexp_param

Parameters used to defined the grid coordinates. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.7.1.214)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent
temperature	vecflt_type (7.9.7.1.18)	Reference temperature profile (eV); on the grid in /distsource/source/profiles_1d/rho_tor. Used to define the local thermal energy and the thermal velocity. Time-dependent; Vector(npsi)

Type of: f_expansion:parameters (3767)

7.9.7.1.166 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.7.1.173)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions(:)	topo_regions (7.9.7.1.479)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expan_topo (3714)

7.9.7.1.167 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent

member	type	description
is_delta_f	integer (7.9.7.1.3)	If is_delta_f=1, then the distribution represents the deviation from a Maxwellian; is_delta_f=0, then the distribution represents all particles, i.e. the full-f solution. Time-dependent
markers	weighted_markers (7.9.7.1.526)	Distribution represented by a set of markers (test particles). Time-dependent
f_expan_topo(:)	dist_ff (7.9.7.1.166)	TO BE REMOVED. KEPT TEMPORARILY AS AN ALTERNATIVE TO f_expansion. [Distribution function, f, expanded into a vector of successive approximations (topology-based formulation, without the grid-cpo). The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)]. Time-dependent
f_expansion(:)	f_expansion (7.9.7.1.220)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (3734)

7.9.7.1.168 dist_geometry_0d

Geometrical constants

member	type	description
mag_axis	rz0D (7.9.7.1.379)	Position of the magnetic axis [m]. Time-dependent; Scalar
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor and to measure the current drive. Time-dependent; Scalar

Type of: dist_global_param:geometry (3718)

7.9.7.1.169 dist_geometry_1d

Grids and metric information; including rho_tor, psi, area and volume. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.7.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed by the flux surface [m^3]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)

Type of: dist_profiles_1d:geometry (3724)

7.9.7.1.170 dist_geometry_2d

Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent

member	type	description
coord_type	integer (7.9.7.1.3)	0: Rectangular grid in the (R,Z) coordinates; 1: Rectangular grid in the (rho_tor,theta_geom) coordinates; 2: Rectangular grid in the (rho_tor,theta_straight) coordinates.
r	matflt_type (7.9.7.1.15)	Major radius coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
z	matflt_type (7.9.7.1.15)	Vertical coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
rho_tor	matflt_type (7.9.7.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (n_coord1,n_coord2)
psi	matflt_type (7.9.7.1.15)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (n_coord1,n_coord2)
theta_geom	matflt_type (7.9.7.1.15)	Geometrical poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)
theta_strt	matflt_type (7.9.7.1.15)	Straight field line poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)

Type of: dist_profiles_2d:geometry (3726)

7.9.7.1.171 dist_global_param

Global parameters; spatial constants, volume integrated quantities and quantities averaged over the cross-sectional area. Here the dimensions used refer to: nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin.

member	type	description
geometry	dist_geometry_0d (7.9.7.1.168)	Geometrical constants
state	dist_state_0d (7.9.7.1.183)	Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent
collisions_e	dist_collisional_transfer_0d (7.9.7.1.162)	Collisional exchange with the electrons. Time-dependent
collisions_i(:)	dist_collisional_transfer_0d (7.9.7.1.162)	Collisional exchange with each ion species. The ion indexing should match the one in /distribution/compositions/ions.Time-dependent; Vector(nion)
collisions_z(:)	dist_global_param_collisions_z (7.9.7.1.172)	Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/impurities. Time-dependent; Vector(nimpur)
sources(:)	dist_sources_0d (7.9.7.1.180)	Vector of volume integrated sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for ./source/type. Time-dependent; Scalar

Type of: distri_vec:global_param (3734)

7.9.7.1.172 dist_global_param_collisions_z

Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/imp
Time-dependent

member	type	description
charge_state(:)	dist_collisional_transfer_0d (7.9.7.1.162)	Collisional exchange with the impurities. The ion indexing should match the one in distribution/compositions/impurities/zmin. Time-dependent; Vector(nzimp)

Type of: dist_global_param:collisions_z (3718)

7.9.7.1.173 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.7.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)

member	type	description
ngriddim	integer (7.9.7.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.7.1.19)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.7.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.7.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf(:)	omnigen_surf (7.9.7.1.324)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (3713)

7.9.7.1.174 dist_profile_values_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
state	dist_state_1d (7.9.7.1.184)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.7.1.163)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.7.1.163)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.7.1.178)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
sources(:)	dist_sources_1d (7.9.7.1.181)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)

Type of: dist_profiles_1d:cntr_passing (3724) I dist_profiles_1d:co_passing (3724) I dist_profiles_1d:trapped (3724)

7.9.7.1.175 dist_profile_values_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
state	dist_state_2d (7.9.7.1.185)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_2d (7.9.7.1.164)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.7.1.164)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles2d_collisions_z (7.9.7.1.176)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)

Type of: dist_profiles_2d:cntr_passing (3726) I dist_profiles_2d:co_passing (3726) I dist_profiles_2d:trapped (3726)

7.9.7.1.176 dist_profiles2d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_2d (7.9.7.1.164)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_2d:collisions_z (3722) I dist_profiles_2d:collisions_z (3726)

7.9.7.1.177 dist_profiles_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
geometry	dist_geometry_1d (7.9.7.1.169)	Grids and metric information; including rho_tor, psi, area and volume. Time-dependent
state	dist_state_1d (7.9.7.1.184)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.7.1.163)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.7.1.163)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.7.1.178)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
thermalised	dist_thermalised_1d (7.9.7.1.186)	Representation of the flux surface averaged source of thermal particles, momentum and energy due to thermalisation. Here thermalisation refers to non-thermal particles, sufficiently assimilated to the thermal background to be re-categorised as thermal particles. Note that this source may also be negative if thermal particles are being accelerated such that they form a distinct non-thermal contribution, e.g. due run-away of RF interactions.
sources(:)	dist_sources_1d (7.9.7.1.181)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)
trapped	dist_profile_values_1d (7.9.7.1.174)	Flux surface averaged profile evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_1d (7.9.7.1.174)	Flux surface averaged profile evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_1d (7.9.7.1.174)	Flux surface averaged profile evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_1d (3734)

7.9.7.1.178 dist_profiles_1d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_1d (7.9.7.1.163)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_1d:collisions_z (3721) I dist_profiles_1d:collisions_z (3724)

7.9.7.1.179 dist_profiles_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
geometry	dist_geometry_2d (7.9.7.1.170)	Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent
state	dist_state_2d (7.9.7.1.185)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_2d (7.9.7.1.164)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.7.1.164)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)

member	type	description
collisions_z(:)	dist_profiles2d_collisions_z (7.9.7.1.176)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
trapped	dist_profile_values_2d (7.9.7.1.175)	2D profiles evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_2d (7.9.7.1.175)	2D profiles evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_2d (7.9.7.1.175)	2D profiles evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_2d (3734)

7.9.7.1.180 dist_sources_0d

Volume integrated source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.7.1.182)	Reference identifying the origin and type of source; Time-dependedent
particle	float (7.9.7.1.2)	Source (or sink) rate of particles [1/s]; Time-dependedent; Scalar
momentum	float (7.9.7.1.2)	Source (or sink) rate of toroidal angular momentum [Nm/s]; Time-dependedent; Scalar
energy	float (7.9.7.1.2)	Source (or sink) rate of energy [J/s]; Time-dependedent; Scalar

Type of: dist_global_param:sources (3718)

7.9.7.1.181 dist_sources_1d

Flux surface averaged source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.7.1.182)	Reference identifying the origin and type of source; Time-dependedent
particle	vecflt_type (7.9.7.1.18)	Source (or sink) rate of particles density [1/s/m**3]; Time-dependedent; Vector (npsi)
momentum	vecflt_type (7.9.7.1.18)	Source (or sink) rate of toroidal angular momentum density [Nm/s/m**3]; Time-dependedent; Vector (npsi)
energy	vecflt_type (7.9.7.1.18)	Source (or sink) rate of energy density [J/s/m**3]; Time-dependedent; Vector (npsi)

Type of: dist_profile_values_1d:sources (3721) I dist_profiles_1d:sources (3724)

7.9.7.1.182 dist_sources_reference

Volume integrated source included in the Fokker-Planck model.

member	type	description
type	identifier (7.9.7.1.256)	Identifier for sources and sinks in Fokker-Planck solver; type.flag=1 for wave source, type.flag=2 for particle source, etc (see fokker_planck_source_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes); Time-dependedent
index_waveid	vecint_type (7.9.7.1.19)	Index pointing to /distribution/distri_vec/wave_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)
index_srcid	vecint_type (7.9.7.1.19)	Index pointing to /distribution/distri_vec/source_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)

Type of: dist_sources_0d:source_ref (3727) I dist_sources_1d:source_ref (3728)

7.9.7.1.183 dist_state_0d

Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent

member	type	description
n_particles	float (7.9.7.1.2)	Number of particles in the distribution; the volume integral of the density (note: this is the number of real particles and not markers); Time-dependent
n_part_fast	float (7.9.7.1.2)	Number of fast particles in the distribution; the volume integral of the fast particle density (note: this is the number of real particles and not markers); Time-dependent
enrg	float (7.9.7.1.2)	Total energy distribution [J]; Time-dependent

member	type	description
enrg_fast	float (7.9.7.1.2)	Total energy of the fast particle distribution [J]; Time-dependent
enrg_fast_pa	float (7.9.7.1.2)	Parallel energy of the fast particle distribution [J]; Time-dependent
momentm_fast	float (7.9.7.1.2)	Kinetic toroidal angular momentum of the fast ions [Nms]; Time-dependent; Vector (npsi)
current_dr	float (7.9.7.1.2)	Toroidal non-inductive current drive [A]; Time-dependent.
torque_jrxb	float (7.9.7.1.2)	Toroidal torque due to radial currents [N.m]; Time-dependent.

Type of: dist_global_param:state (3718)

7.9.7.1.184 dist_state_1d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	vecflt_type (7.9.7.1.18)	Flux surface averaged particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Vector (npsi)
dens_fast	vecflt_type (7.9.7.1.18)	Flux surface averaged fast particle density [1/m^3]; Time-dependent; Vector (npsi)
pres	vecflt_type (7.9.7.1.18)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Vector (npsi)
pres_fast	vecflt_type (7.9.7.1.18)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Vector (npsi)
pres_fast_pa	vecflt_type (7.9.7.1.18)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Vector (npsi)
momentm_fast	vecflt_type (7.9.7.1.18)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Vector (npsi)
current	vecflt_type (7.9.7.1.18)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Vector (npsi)
current_fast	vecflt_type (7.9.7.1.18)	Flux surface averaged toroidal current density of fast (non-thermal) particles (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Vector (npsi).
torque_jrxb	vecflt_type (7.9.7.1.18)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Vector (npsi)

Type of: dist_profile_values_1d:state (3721) I dist_profiles_1d:state (3724)

7.9.7.1.185 dist_state_2d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	matflt_type (7.9.7.1.15)	Particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
dens_fast	matflt_type (7.9.7.1.15)	Fast particle density [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
pres	matflt_type (7.9.7.1.15)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast	matflt_type (7.9.7.1.15)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast_pa	matflt_type (7.9.7.1.15)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Matrix (n_coord1, n_coord2)
momentm_fast	matflt_type (7.9.7.1.15)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)
current	matflt_type (7.9.7.1.15)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
current_fast	matflt_type (7.9.7.1.15)	Toroidal current density of fast (non-thermal) particles of the distribution species (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Matrix (n_coord1, n_coord2).
torque_jrxb	matflt_type (7.9.7.1.15)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)

Type of: dist_profile_values_2d:state (3722) I dist_profiles_2d:state (3726)

7.9.7.1.186 dist_thermalised_1d

Representation of the flux surface averaged source of thermal particles, momentum and energy due to thermalisation. Here thermalisation refers to non-thermal particles, sufficiently assimilated to the thermal background to be re-categorised as thermal particles. Note that this source may also be negative if thermal particles are being accelerated such that they form a distinct non-thermal contribution, e.g. due run-away of RF interactions.

member	type	description
particle	vecflt_type (7.9.7.1.18)	Source rate for the thermal particle density due to the thermalisation of fast (non-thermal) particles [1/s/m**3]; Time-dependedent; Vector (npsi)
momentum	vecflt_type (7.9.7.1.18)	Source rate for the toroidal angular momentum density within the thermal particle population due to the thermalisation of fast (non-thermal) particles [N/m**2]; Time-dependedent; Vector (npsi)
energy	vecflt_type (7.9.7.1.18)	Source rate for the energy density within the thermal particle population due to the thermalisation of fast (non-thermal) particles [W/m**3]; Time-dependedent; Vector (npsi)

Type of: dist_profiles_1d:thermalised (3724)

7.9.7.1.187 distri_vec

Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)

member	type	description
wave_id(:)	enum_instance (7.9.7.1.209)	List all waves affecting the distribution, as specified in waves/coherentwave/wave_id (see waves_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_antennas)
source_id(:)	enum_instance (7.9.7.1.209)	List all neutral beam injectors and reactions contributing to the source, as specified in distsource/source/source_id (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_injectors_and_reactions)
species	species_reference (7.9.7.1.432)	Defines the distribution function species represented in this element of distri_vec. Time-dependent
gyro_type	integer (7.9.7.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle position; 2 = given at the gyro centre of the particle position. Time-dependent
fast_filter	fast_thermal_separation_filter (7.9.7.1.221)	Description of how the fast and the thermal particle populations, used in global_param and profiles_1d, were separated.
global_param	dist_global_param (7.9.7.1.171)	Global parameters (in most cases volume integrated and surface averaged quanatities). Time-dependent
profiles_1d	dist_profiles_1d (7.9.7.1.177)	Flux surface averaged profiles.
profiles_2d	dist_profiles_2d (7.9.7.1.179)	2D profiles in the poloidal plane
dist_func	dist_func (7.9.7.1.167)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: distribution:distri_vec (3583)

7.9.7.1.188 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.7.1.217)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.7.1.217)	Particle source rate [1/s]; Time-dependent.
mag_axis	rz0D (7.9.7.1.379)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor. Time-dependent; Scalar

Type of: distsource_source:global_param (3739)

7.9.7.1.189 distsource_line_src_prof

1D profiles representation of a line source. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp = |grad psi| / (R 2 pi). Time-dependent; Vector (npsi)

member	type	description
R	vecflt_type (7.9.7.1.18)	Major radius at the line source. Time-dependent; Vector (npsi)
Z	vecflt_type (7.9.7.1.18)	Vertical position of the line source. Time-dependent; Vector (npsi)
theta	vecflt_type (7.9.7.1.18)	Polidal angle [rad]. Time-dependent; Vector (npsi)
theta_id	vecflt_type (7.9.7.1.18)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.7.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)
pitch	vecflt_type (7.9.7.1.18)	Pitch (i.e. v_parallel/v) of source particles. Time-dependent; Vector (npsi)
energy	vecflt_type (7.9.7.1.18)	Kinetic energy of source particles [eV]. Time-dependent; Vector (npsi)
ang_momentum	vecflt_type (7.9.7.1.18)	Kinetic angular momentum of a single source particles, R m v_phi [Nms]. Time-dependent; Vector (npsi)
src_rate	vecflt_type (7.9.7.1.18)	Source density of particles [1/m^3/s]. Time-dependent; Vector (npsi)

Type of: distsource_source:line_srcprof (3739)

7.9.7.1.190 distsource_profiles_1d

1D radial profiles

member	type	description
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.7.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.7.1.218)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
trq_den	exp1D (7.9.7.1.218)	Flux surface averaged toroidal torque density [N/m^2]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.7.1.218)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (3739)

7.9.7.1.191 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.7.1.19)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.7.1.15)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.7.1.15)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.7.1.15)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.7.1.15)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.7.1.15)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g22	matflt_type (7.9.7.1.15)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.7.1.219)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.7.1.219)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (3739)

7.9.7.1.192 distsource_source

Source

member	type	description
source_id(:)	enum_instance (7.9.7.1.209)	List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for type: NBI or reaction names (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should either be taken from nbi(*)%nbi_unit(*)%name, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)
species	species_reference (7.9.7.1.432)	Defines the source species represented in this element of the vector /distsource/source. Time-dependent
gyro_type	integer (7.9.7.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle birth point; 2 =given at the gyro centre of the birth point.
global_param	distsource_global_param (7.9.7.1.188)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.7.1.190)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.7.1.191)	2D source profiles in terms of two phase space coordinates
line_srcprof(:)	distsource_line_src_prof (7.9.7.1.189)	1D profiles representation of a line source. Time-dependent
source_rate	source_rate (7.9.7.1.426)	Source density of particles in phase space (real space, velocity space, spin state).
markers	weighted_markers (7.9.7.1.526)	Source given as a set of markers (test particles) born per second.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: distsource:source (3584)

7.9.7.1.193 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide ”frac_divcomp” and vertical/horizontal divergence ”div_vert”/”div_horiz”. Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.7.1.18)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.7.1.18)	The vertical beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.7.1.18)	The horizontal beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)

Type of: beamletgroup:divergence (3632)

7.9.7.1.194 e_components

E-field representation in terms of the parallel and circularly polarised components

member	type	description
e_plus	complexgrid_scalar_cplx (7.9.7.1.109)	Left hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_minus	complexgrid_scalar_cplx (7.9.7.1.109)	Right hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_para	complexgrid_scalar_cplx (7.9.7.1.109)	Parallel (to the static magnetic field) component of electric field [V/m]. Time-dependent; Complexgrid_scalar
e_norm	complexgrid_scalar_cplx (7.9.7.1.109)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
e_binorm	complexgrid_scalar_cplx (7.9.7.1.109)	Magnitude of perpendicular (to the static magnetic field) wave electric field tangent to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
b_norm	complexgrid_scalar_cplx (7.9.7.1.109)	Magnitude of perpendicular (to the static magnetic field) wave magnetic field normal to a flux surface [T]; Time-dependent; Complexgrid_scalar

member	type	description
b_binorm	complexgrid_scalar_cplx (7.9.7.1.109)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_para	complexgrid_scalar_cplx (7.9.7.1.109)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Complexgrid_scalar
k_perp	complexgrid_scalar_cplx (7.9.7.1.109)	Perpendicular wave number [1/m]; Time-dependent; Complexgrid_scalar

Type of: fullwave:e_components (3777)

7.9.7.1.195 ecemeasure

Measured values

member	type	description
harmonic	integer (7.9.7.1.3)	Harmonic detected by the ECE channels. Time-dependent.
position	rzphi1Dexp (7.9.7.1.387)	Position of the measurement. Time-dependent. Vector (nchannels)
te	exp1D (7.9.7.1.218)	Electron temperature [eV]. Time-dependent. Vector (nchannels)

Type of: ecediag:measure (3585)

7.9.7.1.196 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.7.1.18)	Frequency of the ECE channels. Vector (nchannels)
los	setup_line_exp (7.9.7.1.418)	Geometry of the line of sight.

Type of: ecediag:setup (3585)

7.9.7.1.197 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.7.1.199)	Electron density [1/m^3]; Time-dependent;
ni(:)	edge_fluid_scalar (7.9.7.1.198)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.7.1.202)	Electron velocity [m/s]; Time-dependent;
vi(:)	edge_fluid_vector (7.9.7.1.201)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.7.1.199)	Electron temperature [eV]; Time-dependent;
ti(:)	edge_fluid_scalar (7.9.7.1.198)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.7.1.202)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso(:)	edge_fluid_vector (7.9.7.1.201)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.7.1.199)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.7.1.202)	Electric current [A]; Time-dependent;
b(:)	complexgrid_vector (7.9.7.1.114)	Magnetic field vector [T]; Time-dependent;

Type of: edge:fluid (3586)

7.9.7.1.198 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value(:)	complexgrid_scalar (7.9.7.1.108)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.7.1.108)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.7.1.114)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.7.1.114)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.7.1.200)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.7.1.108)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (3744) I edge_fluid:ti (3744) I edge_fluid_vector:comps (3748) I edge_fluid_vector_simplestruct:comps (3749)

7.9.7.1.199 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value(:)	complexgrid_scalar (7.9.7.1.108)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.7.1.108)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.7.1.114)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.7.1.114)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.7.1.200)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.7.1.108)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (3744) I edge_fluid:po (3744) I edge_fluid:te (3744)

7.9.7.1.200 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.7.1.115)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.7.1.115)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (3745) I edge_fluid_scalar_simplestruct:transpcoeff (3746)

7.9.7.1.201 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.7.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
align	vecint_type (7.9.7.1.19)	Alignment of vector components, numerical flag. Int vector (number of vector components);
alignid	vecstring_type (7.9.7.1.20)	Alignment of vector components, string description. String vector (number of vector components);
comps(:)	edge_fluid_scalar (7.9.7.1.198)	Components of the vector. Array of structures (number of vector components); Time-dependent;

Type of: edge_fluid:ti_aniso (3744) I edge_fluid:vi (3744)

7.9.7.1.202 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
griduid	integer (7.9.7.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.7.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
comps(:)	edge_fluid_scalar (7.9.7.1.198)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.7.1.19)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.7.1.20)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (3744) I edge_fluid:te_aniso (3744) I edge_fluid:ve (3744)

7.9.7.1.203 edge_kinetic

Kinetic quantities

member	type	description
f(:)	edge_kinetic_distribution (7.9.7.1.204)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (3586)

7.9.7.1.204 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value(:)	complexgrid_scalar (7.9.7.1.108)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue(:)	complexgrid_scalar (7.9.7.1.108)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes(:)	complexgrid_vector (7.9.7.1.114)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source(:)	complexgrid_scalar (7.9.7.1.108)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (3750)

7.9.7.1.205 edges

Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

member	type	description
edge_rzphi	rzphi1D (7.9.7.1.386)	Sequence of points describing a coil edge. Vector (npoints)

Type of: desc_coils:edges (3703)

7.9.7.1.206 edgespecies

Array of edge species.

member	type	description
nucindex	integer (7.9.7.1.3)	Index into list of nuclei; int
zmin	float (7.9.7.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.7.1.2)	Maximum Z of species charge state bundle
label	string (7.9.7.1.4)	String identifying the species (e.g. D0, D+, C0, C+, C+2, ...)

Type of: compositions_type:edgespecies (3667)

7.9.7.1.207 element_desc

Element description (equivalent to wall/compositions/nuclei, can link there using nucindex).

member	type	description
nucindex	integer (7.9.7.1.3)	Index into list of nuclei in wall/compositions/nuclei if the element is present there. Otherwise it is 0 and zn, amn and label have to be set.
label	string (7.9.7.1.4)	Element name/label
zn	float (7.9.7.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.7.1.2)	Mass of atom [amu]

Type of: wall:elements (3618)

7.9.7.1.208 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.7.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.7.1.4)	Name of the device
shot	integer (7.9.7.1.3)	Shot number
run	integer (7.9.7.1.3)	Run number

Type of: mdinfo:md_entry (3830)

7.9.7.1.209 enum_instance

Specifies a specific enumerated instance of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

member	type	description
type	identifier (7.9.7.1.256)	Identify the type of the object or process.
name	string (7.9.7.1.4)	The name of the object or process. Here the object should be an instans of the type specified in the field type.
index	integer (7.9.7.1.3)	Index the separating objects or processes with the same name.

Type of: coherentwave:wave_id (3647) I distri_vec:source_id (3734) I distri_vec:wave_id (3734) I distsource_source:source_id (3739)

7.9.7.1.210 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.7.1.213)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.7.1.212)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.7.1.212)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.7.1.213)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.7.1.213)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.7.1.212)	Plasma current [A];
isoflux	isoflux (7.9.7.1.262)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.7.1.213)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.7.1.280)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.7.1.213)	MSE angles [rad]
ne	eqmes1D (7.9.7.1.213)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.7.1.213)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.7.1.213)	Total pressure [Pa]

member	type	description
q	q (7.9.7.1.364)	Safety factor
xpts	xpts (7.9.7.1.529)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (3588)

7.9.7.1.211 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.7.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.7.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary(:)	rz1Dexp (7.9.7.1.382)	RZ description of the plasma boundary; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, boundary must be allocated to size 1. Time-dependent;
geom_axis	rz0D (7.9.7.1.379)	RZ position of the geometric axis (defined as (Rmin+Rmax) / 2 and (Zmin+Zmax) / 2 of the boundary) [m]; Time-dependent; Scalar
a_minor	float (7.9.7.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.7.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
elong_upper	float (7.9.7.1.2)	Elongation upper of the plasma boundary; Time-dependent; Scalar
elong_lower	float (7.9.7.1.2)	Elongation lower of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.7.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.7.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts(:)	rz1Dexp (7.9.7.1.382)	Position of the Xpoints, first is the active xpoint if diverted [m]; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, xpts must be allocated to size 1. Time-dependent;
left_low_st	rz0D (7.9.7.1.379)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.7.1.379)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.7.1.379)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.7.1.379)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.7.1.379)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar
ang_lcms_upo	float (7.9.7.1.2)	Angle at the LMCS X point upper outer; Time-dependent; Scalar
ang_lcms_upi	float (7.9.7.1.2)	Angle at the LMCS X point upper inner; Time-dependent; Scalar
ang_lcms_lwo	float (7.9.7.1.2)	Angle at the LMCS X point lower outer; Time-dependent; Scalar
ang_lcms_lwi	float (7.9.7.1.2)	Angle at the LMCS X point lower inner; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (3588) I scenario:eqgeometry (3611)

7.9.7.1.212 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.7.1.2)	Measured value of the signal; Time-dependent; Scalar.
source	string (7.9.7.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.7.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.7.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.7.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.7.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.7.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.7.1.2)	chi^2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (3757) I eqconstraint:diamagflux (3757) I eqconstraint:i_plasma (3757)

7.9.7.1.213 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.7.1.18)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.7.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.7.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.7.1.19)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.7.1.18)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.7.1.18)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.7.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.7.1.18)	chiˆ2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (3757) I eqconstraint:faraday (3757) I eqconstraint:flux (3757) I eqconstraint:jsurf (3757) I eqconstraint:mse (3757) I eqconstraint:ne (3757) I eqconstraint:pfcurrent (3757) I eqconstraint:pressure (3757) I magnet_iron:mr (3827) I magnet_iron:mz (3827)

7.9.7.1.214 equatorial_plane

Description of the equitorial plane or any other omnigeuous surfaces. Time-dependent

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
z	vecflt_type (7.9.7.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
s	vecflt_type (7.9.7.1.18)	Distance along the poloidal projection of the equitorial plane (m). Here s=0 should be at the magnetic axis, s>0 on the low field side and s<0 on the high field side. For example, in up-down symmetric fields s=R-R0, where R is the major radius and R0 the major radius at the magnetic axis. Time-dependent; Vector(n_equatorial_grid)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0 is the reference magnetic field, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (n_equitorial_grid)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (n_equitorial_grid)
b_mod	vecflt_type (7.9.7.1.18)	The modulous of the magnetic field along the equitorial plane, or more generally of the omnigeuous surfaces [T]. Time-dependent; Vector (n_equatorial_grid)

Type of: dist_distrivec_distfunc_fexp_param:equatorial (3712) I parameters:equatorial (3879)

7.9.7.1.215 equilibrium_profiles2d_grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.7.1.18)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.7.1.18)	Second dimension values; Time-dependent; Vector (ndim2)
connect	matint_type (7.9.7.1.16)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: equilibrium_profiles_2d:grid (3763)

7.9.7.1.216 equilibrium_profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	vecstring_type (7.9.7.1.20)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	equilibrium_profiles2d_grid (7.9.7.1.215)	definition of the 2D grid
r	matflt_type (7.9.7.1.15)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.7.1.15)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)

member	type	description
psi	matflt_type (7.9.7.1.15)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.7.1.15)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
phi	matflt_type (7.9.7.1.15)	Toroidal flux [Wb]. Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.7.1.15)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.7.1.15)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.7.1.15)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.7.1.15)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.7.1.15)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.7.1.15)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.7.1.15)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.7.1.15)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.7.1.15)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.7.1.15)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (3588)

7.9.7.1.217 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.7.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.7.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.7.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (3622) I antenna_ic:frequency (3623) I antenna_ic:power (3623) I antenna_lh:power (3624) I distsource_global_param:src_pow (3735) I distsource_global_param:src_rate (3735) I fusiondiag_ct_chords:energy (3785) I fusiondiag_spec1d:energy (3791) I fusiondiag_spec2d:energy (3792) I magdiag:diamagener (3597) I magdiag:diamagflux (3597) I magdiag:ip (3597) I nbi_unit:inj_eng_unit (3854) I nbi_unit:pow_unit (3854) I solcurdiag_sol_current:measure (3969) I straps:current (3984) I straps:phase (3984) I toroidfield:bvac_r (3615) I toroidfield:current (3615)

7.9.7.1.218 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value; Time-dependent; Vector
abserror	vecflt_type (7.9.7.1.18)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.7.1.18)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bpol_probes:measure (3640) I coil:coilcurrent (3648) I coil:coilvoltage (3648) I current:spectrum (3698) I cxmeasure:ti (3699) I cxmeasure:vpol (3699) I cxmeasure:vtor (3699) I distsource_profiles_1d:pow_den (3737) I distsource_profiles_1d:src_rate (3737) I distsource_profiles_1d:trq_den (3737) I ecemeasure:te (3742) I flux_loops:measure (3772) I fusiondiag_ct_chords:measure (3785) I fusiondiag_ct_energy:energy (3786) I fusiondiag_ct_energy:measure (3786) I fusiondiag_detect_ct_energy:energy (3787) I fusiondiag_detect_ct_energy:measure (3787) I fusiondiag_emissivity1d:r (3788) I fusiondiag_emissivity1d:z (3788) I fusiondiag_spec1d:measure (3791) I halpha_setup:solidangle (3798) I halphadiag:intensity (3590) I lang_derived:measure (3811) I lang_measure:area (3812) I lang_measure:measure (3812) I lineintegraldiag:measure (3822) I lithmeasure:ne (3823) I magnetise:mr (3828) I magnetise:mz (3828) I modules:amplitude (3843) I modules:phase (3843) I msediag_radia_chord:totradiance (3847) I msediag_radiance:wavelength (3848) I nbi_unit:beamcurrfrac (3854) I nbi_unit:beampowrfrac (3854) I pfcoils:coilcurrent (3890) I pfcoils:coilvoltage (3890) I pfpassive_current:poloidal (3895) I pfpassive_current:toroidal (3895) I pfsupplies:current (3896) I pfsupplies:voltage (3896) I polarimetry:measure (3902) I rfameasure:ti (3923) I rzphi1Dexp:phi (3934) I rzphi1Dexp:r (3934) I rzphi1Dexp:z (3934) I tsmeasure:ne (4035) I tsmeasure:te (4035)

7.9.7.1.219 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.7.1.15)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.7.1.15)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.7.1.15)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (3738) I distsource_profiles_2d:src_rate (3738) I fusiondiag_emissivity2d:r (3789) I fusiondiag_emissivity2d:z (3789) I fusiondiag_spec2d:measure (3792)

7.9.7.1.220 f_expansion

Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

member	type	description
grid	complexgrid (7.9.7.1.103)	Grid for storing the distribution function. Time-dependent; Complexgrid
values	complexgrid_scalar (7.9.7.1.108)	Values of the distribution function [m^-3 (m/s)^-3]. Time-dependent; Complexgrid_scalar.
parameters	dist_distrivec_distfunc_fexp_param (7.9.7.1.165)	Parameters used to defined the grid coordinates. Time-dependent

Type of: dist_func:f_expansion (3714)

7.9.7.1.221 fast_thermal_separation_filter

Description of how the fast and the thermal particle populations were separated.

member	type	description
method	identifier (7.9.7.1.256)	Identifier describing the method used to separate the fast and thermal particle population (see fast_thermal_separation_filter_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes)
energy_sep	vecflt_type (7.9.7.1.18)	Energy at which the fast and thermal particle populations were separated [eV]. Vector (nrho). Time-dependent.

Type of: corefast_values:filter (3674) I distri_vec:fast_filter (3734)

7.9.7.1.222 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.7.1.15)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.7.1.15)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (3707)

7.9.7.1.223 flat_polygon

Polygon lying on a flat surface on a 3D cartesian space (x,y,z). The coordinate system on the surface is defined by the origin, "origin", and two basis vectors in (x,y,z) space, "basis1" and "basis2". The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2, i.e. the j:th point is described by "origin+basis1*coord1(j)+basis2*coord2(j)". As an example, a rectangle centered at the origin, with two of the corners given by "origin+basis1" and "origin+basis2" can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1]. The normal vector of the surface is defined to be in the direction "basis1 x basis2".

member	type	description
origin	xyz0D (7.9.7.1.530)	Origin of the surface coordinate system.

member	type	description
basis1	xyz0D (7.9.7.1.530)	First basis vector on the surface.
basis2	xyz0D (7.9.7.1.530)	First basis vector on the surface.
coord1	vecflt_type (7.9.7.1.18)	First coordinate of the polygon points, conjugate to basis1.
coord2	vecflt_type (7.9.7.1.18)	Second coordinate of the polygon points, conjugate to basis2.

Type of: nbi_nbi_unit_wall:collimator (3852)

7.9.7.1.224 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
position	rz1D (7.9.7.1.380)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.7.1.15)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: equilibrium:flush (3588)

7.9.7.1.225 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.7.1.416)	diagnostic setup information
measure	exp1D (7.9.7.1.218)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (3597)

7.9.7.1.226 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.7.1.18)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.7.1.18)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (3675)

7.9.7.1.227 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.7.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Array2D (nrho,nzimp)
flux_interp	matflt_type (7.9.7.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array2D (nrho,nzimp)

Type of: impurity_type:flux (3806)

7.9.7.1.228 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.7.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)

member	type	description
flux_interp	matflt_type (7.9.7.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (3676)

7.9.7.1.229 focussing

Describes how the beam is focussed.

member	type	description
focal_len_hz	float (7.9.7.1.2)	Horizontal focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum horizontal width [m]. Scalar
focal_len_vc	float (7.9.7.1.2)	Vertical focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum vertical width [m]. Scalar
width_min_hz	float (7.9.7.1.2)	The horizontal width of the beamlet-group at the at the horizontal focal point [m]. Scalar
width_min_vc	float (7.9.7.1.2)	The vertical width of the beamlet-group at the at the vertical focal point [m]. Scalar

Type of: beamletgroup:focussing (3632)

7.9.7.1.230 fullwave

Solution by full wave code

member	type	description
grid	complexgrid (7.9.7.1.103)	Grid for storing the components of the wave field; Time-dependent
e_components	e_components (7.9.7.1.194)	E-field representation in terms of the parallel and circularly polarised components
pol_decomp	pol_decomp (7.9.7.1.354)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]
local	local (7.9.7.1.278)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

Type of: coherentwave:fullwave (3647)

7.9.7.1.231 fusiondiag_colli_3d

Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.7.1.4)	Name tag for the chord. String.
voxels(:)	fusiondiag_voxels (7.9.7.1.246)	Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

Type of: fusiondiag_collimator:colli_3d (3781)

7.9.7.1.232 fusiondiag_colli_circ

Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.7.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.7.1.417)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_circ (7.9.7.1.235)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_circ (3781)

7.9.7.1.233 fusiondiag_colli_poly

Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.7.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.7.1.417)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_poly (7.9.7.1.236)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_poly (3781)

7.9.7.1.234 fusiondiag_collimator

Collimator array.

member	type	description
colli_circ(:)	fusiondiag_colli_circ (7.9.7.1.232)	Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.
colli_poly(:)	fusiondiag_colli_poly (7.9.7.1.233)	Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.
colli_3d(:)	fusiondiag_colli_3d (7.9.7.1.231)	Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

Type of: fusiondiag_fus_product:collimator (3790)

7.9.7.1.235 fusiondiag_colliunit_circ

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
radius	vecflt_type (7.9.7.1.18)	Radius of cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim)
centre	rzphi1D (7.9.7.1.386)	Position of cross section centre; Typically dim=2 for just entry and exit of collimator; Vector (dim)

Type of: fusiondiag_colli_circ:colliunit (3779)

7.9.7.1.236 fusiondiag_colliunit_poly

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
dimension	float (7.9.7.1.2)	Number of edges of cross section.
nodes	rzphi2D (7.9.7.1.389)	Coordinates of nodes defining each cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim,nnodes)

Type of: fusiondiag_colli_poly:colliunit (3780)

7.9.7.1.237 fusiondiag_counts

Integrated emissivity [s^-1].

member	type	description
units	string (7.9.7.1.4)	Energy units (ev, tof - time of flight)
ct_chords(:)	fusiondiag_ct_chords (7.9.7.1.238)	Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1]. Time-dependent
ct_energy(:)	fusiondiag_ct_energy (7.9.7.1.239)	Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1]. Time-dependent
detect_ct(:)	fusiondiag_detect_ct_energy (7.9.7.1.240)	Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1]. Time-dependent

Type of: fusiondiag_fus_product:counts (3790)

7.9.7.1.238 fusiondiag_ct_chords

Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].

member	type	description
name	vecstring_type (7.9.7.1.20)	Name tag for each chord. Vector (nchords)
energy	exp0D (7.9.7.1.217)	Energy like variable span. Use mininum energy when no energy spectra is resolved.
measure	exp1D (7.9.7.1.218)	Measured counts. Vector (nchords)

Type of: fusiondiag_counts:ct_chords (3784)

7.9.7.1.239 fusiondiag_ct_energy

Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].

member	type	description
energy	exp1D (7.9.7.1.218)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.7.1.218)	Measured counts spectra. Vector (nenergy)

Type of: fusiondiag_counts:ct_energy (3784)

7.9.7.1.240 fusiondiag_detect_ct_energy

Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

member	type	description
energy	exp1D (7.9.7.1.218)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.7.1.218)	Measured counts spectra. Vector (nenergy)
diag_func	diag_func (7.9.7.1.161)	Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

Type of: fusiondiag_counts:detect_ct (3784)

7.9.7.1.241 fusiondiag_emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.7.1.4)	Energy units (ev, tof - time of flight)
r	exp1D (7.9.7.1.218)	horizontal grid. Vector (dim)
z	exp1D (7.9.7.1.218)	vertical grid. Vector (dim)
spec1d(:)	fusiondiag_spec1d (7.9.7.1.244)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity1d (3790)

7.9.7.1.242 fusiondiag_emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.7.1.4)	Energy units (ev, tof - time of flight)
r	exp2D (7.9.7.1.219)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.7.1.219)	vertical grid. Vector (dim1,dim2)

member	type	description
spec2d(:)	fusiondiag_spec2d (7.9.7.1.245)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity2d (3790)

7.9.7.1.243 fusiondiag_fus_product

Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.

member	type	description
product	string (7.9.7.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.7.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
collimator	fusiondiag_collimator (7.9.7.1.234)	Collimator array.
counts	fusiondiag_counts (7.9.7.1.237)	Integrated emissivity [s^-1].
emissivity1d	fusiondiag_emissivity1d (7.9.7.1.241)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	fusiondiag_emissivity2d (7.9.7.1.242)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: fusiondiag:fus_product (3589)

7.9.7.1.244 fusiondiag_spec1d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.7.1.217)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp1D (7.9.7.1.218)	reconstruction. Vector (dim)

Type of: fusiondiag_emissivity1d:spec1d (3788)

7.9.7.1.245 fusiondiag_spec2d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.7.1.217)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp2D (7.9.7.1.219)	reconstruction. Vector (dim1,dim2)

Type of: fusiondiag_emissivity2d:spec2d (3789)

7.9.7.1.246 fusiondiag_voxels

Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

member	type	description
centre	rzphi0D (7.9.7.1.385)	Centre of voxel; used also as origin of direction to detector
direction	rzphi0D (7.9.7.1.385)	Second point defining the direction to detector.
volume	float (7.9.7.1.2)	Voxel Volume
solid_angle	float (7.9.7.1.2)	effective solid angle (divided by 4pi) of the voxel towards detector.

Type of: fusiondiag_colli_3d:voxels (3778)

7.9.7.1.247 geom

Geometry between components

member	type	description
dr_bb_sh_ib	float (7.9.7.1.2)	Gap between the breeding blanket module and the shield (inboard) in the equatorial section [m]; Scalar
dr_sh_vv_ib	float (7.9.7.1.2)	Gap between the shield and the vacuum vessel (inboard) in the equatorial section [m]; Scalar
dr_bb_sh_ob	float (7.9.7.1.2)	Gap between the breeding blanket module and the shield (outboard) in the equatorial section [m]; Scalar
dr_sh_vv_ob	float (7.9.7.1.2)	Gap between the shield and the vacuum vessel (outboard) in the equatorial section [m]; Scalar
dr_bb__sh_ib	float (7.9.7.1.2)	Overal radial dimension of the ensemble BB plus shield (inboard) [m]; Scalar
dr_bb__sh_ob	float (7.9.7.1.2)	Overal radial dimension of the ensemble BB plus shield (outboard) [m]; Scalar
delta_int	float (7.9.7.1.2)	Distance between the inner plasma surface and the plasma facing side of the superconducting winding of the toroidal field coil [m]; Scalar

Type of: bb_shield:geom (3573)

7.9.7.1.248 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.7.1.19)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.7.1.383)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (3705)

7.9.7.1.249 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.7.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.7.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.7.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.7.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.7.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.7.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.7.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.7.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.7.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.7.1.279)	Magnetic axis values
q_95	float (7.9.7.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.7.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.7.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar
gamma	float (7.9.7.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (3588)

7.9.7.1.250 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.7.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.7.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.7.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.7.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.7.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.7.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.7.1.2)	normalised beta; Time-dependent; Scalar

member	type	description
beta_pol	float (7.9.7.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.7.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar
geom_axis	rz0D (7.9.7.1.379)	RZ position of the geometric axis (defined as (Rmin+Rmax) / 2 and (Zmin+Zmax) / 2 of the boundary) [m]; Time-dependent; Scalar

Type of: coreprof:globalparam (3579)

7.9.7.1.251 halpha_setup

setup for the lines of sight of the line integrated measurement

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of the channel. Array of strings (nlos).
pivot_point	rzphi1D (7.9.7.1.386)	Pivot point of l.o.s. it can be either the collimator position or entry point on the vessel. Vector (nlos)
horchordang	vecflt_type (7.9.7.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Vector (nlos)
verchordang	vecflt_type (7.9.7.1.18)	Angle of l.o.s. with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Vector (npos)
second_point	rzphi1D (7.9.7.1.386)	Second point defining the l.o.s. together with the pivot_point. Vector (nlos)
solidangle	exp1D (7.9.7.1.218)	Solid angle of the detector; [sr] Vector (nlos)

Type of: halphadiag:setup (3590)

7.9.7.1.252 hcll

Data specific to HCLL blanket concept

member	type	description
mat_lim	mat_lim (7.9.7.1.282)	Material limits specific to HCLL breeding blanket
hcll_bb	hcll_bb (7.9.7.1.253)	HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

Type of: bb_shield:hcll (3573)

7.9.7.1.253 hcll_bb

HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

member	type	description
bb_lifetime	float (7.9.7.1.2)	Breeding blanket lifetime [years]; Scalar
he_inl_t	float (7.9.7.1.2)	Inlet temperature (to the bb module) [K]; Scalar
he_fr	float (7.9.7.1.2)	Coolant mass flow rate in ”the” reference bb module (or in each module) [Kg/s];
he_inl_p	float (7.9.7.1.2)	Helium inlet pressure [Pa]; Scalar
loca_des_p	float (7.9.7.1.2)	Box design pressure (coincident He circuit design pressure) [Pa]; Scalar
he_dp	float (7.9.7.1.2)	Coolant pressure drops in the breeding blankets [Pa]; Scalar
lipb_dp	float (7.9.7.1.2)	Pb-15.7Li pressure drops in the bb [Pa]; Scalar
react	react (7.9.7.1.366)	In the reactor region
inboard	hcllbb_specs (7.9.7.1.254)	Inboard
outboard	hcllbb_specs (7.9.7.1.254)	Outboard

Type of: hcll:hcll_bb (3799)

7.9.7.1.254 hcllbb_specs

Inboard

member	type	description
mass	vecflt_type (7.9.7.1.18)	Mass of inboard or outboard breeding blanket modules (located at equatorial midplane if only one considered) [Kg]; Vector(nmodules)

member	type	description
dr	vecflt_type (7.9.7.1.18)	Inboard or outboard breeding blanket radial build giving the thickness of each layer [m]; Vector(nlayers)
mat	vecflt_type (7.9.7.1.18)	Inboard or outboard breeding blanket materials; Vector(nlayers)
composition	matflt_type (7.9.7.1.15)	Inboard or outboard breeding blanket radial build giving for each layer (1: First Wall protective layer, 2: First Wall, 3 : breeder zone, 4 : back plates, 5 : manifolds), the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Matrix(nlayers(=5), max_nmaterials)
mod_geom	bb_geometry (7.9.7.1.83)	Geometrical parameters of "the" reference region blanket module
mod_neutr	mode_neutr (7.9.7.1.292)	Neutrons "effects"
mod_therm	mode_therm (7.9.7.1.294)	Thermical parameters
mod_th_hyd	mode_th_hyd (7.9.7.1.293)	hydrodynamics parameters
mod_mech	mode_mech (7.9.7.1.291)	Mechanical parameters
mod_lipb	mode_lipb (7.9.7.1.290)	Pb-15.7Li "effects"
mod_tritium	mode_tritium (7.9.7.1.295)	Tritium parameters

Type of: hcll_bb:inboard (3800) I hcll_bb:outboard (3800)

7.9.7.1.255 holes

Structure to describe the placing and properties of the holes

member	type	description
n_holes	integer (7.9.7.1.3)	Number of holes on each wall;
coordinates	coordinates (7.9.7.1.123)	Poloidal and Toroidal coordinates of the center of each hole;
width	width (7.9.7.1.528)	Angular width of each in the poloidal and toroidal direction;
eta	vecflt_type (7.9.7.1.18)	Resistivity of each hole [ohm.m]; Vector (n_holes)

Type of: mhd_res_wall2d:holes (3834)

7.9.7.1.256 identifier

Standard type for identifiers. The three fields: id, flag and description are all representations of the same information. Associated with each application of this identifier-type, there should be a translation table defining the three fields for all objects to be identified.

member	type	description
id	string (7.9.7.1.4)	Short string identifier
flag	integer (7.9.7.1.3)	Integer identifier
description	string (7.9.7.1.4)	Verbose description of identifier

Type of: amns_processType:quality (3621) I composition_neutralscomp:type (3666) I compositions_type:signature (3667) I coredelta_values:deltaid (3672) I corefast_values:fastid (3674) I coreneutrals_atomlist:ionimptype (3689) I coresource_values:sourceid (3693) I coretransp_values:transportid (3697) I dist_sources_reference:type (3729) I enum_instance:type (3756) I fast_thermal_separation_filter:method (3768) I mhd_ideal_wall2d:walltype (3831) I mhd_res_wall2d:walltype (3834) I msediag_polarization:type (3846) I msediag_stokes:type (3851) I pellet_shape:type (3887) I reacprodType:role (3912) I reflectometry_antennas:type (3918) I reflectometry_radfield:type (3919) I simp_apert:type (3968) I species_reference:type (3979) I table:quality (3988) I temporary_nt_0dc:identifier (3992) I temporary_nt_0di:identifier (3993) I temporary_nt_0dr:identifier (3994) I temporary_nt_0ds:identifier (3995) I temporary_nt_1dc:identifier (3996) I temporary_nt_1di:identifier (3997) I temporary_nt_1dr:identifier (3998) I temporary_nt_1ds:identifier (3999) I temporary_nt_2dc:identifier (4000) I temporary_nt_2di:identifier (4001) I temporary_nt_2dr:identifier (4002) I temporary_nt_3dc:identifier (4003) I temporary_nt_3di:identifier (4004) I temporary_nt_3dr:identifier (4005) I temporary_nt_4dr:identifier (4006) I temporary_t_0dc:identifier (4008) I temporary_t_0di:identifier (4009) I temporary_t_0dr:identifier (4010) I temporary_t_0ds:identifier (4011) I temporary_t_1dc:identifier (4012) I temporary_t_1di:identifier (4013) I temporary_t_1dr:identifier (4014) I temporary_t_2dc:identifier (4015) I temporary_t_2di:identifier (4016) I temporary_t_2dr:identifier (4017) I temporary_t_3dc:identifier (4018) I temporary_t_3di:identifier (4019) I temporary_t_3dr:identifier (4020) I temporary_t_4dr:identifier (4021) I trap_type:trap_id (4033) I wall2d:wall_id (4049) I wall3d:wall_id (4051) I wall_limiter:limiter_id (4054) I wall_vessel:vessel_id (4059) I weighted_markers:variable_ids (4073)

7.9.7.1.257 impcoeff

Array over charge states for this particular impurity.

member	type	description
chargestate(:)	coefficients_neutrals (7.9.7.1.99)	Time-dependent

Type of: coreneutrals:impcoeff (3578)

7.9.7.1.258 impurities

Array of impurities.

member	type	description
nucindex	integer (7.9.7.1.3)	Index into list of nuclei; int
i_ion	integer (7.9.7.1.3)	Index of the impurity species in the ions array of structures. Vector (nimp)
nzimp	integer (7.9.7.1.3)	Number of charge states (or bundles) considered for this impurity species.
zmin	vecflt_type (7.9.7.1.18)	Minimum Z of impurity ionisation state bundle. Vector (nzimp)
zmax	vecflt_type (7.9.7.1.18)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Vector (nzimp)
label	vecstring_type (7.9.7.1.20)	String array (nzimp) identifying impurities (e.g. C+, C+2 , C+3, C+4, C+5, C+6, ...)

Type of: compositions_type:impurities (3667)

7.9.7.1.259 impurity_type

Array(nimp). Time-dependent

member	type	description
z	matflt_type (7.9.7.1.15)	Impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
zsq	matflt_type (7.9.7.1.15)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
nz	matflt_type (7.9.7.1.15)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
tz	matflt_type (7.9.7.1.15)	Temperature of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
source_term	sourceimp (7.9.7.1.429)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.7.1.91)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.7.1.148)	Transport coefficients for each charge state
flux	fluximp (7.9.7.1.227)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	matflt_type (7.9.7.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Array2D (nrho,nzimp)
diagnostic	coreimpurediag_type (7.9.7.1.139)	NO DOCS

Type of: coreimpur:impurity (3577)

7.9.7.1.260 inj_spec

Injected species

member	type	description
amn	float (7.9.7.1.2)	Atomic mass number
zn	float (7.9.7.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (3854)

7.9.7.1.261 ions

Array of main plasma ions.

member	type	description
nucindex	integer (7.9.7.1.3)	Index into list of nuclei; int
zion	float (7.9.7.1.2)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)

member	type	description
imp_flag	integer (7.9.7.1.3)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	string (7.9.7.1.4)	String identifying ion (e.g. H+, D+, T+, He+2, C+, ...)

Type of: compositions_type:ions (3667)

7.9.7.1.262 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.7.1.380)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.7.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.7.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.7.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.7.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.7.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (3757)

7.9.7.1.263 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.7.1.18)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (3909)

7.9.7.1.264 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.7.1.20)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.7.1.387)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.7.1.218)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (3594) I langmuirdiag:ne (3594) I langmuirdiag:te (3594)

7.9.7.1.265 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.7.1.20)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.7.1.218)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.7.1.387)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.7.1.218)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (3594) I langmuirdiag:jsat (3594) I langmuirdiag:potential (3594)

7.9.7.1.266 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.7.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline [rad], Tan(alpha)=-k_z/k_R; Time-dependent
beta	float (7.9.7.1.2)	Toroidal launching angle between the poloidal plane and the nominal beam centerline [rad], Sin(beta)=k_phi; Time-dependent

Type of: antenna_ec:launchangles (3622)

7.9.7.1.267 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.7.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.7.1.15)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.7.1.18)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (3981)

7.9.7.1.268 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.7.1.19)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.7.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.7.1.15)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.7.1.15)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.7.1.7)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (3981)

7.9.7.1.269 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.7.1.271)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.7.1.270)	Phase ellipse characteristics of the spot

Type of: launchs:beam (3595)

7.9.7.1.270 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.7.1.15)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.7.1.18)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (3816)

7.9.7.1.271 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.7.1.15)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.7.1.18)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (3816)

7.9.7.1.272 launchsignal

member	type	description
time_launch	vecflt_type (7.9.7.1.18)	Time stamp for particular event e.g. ramp of frequency sweep (but it should not be needed since it should be tied to the cpo time !); Time-dependent
freq	vecflt_type (7.9.7.1.18)	Frequency of the injected waves (should not be needed since it is already used in the injected signal !), typical data stored experimentally; Time-dependent
amplitude	vecflt_type (7.9.7.1.18)	Amplitude of the injected waves (essential if using gaussian, already encoded in the Electric field pattern), typical data stored experimentally; Time-dependent
phase	vecflt_type (7.9.7.1.18)	Phase of the sinusoidal (e.g. voltage) signal injected in the antenna, typical data stored experimentally; Time-dependent

Type of: reflectometry_antennas:launchsignal (3918)

7.9.7.1.273 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.7.1.4)	Name or description of the limiter_unit
closed	string (7.9.7.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.7.1.380)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.7.1.2)	Wall resistivity [ohm.m]; Scalar
delta	float (7.9.7.1.2)	Wall thickness [m] (Optional if a closed facing component is given but useful for simpler closed contour limiter); Time-dependent; Scalar
permeability	float (7.9.7.1.2)	Vessel relative permeability; Scalar

Type of: wall_limiter:limiter_unit (4054)

7.9.7.1.274 limits

Limits

member	type	description
fw_dpa	float (7.9.7.1.2)	max allowable displacement per atom on FW [dpa]; Scalar.
he_appm	float (7.9.7.1.2)	He concentration limit in re-welding areas [appm]; Scalar
ins_dose	float (7.9.7.1.2)	Integral radiation dose in insulator (Epoxy) [Gy] [J*Kg^-1]; Scalar
fn_flu	float (7.9.7.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar
dpa_cu	float (7.9.7.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
wp_nh	float (7.9.7.1.2)	Peak nuclear eating in winding pack [W*m^-3]; Scalar

Type of: bb_shield:limits (3573)

7.9.7.1.275 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.7.1.155)	Generic information on a data item
expression	string (7.9.7.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.7.1.417)	Geometric description of the lines of sight

member	type	description
measure	exp1D (7.9.7.1.218)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.7.1.98)	Code parameters
time	float (7.9.7.1.2)	Time [s]; Time-dependent; Scalar

7.9.7.1.276 lithmeasure

Measured values

member	type	description
ne	exp1D (7.9.7.1.218)	Electron density [m^-3]. Vector (nchannels)

Type of: lithiumdiag:measure (3596)

7.9.7.1.277 lithsetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.7.1.386)	Position of the measurement. Vector (nchannels)

Type of: lithiumdiag:setup (3596)

7.9.7.1.278 local

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

member	type	description
e_plus	array3dflt_type (7.9.7.1.7)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.7.1.7)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.7.1.7)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.7.1.7)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.7.1.8)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.7.1.7)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.7.1.7)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.7.1.7)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.7.1.7)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.7.1.7)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.7.1.7)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.7.1.7)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm	array3dflt_type (7.9.7.1.7)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.7.1.7)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.7.1.7)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.7.1.7)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
k_perp	array3dflt_type (7.9.7.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (3777)

7.9.7.1.279 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.7.1.379)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.7.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.7.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (3796)

7.9.7.1.280 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.7.1.213)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.7.1.213)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (3757)

7.9.7.1.281 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.7.1.218)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.7.1.218)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (3593)

7.9.7.1.282 mat_lim

Material limits specific to HCLL breeding blanket

member	type	description
cool_t_lim	float (7.9.7.1.2)	Min, max allowable He temperature [K];
steel_t_lim	float (7.9.7.1.2)	Min, max allowable steel temperature [K];
lipb_t_lim	float (7.9.7.1.2)	Min, max allowable LiPb temperature [K];

Type of: hcll:mat_lim (3799)

7.9.7.1.283 mdinfo

Information related to machine description for this entry

member	type	description
shot_min	integer (7.9.7.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.7.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.7.1.208)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.7.1.284 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	identifier (7.9.7.1.256)	Tag the type of wall to be used, 0 (conformal) or 1 (free)

member	type	description
position	rz1D (7.9.7.1.380)	RZ description of the wall;

Type of: wall2d_mhd:ideal_wall (4050)

7.9.7.1.285 mhd_mode

MHD modes in the confined plasma

member	type	description
modenum	integer (7.9.7.1.3)	Toroidal mode number of the MHD mode; Scalar; Time-dependent.
growthrate	float (7.9.7.1.2)	Linear growthrate of the mode [Hz]; Scalar; Time-dependent.
frequency	float (7.9.7.1.2)	Frequency of the mode [Hz]; Scalar; Time-dependent.
plasma	mhd_plasma (7.9.7.1.286)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.7.1.288)	External modes

Type of: mhd:n (3598)

7.9.7.1.286 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.7.1.18)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
m	matflt_type (7.9.7.1.15)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
disp_perp	matcplx_type (7.9.7.1.14)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)
disp_par	matcplx_type (7.9.7.1.14)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)
tau_alfven	vecflt_type (7.9.7.1.18)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_res	vecflt_type (7.9.7.1.18)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.7.1.122)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.7.1.289)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.7.1.289)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.7.1.289)	Perturbed velocity (in Fourier space) [m/s]
p_pert	matcplx_type (7.9.7.1.14)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 2D (npsi,nm)
rho_mass_per	matcplx_type (7.9.7.1.14)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 2D (npsi,nm)
temp_per	matcplx_type (7.9.7.1.14)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_mode:plasma (3832)

7.9.7.1.287 mhd_res_wall2d

Resistive wall

member	type	description
walltype	identifier (7.9.7.1.256)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
delta	float (7.9.7.1.2)	Wall thickness [m]; Scalar
eta	float (7.9.7.1.2)	Wall resistivity [ohm.m]; Scalar
npoloidal	integer (7.9.7.1.3)	Number of poloidal coordinates for each wall (dimension of R and Z);
position	rz1D (7.9.7.1.380)	RZ description of the wall; wall coordinates are defined at a middle line (line passing through the middle of the real wall as defined by thickness parameter delta)
holes	holes (7.9.7.1.255)	Structure to describe the placing and properties of the holes

Type of: wall2d_mhd:res_wall (4050)

7.9.7.1.288 mhd_vacuum

External modes

member	type	description
m	array3dflt_type (7.9.7.1.7)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
coord_sys	coord_sys (7.9.7.1.122)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.7.1.289)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.7.1.289)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd_mode:vacuum (3832)

7.9.7.1.289 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	matcplx_type (7.9.7.1.14)	Fourier components of first coordinate; Time-dependent; Array 2D (npsi,nm)
coord2	matcplx_type (7.9.7.1.14)	Fourier components of second coordinate; Time-dependent; Array 2D (npsi,nm)
coord3	matcplx_type (7.9.7.1.14)	Fourier components of third coordinate; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_plasma:a_pert (3833) I mhd_plasma:b_pert (3833) I mhd_plasma:v_pert (3833) I mhd_vacuum:a_pert (3835) I mhd_vacuum:b_pert (3835)

7.9.7.1.290 mode_lipb

Pb-15.7Li ”effects”

member	type	description
lp_rec_day	float (7.9.7.1.2)	nb of Pb-15.7Li recirculation per day [Pa]; Scalar
bb_lp_fr	vecflt_type (7.9.7.1.18)	Pb-15.7Li mass flow rate in ”the” bb module (or in each bb module) [Kg/s]; Vector(nmodules)
lp_inl_p	float (7.9.7.1.2)	Pb-15.7Li inlet pressure [Pa]; Scalar
bu_dp_lp	float (7.9.7.1.2)	Pb-15.7Li pressure drops in the breeder unit [Pa]; Scalar
man_dp_lp	float (7.9.7.1.2)	Pb-15.7Li pressure drops in the bb manifolds [Pa]; Scalar
tot_dp_lp	float (7.9.7.1.2)	Pb-15.7Li total pressure drops [Pa]; Scalar
bu_lp_ave_t	float (7.9.7.1.2)	Pb-15.7Li average temperature in a breeder unit [K]; Scalar
bu_lp_max_t	float (7.9.7.1.2)	Pb-15.7Li max temperature in a breeder unit [K]; Scalar

Type of: hcllbb_specs:mod_lipb (3801)

7.9.7.1.291 mode_mech

Mechanical parameters

member	type	description
fw_min_ts_mg	float (7.9.7.1.2)	Min margin to tensile stress limit in the first wall; Scalar
fw_min_bd_mg	float (7.9.7.1.2)	Min margin to banding stress limit in the first wall; Scalar
sg_min_ts_mg	float (7.9.7.1.2)	Min margin to tensile stress limit in the stiffening grid; Scalar
sg_min_bd_mg	float (7.9.7.1.2)	Min margin to bending stress limit in the stiffening grid; Scalar
cp_min_ts_mg	float (7.9.7.1.2)	Min margin to tensile stress limit in the cooling plate; Scalar
cp_min_bd_mg	float (7.9.7.1.2)	Min margin to bending stress limit in the cooling plate; Scalar
min_ts_mg_ac	float (7.9.7.1.2)	Min tensile margin in accidental conditions; Scalar
min_bd_mg_ac	float (7.9.7.1.2)	Min bending margin in accidental conditions; Scalar

Type of: hcllbb_specs:mod_mech (3801)

7.9.7.1.292 mode_neutr

Neutrons ”effects”

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius position at wich power density is calculated [m]; Vector(nr)
pd_rad	vecflt_type (7.9.7.1.18)	Power density distribution in radial direction [W/m^3]; Vector(nr)
lipb_coef_pd	vecflt_type (7.9.7.1.18)	Pb-15.7Li power density distribution in radial direction: coefficients of bi-exponential law if this one is used [W/m^-3,W/m^-3,m^-1,m^-1]; Matrix
steel_coef_pd	vecflt_type (7.9.7.1.18)	Eurofer power density distribution in radial direction: coefficients of bi-exponential law if this one is used
pow_exchange	power_exchange (7.9.7.1.358)	NO DOCS

Type of: hcllbb_specs:mod_neutr (3801)

7.9.7.1.293 mode_th_hyd

hydrodynamics parameters

member	type	description
fw_dp_he	float (7.9.7.1.2)	Pressure drops in the first wall [Pa]; Scalar
sg_dp_he	float (7.9.7.1.2)	Pressure drops in the stiffening grid [Pa]; Scalar
cp_dp_he	float (7.9.7.1.2)	Pressure drops in the cooling plates [Pa]; Scalar
man_dp_he	float (7.9.7.1.2)	Pressure drops in the manifolds [Pa]; Scalar
tot_dp_he	float (7.9.7.1.2)	Total pressure drops in bb module [Pa]; Scalar
bp_dp_he	float (7.9.7.1.2)	Total pressure drops in the by pass (if any) [Pa]; ScalarScalar
circ_dp_he	float (7.9.7.1.2)	Pressure drops in one He circuit [Pa]; Scalar

Type of: hcllbb_specs:mod_th_hyd (3801)

7.9.7.1.294 mode_therm

Thermical parameters

member	type	description
he_fr	float (7.9.7.1.2)	Coolant mass flow rate in "the" reference bb (inboard or outboard) module [Kg/s]; Scalar
perc_bp_he	float (7.9.7.1.2)	% of Helium going through the bypass (set to 0 if not otherwise specified)
he_out_t	float (7.9.7.1.2)	Outlet temperature (from the bb module) [K]; Scalar
fw_he_out_t	float (7.9.7.1.2)	First wall outlet temperature [K]; Scalar
sg_he_out_t	float (7.9.7.1.2)	Stiffening grid outlet temperature [K]; Scalar
cp_he_out_t	float (7.9.7.1.2)	Cooling plates outlet temperature [K]; Scalar
fw_st_max_t	float (7.9.7.1.2)	First wall eurofer maximum temperature [K]; Scalar
sg_st_max_t	float (7.9.7.1.2)	Stiffening grid eurofer maximum temperature [K]; Scalar
cp_st_max_t	float (7.9.7.1.2)	Cooling plates eurofer maximum temperature [K]; Scalar

Type of: hcllbb_specs:mod_therm (3801)

7.9.7.1.295 mode_tritium

Tritium parameters

member	type	description
t_conc_lipb	float (7.9.7.1.2)	Tritium concentration in Pb-15.7Li; Scalar
t_conc_he	float (7.9.7.1.2)	Tritium concentration in He; Scalar

Type of: hcllbb_specs:mod_tritium (3801)

7.9.7.1.296 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.7.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.7.1.3)	Number of modules per antenna in the toroidal direction.

member	type	description
ima_theta	vecint_type (7.9.7.1.19)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.7.1.19)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.7.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.7.1.218)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.7.1.218)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.7.1.518)	Waveguides description

Type of: antennalh_setup:modules (3626)

7.9.7.1.297 msediag_emiss_chord

MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

member	type	description
volume	float (7.9.7.1.2)	Emitting volume (m^-3). Scalar
setup	rzphi1D (7.9.7.1.386)	Description of the line of sight (for the moment a line - not a cone of sight). Vector (npos).
polarization(:)	msediag_polarization (7.9.7.1.299)	Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.
quantiaxis	vecflt_type (7.9.7.1.18)	Quantization axis for the line of sight (eR,ePhi,eZ). It is a unitary vector associated to the line of sight and to the emissivity, e.g. the Lorentzian electric field direction); Vector (3). Time-dependent

Type of: msediag_emissivity:emiss_chord (3845)

7.9.7.1.298 msediag_emissivity

Emissivity characteristics.

member	type	description
wavelength	vecflt_type (7.9.7.1.18)	Wavelength [m]. Vector (nwavelength)
emiss_chord(:)	msediag_emiss_chord (7.9.7.1.297)	MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:emissivity (3980)

7.9.7.1.299 msediag_polarization

Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.7.1.256)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
spec_emiss	matflt_type (7.9.7.1.15)	Spectral emissivity of a particular polarization (Wm^-3sr-^1). Matrix (npos,nwavelength). Time-dependent

Type of: msediag_emiss_chord:polarization (3844)

7.9.7.1.300 msediag_radia_chord

MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

member	type	description
setup	msediag_setup (7.9.7.1.302)	Geometry for the observation line of sight

member	type	description
stokes(:)	msediag_stokes (7.9.7.1.304)	Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.
totradiance	exp1D (7.9.7.1.218)	Total Radiance integrated along the lines of sight (Wm^-2sr-^1). Vector (nwavelength)

Type of: msediag_radiance:radia_chord (3848)

7.9.7.1.301 msediag_radiance

Emissivity characteristics.

member	type	description
wavelength	exp1D (7.9.7.1.218)	Wavelength [m]. Vector (nwavelength)
radia_chord(:)	msediag_radia_chord (7.9.7.1.300)	MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:radiance (3980)

7.9.7.1.302 msediag_setup

Geometry for the observation line of sight

member	type	description
pivot_point	rzphi0D (7.9.7.1.385)	Pivot point of mse line of sight. Scalar
horchordang	float (7.9.7.1.2)	Angle [rad] of horizontal projection of mse line of sight with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.7.1.2)	Angle of mse line of sight with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.7.1.385)	Second point defining the mse line of sight together with the pivot_point. Scalar

Type of: msediag_radia_chord:setup (3847)

7.9.7.1.303 msediag_setup_polarimetry

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.7.1.391)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.7.1.15)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: polarimetry:setup (3902)

7.9.7.1.304 msediag_stokes

Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.7.1.256)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
vector	matflt_type (7.9.7.1.15)	Stokes vector (I,U,S,V) as a function of the wavelength. Vector (4,nwavelength).

Type of: msediag_radia_chord:stokes (3847)

7.9.7.1.305 nbi_nbi_unit_wall

Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.

member	type	description
surface	nbi_nbi_unit_wall_surface (7.9.7.1.306)	A collimating solid surface described by a polygon; no particle can pass through this surface
collimator(:)	flat_polygon (7.9.7.1.223)	Vector of collimating holes (openings). Each hole has to be flat, i.e. it lies on a surface. Particles can only cross this surface by passing through the hole. To describe the hole we first construct a coordinate system on the surface by defining the original and two basis vectors in (x,y,z) space. The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2. As an example, a rectangle with two of the corners given by "origin+basis1" and "origin+basis2" can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1].

Type of: nbi_unit:wall (3854)

7.9.7.1.306 nbi_nbi_unit_wall_surface

A collimating solid surface described by a polygon; no particle can pass through this surface

member	type	description
triangle(:)	trianglexyz (7.9.7.1.487)	Triangular wall surface described by its three corners: point1, point2, and point3. Vector(n_triangles)
rectangle(:)	rectanglexyz (7.9.7.1.367)	Rectangular wall surface described by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point should be calculated from the other three as point00=point01+poin10-point11. Vector(n_rectangles)

Type of: nbi_nbi_unit_wall:surface (3852)

7.9.7.1.307 nbi_unit

Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent

member	type	description
name	string (7.9.7.1.4)	Name of the neutral beam injector
inj_spec	inj_spec (7.9.7.1.260)	Injected species
pow_unit	exp0D (7.9.7.1.217)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.7.1.217)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.7.1.218)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.7.1.218)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
beamletgroup(:)	beamletgroup (7.9.7.1.85)	Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamletgroup provides a fair description.
wall	nbi_nbi_unit_wall (7.9.7.1.305)	Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: nbi:nbi_unit (3600)

7.9.7.1.308 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.7.1.15)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.7.1.15)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)

member	type	description
flux	vecflt_type (7.9.7.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.7.1.322)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ne_transp (3697)

7.9.7.1.309 neoclassic_impurity

Array(nimp). Time-dependent

member	type	description
utheta_z	matflt_type (7.9.7.1.15)	Ion poloidal flow for various charge states [m/s]. Time-dependent. Matrix(nrho,nzimp).

Type of: neoclassic:impurity (3601)

7.9.7.1.310 neut_results

Neutronic results

member	type	description
tbr_bk	float (7.9.7.1.2)	Resulting global breeding blanket tritium breeding ratio; Scalar
tbr_bk_inb	float (7.9.7.1.2)	Resulting inboard breeding blanket Tritium Breeding Ratio [-]; Scalar
tbr_bk_outb	float (7.9.7.1.2)	Resulting outboard breeding blanket Tritium Breeding Ratio [-]; Scalar
me_bk	float (7.9.7.1.2)	Energy multiplication factor in breeding blanket; Scalar
me_shield	float (7.9.7.1.2)	Energy multiplication factor in shield; Scalar
he_appm_res	float (7.9.7.1.2)	He production in areas needing to be rewelded; Scalar
ins_dose_max	float (7.9.7.1.2)	Integral radiation dose in insulator (Epoxy) [J*Kg^-1]; Scalar
fn_flu_max	float (7.9.7.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar
dpa_cu_max	float (7.9.7.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
fn_flux_bz	float (7.9.7.1.2)	Fast neutron flux in breeding zone inboard [m^2.s^-1]; Scalar
fn_flux_bp	float (7.9.7.1.2)	Fast neutron flux in backplate inboard [m^2.s^-1]; Scalar
fn_flux_man	float (7.9.7.1.2)	Fast neutron flux in manifold inboard [m^2.s^-1]; Scalar
fn_flux_sh	float (7.9.7.1.2)	Fast neutron flux in shield inboard [m^2.s^-1]; Scalar
p_nh_bk	float (7.9.7.1.2)	Total nuclear heating in blanket [W]; Scalar
p_nh_sh	float (7.9.7.1.2)	Total nuclear heating in shield [W]; Scalar

Type of: bb_shield:neut_results (3573)

7.9.7.1.311 neutral_complex_type

Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent

member	type	description
neutraltype(:)	coreneutrals_neutraltype (7.9.7.1.143)	Array (ntype) over neutral types. Time-dependent.
prad0	vecflt_type (7.9.7.1.18)	Power radiated by neutrals [W.m^-3]. Vector (nrho). Time-dependent.

Type of: coreneutrals:profiles (3578)

7.9.7.1.312 neutro_resul

Neutronic results

member	type	description
nwl_max	float (7.9.7.1.2)	Maximum neutron wall load (on equatorial outboard module) [W*m^-2]; Scalar
nwl_pol_prof	vecflt_type (7.9.7.1.18)	NWL scaling factor coefficient for each bb module; Vector(nmodules)

Type of: bb:neutro_resul (3628)

7.9.7.1.313 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.7.1.7)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.7.1.7)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.7.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.7.1.323)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ni_transp (3697)

7.9.7.1.314 ntm_mode

List of the various NTM modes appearing during the simulation. If a mode appears several times, use several indices in this arra of structure with the same m,n values. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.

member	type	description
onset	ntm_mode_onset (7.9.7.1.319)	NTM onset characteristics. Time-dependent
full_evol	ntm_mode_full_evol (7.9.7.1.317)	Detailed NTM evolution on a finer timebase than the CPO timebase. Time-dependent.
evolution	ntm_mode_evolution (7.9.7.1.315)	NTM evolution corresponding to the CPO timebase. Time-dependent.

Type of: ntm:mode (3602)

7.9.7.1.315 ntm_mode_evolution

NTM evolution corresponding to the CPO timebase. Time-dependent.

member	type	description
w	float (7.9.7.1.2)	Full width of the mode [m]. Time-dependent.
dwdt	float (7.9.7.1.2)	Time derivative of the full width of the mode [m/s]. Time-dependent.
phase	float (7.9.7.1.2)	Phase of the mode [rad]. Time-dependent.
dphasedt	float (7.9.7.1.2)	Time-derivative of the phase of the mode [rad]. Time-dependent.
frequency	float (7.9.7.1.2)	Frequency of the mode [Hz]. Time-dependent.
dfrequencydt	float (7.9.7.1.2)	Time derivative of the frequency of the mode [Hz]. Time-dependent.
island	ntm_mode_evolution_island (7.9.7.1.316)	Island description
n	integer (7.9.7.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.7.1.3)	Poloidal mode number. Time-dependent.
deltaw_value	vecflt_type (7.9.7.1.18)	Vector(ntype). Time-dependent.
deltaw_name	vecstring_type (7.9.7.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	vecflt_type (7.9.7.1.18)	Vector(ntype_torque). Time-dependent.
torque_name	vecstring_type (7.9.7.1.20)	Name of the torque contribution. String vector (ntype). Time-dependent.
delta_diff	vecflt_type (7.9.7.1.18)	Extra diffusion coefficient for Te, ne, Ti equation. Vector(nequation). Time-dependent.
description	string (7.9.7.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	float (7.9.7.1.2)	[m]. Time-dependent.

Type of: ntm_mode:evolution (3861)

7.9.7.1.316 ntm_mode_evolution_island

Island description

member	type	description
geometry	vecflt_type (7.9.7.1.18)	Description of island geometry [?]. Vector(nradial). Time-dependent.
coord_values	vecflt_type (7.9.7.1.18)	Radial coordinate values [?]. Vector(nradial). Time-dependent.
coord_desc	string (7.9.7.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_evolution:island (3862)

7.9.7.1.317 ntm_mode_full_evol

Detailed NTM evolution on a finer timebase than the CPO timebase. Time-dependent.

member	type	description
time_evol	vecflt_type (7.9.7.1.18)	Time array used to describe the detailed mode evolution which can be different from the CPO timebase [s]. Vector(ntime_evol). Time-dependent.
w	vecflt_type (7.9.7.1.18)	Full width of the mode [m]. Vector(ntime_evol). Time-dependent.
dwdt	vecflt_type (7.9.7.1.18)	Time derivative of the full width of the mode [m/s]. Vector(ntime_evol). Time-dependent.
phase	vecflt_type (7.9.7.1.18)	Phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
dphasedt	vecflt_type (7.9.7.1.18)	Time-derivative of the phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
frequency	vecflt_type (7.9.7.1.18)	Frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
dfrequencydt	vecflt_type (7.9.7.1.18)	time derivative of the frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
island	ntm_mode_full_evol_island (7.9.7.1.318)	Island description
n	integer (7.9.7.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.7.1.3)	Poloidal mode number. Time-dependent.
deltaw_value	matflt_type (7.9.7.1.15)	Matrix(ntype, ntime_evol). Time-dependent.
deltaw_name	vecstring_type (7.9.7.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	matflt_type (7.9.7.1.15)	Matrix(ntype_torque, ntime_evol). Time-dependent.
torque_name	vecstring_type (7.9.7.1.20)	Name of the torque contribution. String vector (ntype_torque). Time-dependent.
delta_diff	matflt_type (7.9.7.1.15)	Extra diffusion coefficient for Te, ne, Ti equation. Matrix(nequation, ntime_evol). Time-dependent.
description	string (7.9.7.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	vecflt_type (7.9.7.1.18)	[m]. Vector(ntime_evol) Time-dependent.

Type of: ntm_mode:full_evol (3861)

7.9.7.1.318 ntm_mode_full_evol_island

Island description

member	type	description
geometry	matflt_type (7.9.7.1.15)	Description of island geometry [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_values	matflt_type (7.9.7.1.15)	Radial coordinate values [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_desc	string (7.9.7.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_full_evol:island (3864)

7.9.7.1.319 ntm_mode_onset

NTM onset characteristics. Time-dependent

member	type	description
w	float (7.9.7.1.2)	Seed island full width [m]. Time-dependent.
time_onset	float (7.9.7.1.2)	Onset time [s]. Time-dependent.
time_offset	float (7.9.7.1.2)	Offset time [s] (when a mode disappears). If the mode reappears later in the simulation, use another index of the mode array of structure. Time-dependent.
phase	float (7.9.7.1.2)	Phase of the mode at onset [rad]. Time-dependent.
n	integer (7.9.7.1.3)	Toroidal mode number. Time-dependent.
m	integer (7.9.7.1.3)	Poloidal mode number. Time-dependent.
description	string (7.9.7.1.4)	Cause of the mode onset. Time-dependent.

Type of: ntm_mode:onset (3861)

7.9.7.1.320 nuclei

Array of nuclei considered.

member	type	description
zn	float (7.9.7.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.7.1.2)	Mass of atom [amu]
label	string (7.9.7.1.4)	String identifying element (e.g. H, D, T, He, C, ...)

Type of: compositions_type:nuclei (3667)

7.9.7.1.321 objects

Definition of space objects (nodes, edges, faces, cells, ...).; A space object of dimension n is defined; by enumerating the (n-1)-dimensional space objects defining its boundaries

member	type	description
boundary	matint_type (7.9.7.1.16)	Lists of (n-1)-dimensional space objects defining the boundary of an n-dimensional space object.; Matrix(number of objects of dimension n, maximum number of boundary objects).; First dimension: object index, second dimension: boundary object index
neighbour	array3dint_type (7.9.7.1.8)	Connectivity information. Array (number of objects, maximum number of boundaries per object, maximum number of neighbours per boundary).; Stores the indices of the n-dimensional objects adjacent to the given n-dimensional object.;An object can possibly have multiple neighbours on every boundary.; First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array4dflt_type (7.9.7.1.9)	Geometry data matrix associated with every object. Float array (number of objects, number of geometry coeff. 1, number of geometry coeff. 2, number of geometries).; The exact definition depends on the geometry type of the space (complexgrid_space.geotype).; First dimension: object index, second+third dimension: geometry coefficient matrix row+column, third dimension: geometry index (for definition of multiple geometries).
measure	matflt_type (7.9.7.1.15)	Measure of space objects, i.e. physical size (length for 1d, area for 2d, volume for 3d objects,...). [m^dim].; First dimension: object index, second dimension: geometry index

Type of: complexgrid_space:objects (3659)

7.9.7.1.322 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.7.1.18)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.7.1.18)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.7.1.18)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.7.1.18)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (3855) I transcoefel:off_diagonal (4029)

7.9.7.1.323 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.7.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.7.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

member	type	description
d_te	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.7.1.15)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (3860) I transcoefion:off_diagonal (4031) I transcoefvtor:off_diagonal (4032)

7.9.7.1.324 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.7.1.380)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.7.1.18)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (3720)

7.9.7.1.325 orbit_global_param

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.7.1.19)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.7.1.18)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.7.1.18)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.7.1.18)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	orbit_special_pos (7.9.7.1.328)	Special positions along an orbit (like turning points).

Type of: orbit:global_param (3603)

7.9.7.1.326 orbit_midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.7.1.327)	Position at outer mid-plane
inner	orbit_pos (7.9.7.1.327)	Position at inner mid-plane

Type of: orbit_special_pos:midplane (3875)

7.9.7.1.327 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.7.1.18)	Altitude [m]; Time-dependent; Vector (norbits).
phi	vecflt_type (7.9.7.1.18)	Toroidal angle [rad]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.7.1.18)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.7.1.18)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: orbit_midplane:inner (3873) I orbit_midplane:outer (3873) I orbit_turning_pts:lower (3876) I orbit_turning_pts:upper

(3876)

7.9.7.1.328 orbit_special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	orbit_midplane (7.9.7.1.326)	Intersections with the midplane
turning_pts	orbit_turning_pts (7.9.7.1.329)	Location of turning points

Type of: orbit_global_param:special_pos (3872)

7.9.7.1.329 orbit_turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.7.1.327)	Position at upper turning point
lower	orbit_pos (7.9.7.1.327)	Position at lower turning point

Type of: orbit_special_pos:turning_pts (3875)

7.9.7.1.330 origin

member	type	description
refpos	rzphi0D (7.9.7.1.385)	Reference point of the local coordinate system; the position of either the last quasi-optical element, or the horn antenna. Default is facing horizontally away from the central axis. The local coordinate system is cartesian, with the local z axis defining the nominal beam direction, x parallel to the global z, and y completing the right-handed local coordinate system
alpha	float (7.9.7.1.2)	Poloidal tilt angle [rad]; angle between local z axis and horizontal plane, 0 is facing outward, pi/2 is downwards, pi inwards
beta	float (7.9.7.1.2)	Toroidal tilt angle [rad]; angle between local z axis and r-z plane
gamma	float (7.9.7.1.2)	Rotation angle about local z axis [rad]

Type of: reflectometry_antennas:origin (3918)

7.9.7.1.331 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.7.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.7.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.7.1.4)	Code parameters schema.

Type of

7.9.7.1.332 parameters

Parameters used to defined the grid coordiantes. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.7.1.214)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent

Type of: source_rate:parameters (3973)

7.9.7.1.333 pellet

Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.

member	type	description
shape	pellet_shape (7.9.7.1.340)	Structure defining the shape of the pellet. Time-dependent.
elements	pellet_elements (7.9.7.1.336)	Structure defining the composition of the pellet. Time-dependent.
geometry	pellet_geometry (7.9.7.1.337)	Structure describing the geometry of the pellet path. Time-dependent.
pathprofiles	pellet_pathprofiles (7.9.7.1.339)	Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.
deposition	pellet_deposition (7.9.7.1.335)	Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

Type of: pellets:pellet (3604)

7.9.7.1.334 pellet_angles

Angles of the pellet trajectory. Time-dependent.

member	type	description
horizontal	float (7.9.7.1.2)	Angle [rad] of the horizontal projection of the path with poloidal cross section (0 for HFS , then counter clockwise looking from above), scalar. Time-dependent.
vertical	float (7.9.7.1.2)	Angle [rad] of the path with vertical axis section (0 for bottom-top trajectory, then counter clockwise), scalar. Time-dependent.

Type of: pellet_geometry:angles (3884)

7.9.7.1.335 pellet_deposition

Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

member	type	description
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m], array (NRHO). Time-dependent.
rho_pol	vecflt_type (7.9.7.1.18)	Poloidal flux coordinate [m], array(NRHO). Time-dependent.
delta_ne	vecflt_type (7.9.7.1.18)	Instant change of ne profile due to pellet ablation [m^-3], array(NRHO). Time-dependent.
delta_te	vecflt_type (7.9.7.1.18)	Instant change of Te profile due to pellet ablation [eV], array(NRHO). Time-dependent.
delta_ni	matflt_type (7.9.7.1.15)	Instant change of ni profile due to pellet ablation [m^-3], array (NRHO, NION). Time-dependent.
delta_ti	matflt_type (7.9.7.1.15)	Instant change of Ti profile due to pellet ablation [eV], array (NRHO, NION). Time-dependent.
delta_vtor	matflt_type (7.9.7.1.15)	Instant change of Vtor profile due to pellet ablation [m/s], array (NRHO, NION). Time-dependent.
impurity(:)	pellet_impurity (7.9.7.1.338)	Contributions to impurity array of structures (NIMP). Time-dependent

Type of: pellet:deposition (3880)

7.9.7.1.336 pellet_elements

Structure defining the composition of the pellet. Time-dependent.

member	type	description
nucindex	vecint_type (7.9.7.1.19)	Index into list of nuclei, array over elements in pellet (NATM). Time-dependent.
density	vecflt_type (7.9.7.1.18)	Material density of each element of the pellet, array over elements (NATM). Time-dependent.
fraction	vecflt_type (7.9.7.1.18)	Fraction of each element in the pellet, array over elements in pellet (NATM). Time-dependent.
subl_energy	vecflt_type (7.9.7.1.18)	Sublimation energy per atom, array over elements in pellet (NATM). Time-dependent.

Type of: pellet:elements (3880)

7.9.7.1.337 pellet_geometry

Structure describing the geometry of the pellet path. Time-dependent.

member	type	description

member	type	description
pivot_point	rzphi0D (7.9.7.1.385)	Coordinates of the pivot point for pellet trajectory. Time-dependent.
second_point	rzphi0D (7.9.7.1.385)	Coordinates of the second point for pellet trajectory. Time-dependent.
velocity	float (7.9.7.1.2)	Starting velocity of the pellet [m/s]. Scalar. Time-dependent.
angles	pellet_angles (7.9.7.1.334)	Angles of the pellet trajectory. Time-dependent.

Type of: pellet:geometry (3880)

7.9.7.1.338 pellet_impurity

Contributions to impurity array of structures (NIMP). Time-dependent

member	type	description
delta_nz	matflt_type (7.9.7.1.15)	Instant change of Nz profile (per charge state) due to pellet ablation [m^-3], array (NRHO, NZIMP). Time-dependent.

Type of: pellet_deposition:impurity (3882)

7.9.7.1.339 pellet_pathprofiles

Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.

member	type	description
distance	vecflt_type (7.9.7.1.18)	Coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_pol	vecflt_type (7.9.7.1.18)	Poloidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
velocity	vecflt_type (7.9.7.1.18)	Pellet velocity along the pellet trajectory [m/s], array (NPATH). Time-dependent.
ne	vecflt_type (7.9.7.1.18)	Electron density along the pellet trajectory [m^-3], array (NPATH). Time-dependent.
te	vecflt_type (7.9.7.1.18)	Electron temperature along the pellet trajectory [eV], array (NPATH). Time-dependent.
abl_rate	vecflt_type (7.9.7.1.18)	Ablation rate along the pellet trajectory [part/s], array (NPATH). Time-dependent.
abl_particles	vecflt_type (7.9.7.1.18)	Number of ablated particles along the pellet trajectory [part], array (NPATH). Time-dependent.
delta_drift	vecflt_type (7.9.7.1.18)	Radial displacement due to ExB drifts along the pellet trajectory [m], array (NPATH). Time-dependent.
position	rzphi1D (7.9.7.1.386)	Coordinates of the pellet trajectory line, array (NPATH). Time-dependent.

Type of: pellet:pathprofiles (3880)

7.9.7.1.340 pellet_shape

Structure defining the shape of the pellet. Time-dependent.

member	type	description
type	identifier (7.9.7.1.256)	Identifier for the shape of the pellet: 1-spherical; 2-cylindrical; 3-rectangular; 4-generic. Time-dependent.
dimensions	vecflt_type (7.9.7.1.18)	Vector specifying the dimensions of the pellet following the order for predefined shapes. Spherical pellets: dimensions(1) is the radius [m] of the pellet; Cylindrical pellets: dimensions(1) is the radius [m] and dimensions(2) is the height [m] of the cylinder; Rectangular pellets: dimensions(1) is the height [m], dimensions(2) is the width [m] and dimensions(3) is the length [m]; Time-dependent.

Type of: pellet:shape (3880)

7.9.7.1.341 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.7.1.15)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.7.1.15)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (3705)

7.9.7.1.342 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.7.1.20)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.7.1.20)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.7.1.19)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.7.1.8)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (3605)

7.9.7.1.343 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.7.1.159)	Description of the coils
coilcurrent	exp1D (7.9.7.1.218)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.7.1.218)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)
p_cryo	float (7.9.7.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
p_nh	vecflt_type (7.9.7.1.18)	Nuclear heating on the poloidal field coils [W]; Time-dependent. Vector(ncoils)

Type of: pfsystems:pfcoils (3605)

7.9.7.1.344 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.7.1.20)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.7.1.15)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.7.1.15)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.7.1.345)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (3706)

7.9.7.1.345 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.7.1.16)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.7.1.16)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.7.1.384)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.7.1.7)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (3891)

7.9.7.1.346 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.7.1.19)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.7.1.19)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.7.1.383)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.7.1.15)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (3894)

7.9.7.1.347 pfpassive

Passive axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of coil. Array of strings (nelements)
area	vecflt_type (7.9.7.1.18)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.7.1.18)	Passive element resistance [Ohm]; Vector (nelements)
eta	vecflt_type (7.9.7.1.18)	Passive element resistivity [Ohm.m]; Vector (nelements)
current	pfpassive_current (7.9.7.1.348)	Current induced in passive structures.
pfpageometry	pfpageometry (7.9.7.1.346)	Geometry of the passive elements

Type of: pfsystems:pfpassive (3605)

7.9.7.1.348 pfpassive_current

Current induced in passive structures.

member	type	description
toroidal	exp1D (7.9.7.1.218)	Toroidal current induced in passive structures [A]. Vector (nelements); Time-dependent
poloidal	exp1D (7.9.7.1.218)	Poloidal current induced in passive structures [A]. Vector (nelements); Time-dependent

Type of: pfpassive:current (3894)

7.9.7.1.349 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.7.1.160)	Description of the power supplies
voltage	exp1D (7.9.7.1.218)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.7.1.218)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (3605)

7.9.7.1.350 phaseellipse

Phase ellipse characteristics

member	type	description
invcurvrad	vecflt_type (7.9.7.1.18)	Inverse curvature radii for the phase ellipse [m-1], positive/negative for divergent/convergent beams, Vector (2). Time-dependent
angle	float (7.9.7.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (3925)

7.9.7.1.351 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.7.1.380)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.7.1.18)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].
radialhwidth	vecflt_type (7.9.7.1.18)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (4022)

7.9.7.1.352 plasmaComplexType

Description of incoming plasma

member	type	description
species	vecint_type (7.9.7.1.19)	Definition of plasma species. Index into wall/compositions/edgespecies. Integer vector (number of plasma species).
flux	matflt_type (7.9.7.1.15)	Plasma particle flux density from/to plasma facing wall surfaces [1/(m^2 s)]. Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)
b	matflt_type (7.9.7.1.15)	Magnetic field vector at the surface [T]; Time-dependent; Float matrix (number of space dimensions, number of discretization elements in the subgrid). If two-dimensional: unit vectors with first coordinate perpendicular to the wall facing towards the plasma, second coordinate parallel to the surface (in the direction of the surface discretization), third dimension is zero. If three-dimensional: vector is relative to basis vectors stored in wall/wall3d/grid/basis with basis index as given in wall/wall3d/basis_index.
energy	matflt_type (7.9.7.1.15)	Total energy flux density of incoming particles of given species [W/m^2]; Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)

Type of: wall2d:plasma (4049) I wall3d:plasma (4051)

7.9.7.1.353 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.7.1.3)	Number of points in the distance grid. Integer
distance	vecflt_type (7.9.7.1.18)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.7.1.18)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (3624)

7.9.7.1.354 pol_decomp

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
mpol	vecint_type (7.9.7.1.19)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_plus_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)

member	type	description
e_binorm_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of normal wave magnetic field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.7.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array3dflt_type (7.9.7.1.7)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.7.1.7)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.7.1.7)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
k_perp	array3dflt_type (7.9.7.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (3777)

7.9.7.1.355 polarimetry

This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.

member	type	description
setup	msediag_setup_polarimetry (7.9.7.1.303)	diagnostic setup information
measure	exp1D (7.9.7.1.218)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)

Type of: msediag:polarimetry (3599)

7.9.7.1.356 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.7.1.18)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_p_im	vecflt_type (7.9.7.1.18)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.7.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.7.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.7.1.18)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.7.1.18)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (3634)

7.9.7.1.357 power_conv_component

Description of the components of the power conversion system. Array of structure (ncomp).

member	type	description
name	string (7.9.7.1.4)	name of the component
temp_in	float (7.9.7.1.2)	temperature of the input [K];Scalar
temp_out	float (7.9.7.1.2)	temperature of the output [K];Scalar
press_in	float (7.9.7.1.2)	Pressure of the input[Pa];Scalar
press_out	float (7.9.7.1.2)	Pressure of the output [Pa];Scalar

member	type	description
power	float (7.9.7.1.2)	electric consumption by the component; (consumption power)[W];Scalar
flow	float (7.9.7.1.2)	Flow through the component [kg/s]; Scalar

Type of: circuits:component (3642)

7.9.7.1.358 power_exchange

member	type	description
dep_pow	vecflt_type (7.9.7.1.18)	Power deposited in each bb module (the reference outboard module if only value is given) [W]; Vector(nmodules)
dep_fw	float (7.9.7.1.2)	Power deposited in the first wall (heat flux + neutrons) [W]; Scalar
dep_sg	float (7.9.7.1.2)	Power deposited in the stiffening grid (neutrons) [W]; Scalar
dep_cp	float (7.9.7.1.2)	Power deposited in the cooling plates (neutrons) [W]; Scalar
dep_lp	float (7.9.7.1.2)	Power deposited in the Pb-15.7Li (neutrons) [W]; Scalar
dep_man	float (7.9.7.1.2)	Power deposited in the manifolds (neutrons) [W]; Scalar
dep_pl	float (7.9.7.1.2)	Power deposited in the protect layer (made of tungsten) (neutrons) [W]; Scalar
rec_fw	float (7.9.7.1.2)	Power recovered from He in first wall channels [W]; Scalar
rec_sg	float (7.9.7.1.2)	Power recovered from He in stiffening grid channels [W]; Scalar
rec_cp	float (7.9.7.1.2)	Power recovered from He in cooling plates channels [W]; Scalar
pow_dens_fw	float (7.9.7.1.2)	Peak energy depostion in first wall [W.m^-3]; Scalar
pow_dens_bz	float (7.9.7.1.2)	Peak energy depostion in breeding zone [W.m^-3]; Scalar
pow_dens_bz10	float (7.9.7.1.2)	Peak energy depostion in breeding zone (first ten centimers) [W.m^-3]; Scalar
pow_dens_bp	float (7.9.7.1.2)	Peak energy depostion in back plate [W.m^-3]; Scalar
pow_dens_man	float (7.9.7.1.2)	Peak energy depostion in manifold [W.m^-3]; Scalar
pow_dens_sh	float (7.9.7.1.2)	Peak energy depostion in shield [W.m^-3]; Scalar

Type of: mode_neutr:pow_exchange (3839)

7.9.7.1.359 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.7.1.18)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent
phi_par	vecflt_type (7.9.7.1.18)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.7.1.18)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.7.1.15)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (3634)

7.9.7.1.360 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.7.1.144)	Electron pressure [Pa]; Time-dependent;
dpedt	coreprofile (7.9.7.1.144)	Time derivative of the electron pressure [Pa/s]; Time-dependent;
pi	coreprofion (7.9.7.1.145)	Ion pressure [Pa]; Time-dependent;
pi_tot	coreprofile (7.9.7.1.144)	Total ion pressure (sum of the species) [Pa]; Time-dependent;
dpi_totdt	coreprofile (7.9.7.1.144)	Time derivative of the total ion pressure [Pa/s]; Time-dependent;
pr_th	coreprofile (7.9.7.1.144)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.7.1.144)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.7.1.144)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.7.1.144)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.7.1.144)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;

member	type	description
jphi	coreprofile (7.9.7.1.144)	total toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent;
joh	coreprofile (7.9.7.1.144)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.7.1.144)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.7.1.144)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	sourceel (7.9.7.1.428)	ohmic heating [W/m^3]; Time-dependent;
qei	coreprofile (7.9.7.1.144)	Collisional heat transfer from electrons to ions (equipartition term) [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.7.1.144)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.7.1.144)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.7.1.144)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.7.1.144)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.7.1.145)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.7.1.145)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.7.1.145)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
vpol	coreprofion (7.9.7.1.145)	Neoclassical poloidal rotation of each ion species [m/s]. Time-dependent.
zeff	coreprofile (7.9.7.1.144)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.7.1.144)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dvprimedt	coreprofile (7.9.7.1.144)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (3579)

7.9.7.1.361 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.7.1.18)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.7.1.18)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.7.1.18)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.7.1.18)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.7.1.18)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.7.1.18)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.7.1.18)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.7.1.18)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
shear	vecflt_type (7.9.7.1.18)	Magnetic shear, defined as rho_tor/q*dq/drho_tor [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.7.1.18)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.7.1.18)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.7.1.18)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.7.1.18)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.7.1.18)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.7.1.18)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.7.1.18)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.7.1.18)	Upper triangularity profile; Time-dependent; Vector (npsi)
tria_lower	vecflt_type (7.9.7.1.18)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.7.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
dvdrho	vecflt_type (7.9.7.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to rho_tor, i.e. dV/drho_tor [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.7.1.18)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)

member	type	description
surface	vecflt_type (7.9.7.1.18)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.7.1.18)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.7.1.18)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.7.1.18)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.7.1.18)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.7.1.18)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.7.1.18)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.7.1.18)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.7.1.18)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.7.1.18)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.7.1.18)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.7.1.18)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.7.1.18)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.7.1.18)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.7.1.18)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.7.1.18)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.7.1.18)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.7.1.18)	Poloidal flow function phi_flow = rho*v_pol/B_pol[kg/(V.s^2)] where rho is mass density; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.7.1.18)	Flux function in the closure equation p=S(psi).rho^(gamma); Entropy (gamma=5/3) or Temperature (gamma=1); Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.7.1.18)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)
rho_mass	vecflt_type (7.9.7.1.18)	Mass density [kg/m^3]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (3588)

7.9.7.1.362 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Signal value [Wb]; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.7.1.18)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.7.1.18)	Second order radial derivative (d2value/drho_tor2) [Wb.m^-2]; Time-dependent; Vector (nrho)
ddt_rhotorn	vecflt_type (7.9.7.1.18)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
ddt_phi	vecflt_type (7.9.7.1.18)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.7.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.7.1.88)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.7.1.263)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.7.1.144)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: coreprof:psi (3579)

7.9.7.1.363 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.7.1.4)	Storage method for this data
putaccess	string (7.9.7.1.4)	Instructions to access the data using this method
putlocation	string (7.9.7.1.4)	Name of this data under this method
rights	string (7.9.7.1.4)	Access rights to this data

Type of: datainfo:putinfo (3702)

7.9.7.1.364 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.7.1.18)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.7.1.380)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.7.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.7.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.7.1.18)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.7.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.7.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.7.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (3757)

7.9.7.1.365 reacprodType

Characterizes a reactant or product in an AMNS reaction.

member	type	description
label	string (7.9.7.1.4)	String identifier for reaction participant (e.g. "D", "e", "W", "CD4", "photon", "n").
constituents(:)	amns_constituentType (7.9.7.1.73)	Array specifying the constituents of this reactant/product; For an atom or ion the array will be of length 1, for a molecule there will be more than one element in the array; Vector (nconst)
role	identifier (7.9.7.1.256)	Identifier for the role of this paricipant in the reaction. For surface reactions distinguish between projectile and wall.
amn	float (7.9.7.1.2)	Mass of the participant (amu).
relative	integer (7.9.7.1.3)	This is a flag indicating that charges are absolute (if set to 0), relative (if 1) or irrelevant (-1); relative would be used to categorize the ionization reactions from i to i+1 for all charge states; in the case of bundles, the +1 relative indicates the next bundle.
za	float (7.9.7.1.2)	Charge of the participant. Not set if not important (e.g. for a nuclear reaction). For the case where we are describing a set of reactions for different charge states, then this is the relative charge.
multiplicity	float (7.9.7.1.2)	Multiplicity in the reaction
metastable	vecint_type (7.9.7.1.19)	An array identifying the metastable; if zero-length, then not a metastable; if of length 1, then the value indicates the electronic level for the metastable (mostly used for atoms/ions); if of length 2, then the 1st would indicate the electronic level and the second the vibrational level for the metastable (mostly used for molecules and molecular ions); if of length 3, then the 1st would indicate the electronic level, the second the vibrational level and the third the rotational level for the metastable (mostly used for molecules and molecular ions)
metastable_label	string (7.9.7.1.4)	Label identifying in text form the metastable

Type of: amns_processType:product (3621) I amns_processType:reactant (3621)

7.9.7.1.366 react

In the reactor region

member	type	description
he_fr	float (7.9.7.1.2)	Coolant mass flow rate in the whole reactor [Kg/s]; Scalar
lp_fr	float (7.9.7.1.2)	Pb-15.7Li mass flow rate in the whole reactor [Kg/s]; Scalar
he_dp	float (7.9.7.1.2)	Coolant pressure drops in the reactor (compressing pipelines) [Pa]; Scalar
lipb_dp	float (7.9.7.1.2)	Pb-15.7Li pressure drops in the reactor [Pa]; Scalar

Type of: hcll_bb:react (3800)

7.9.7.1.367 rectanglexyz

Rectangle defined by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point can be calculated from the other three as point00=point01+poin10-point11, thus the rectangle is defined by the triplet (point01, point11, point10). The normal vector of this rectangle is defined to be in the direction (point01-point11)x(point10-point11).

member	type	description
point01	xyz0D (7.9.7.1.530)	Point 01 on the rectangle
point11	xyz0D (7.9.7.1.530)	Point 11 on the rectangle
point10	xyz0D (7.9.7.1.530)	Point 10 on the rectangle

Type of: nbi_nbi_unit_wall_surface:rectangle (3853)

7.9.7.1.368 recycling_neutrals

Recycling coefficients

member	type	description
particles	vecflt_type (7.9.7.1.18)	Particle recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut,). Time-dependent.
energy	vecflt_type (7.9.7.1.18)	Energy recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:recycling (3646)

7.9.7.1.369 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.7.1.2)	Data value; Real
source	string (7.9.7.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.7.1.2)	Time (exact time slice used from the time array of the source signal); Real

7.9.7.1.370 refl_receive

Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.

member	type	description
name	string (7.9.7.1.4)	Signal name
raw_signal	t_series_real (7.9.7.1.440)	Raw antenna signal, possibly code dependent, may not always be available; usually without mixing of local oscillator; Time series; Vector (ntime_raw); Time-dependent
io_signal	t_series_real (7.9.7.1.440)	Local oscillator signal, for mixing with raw signal; Time series; Vector (ntime_raw); Time-dependent
iq_receiver	t_series_cplx (7.9.7.1.439)	I and Q signals from the receiver; already processed by code (or hardware); Time series; Vector (ntime_receiver); Time-dependent
antenna_ind	integer (7.9.7.1.3)	Index of the receiving antenna in the antennas vector, starting at 0

Type of: reflectomet:refl_receive (3608)

7.9.7.1.371 reflectometry_antennas

Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array.

member	type	description
name	string (7.9.7.1.4)	Antenna name
type	identifier (7.9.7.1.256)	Antenna type: 1: sending, 2: receiving, 3: both
origin	origin (7.9.7.1.330)	NO DOCS

member	type	description
radfield	reflectometry_radfield (7.9.7.1.372)	Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent; Time-dependent
geometry	float (7.9.7.1.2)	To be defined: annotation and type
launchsignal	launchsignal (7.9.7.1.272)	NO DOCS

Type of: reflectomet:antennas (3608)

7.9.7.1.372 reflectometry_radfield

Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent

member	type	description
type	identifier (7.9.7.1.256)	Identify type of source: 0: Gaussian, 1: waveguide mode, 2: arbitrary E field; corresponding substructure must be filled to provide the information.
position	vecflt_type (7.9.7.1.18)	Center position in local x-y-z coordinate system [m]; Vector(3)
gaussian(:)	reflectometry_radfield_gaussian (7.9.7.1.373)	Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only. Time-dependent
efield(:)	reflectometry_radifield_efield (7.9.7.1.374)	complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

Type of: reflectometry_antennas:radfield (3918)

7.9.7.1.373 reflectometry_radfield_gaussian

Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only; Time-dependent

member	type	description
aperture	simp_apert (7.9.7.1.421)	Physical limits of the Gaussian wave field; any rotation here is at odds with the Gaussian geometry
waistsize	vecflt_type (7.9.7.1.18)	Beam waist size [m]; Vector(2)
waistzpos	vecflt_type (7.9.7.1.18)	Beam waist position along local z axis [m]; Vector(2)
tiltangle	vecflt_type (7.9.7.1.18)	tilt angle relative to local z axis [rad]; Vector(2)
polar_angle	vecflt_type (7.9.7.1.18)	Polarisation angle around local z [rad]; 0 means along the local x axis, i.e. vertical if all angles in the origin field are 0; Scalar
frequency	float (7.9.7.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:gaussian (3919)

7.9.7.1.374 reflectometry_radifield_efield

complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

member	type	description
grid2d	reggrid (7.9.7.1.375)	Coordinate values for the grid for the electric field arrays. Vector(ndim1) and Vector(ndim2); Time-dependent
e1	matcplx_type (7.9.7.1.14)	Electric field component along local x direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
e2	matcplx_type (7.9.7.1.14)	Electric field component along local y direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
frequency	float (7.9.7.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:efield (3919)

7.9.7.1.375 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.7.1.18)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.7.1.18)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (3669) I reflectometry_radifield_efield:grid2d (3921)

7.9.7.1.376 rfameasure

Measured values

member	type	description
ti	exp1D (7.9.7.1.218)	Ion temperature [eV]. Vector (nchannels)

Type of: rfadiag:measure (3609)

7.9.7.1.377 rfasetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.7.1.387)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: rfadiag:setup (3609)

7.9.7.1.378 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.7.1.435)	Spot characteristics
phaseellipse	phaseellipse (7.9.7.1.350)	Phase ellipse characteristics

Type of: antenna_ec:beam (3622) I antenna_lh:beam (3624)

7.9.7.1.379 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.7.1.2)	Major radius [m]
z	float (7.9.7.1.2)	Altitude [m]

Type of: circularcoil:centre (3643) I current:rz_reference (3698) I dist_geometry_0d:mag_axis (3715) I distsource_global_param: (3735) I eqgeometry:active_limit (3758) I eqgeometry:geom_axis (3758) I eqgeometry:left_low_st (3758) I eqgeometry:left_up_st (3758) I eqgeometry:right_low_st (3758) I eqgeometry:right_up_st (3758) I globalparam:geom_axis (3797) I mag_axis:position (3826) I waves_global_param:mag_axis (4066)

7.9.7.1.380 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]
z	vecflt_type (7.9.7.1.18)	Altitude [m]

Type of: flush:position (3771) I isoflux:position (3809) I limiter_unit:position (3820) I mhd_ideal_wall2d:position (3831) I mhd_res_wall2d:position (3834) I omnigen_surf:rz (3871) I planecoil:coordinates (3898) I q:position

(3911) I setup_bprobe:position (3962) I solcurdiag_sol_current_setup:position (3970) I straps:coord_strap (3984) I wall_blocks_unit:position (4053) I wall_vessel_annular:inside (4060) I wall_vessel_annular:outside (4060) I xpts:position (4076)

7.9.7.1.381 rz1D_npoints

Structure for list of R,Z positions (1D), with mention of the number of points relevant for a given time slice

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.7.1.18)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.7.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

7.9.7.1.382 rz1Dexp

Structure for list of R,Z positions (1D), with R and Z time-depent and experimental.

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]. Vector(npoints). Time-dependent
z	vecflt_type (7.9.7.1.18)	Altitude [m]. Vector(npoints). Time-dependent

Type of: eqgeometry:boundary (3758) I eqgeometry:xpts (3758)

7.9.7.1.383 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.7.1.15)	Major radius [m]
z	matflt_type (7.9.7.1.15)	Altitude [m]

Type of: coord_sys:position (3669) I geom_iron:rzcoordinate (3795) I pfpageometry:rzcoordinate (3893)

7.9.7.1.384 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.7.1.7)	Major radius [m]
z	array3dflt_type (7.9.7.1.7)	Altitude [m]

Type of: pfgeometry:rzcoordinate (3892)

7.9.7.1.385 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.7.1.2)	Major radius [m]
z	float (7.9.7.1.2)	Altitude [m]
phi	float (7.9.7.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (3622) I antenna_lh:position (3624) I beamletgroup:position (3632) I fusiondiag_voxels:centre (3793) I fusiondiag_voxels:direction (3793) I msediag_setup:pivot_point (3849) I msediag_setup:second_point (3849) I origin:refpos (3877) I pellet_geometry:pivot_point (3884) I pellet_geometry:second_point (3884)

7.9.7.1.386 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]
z	vecflt_type (7.9.7.1.18)	Altitude [m]
phi	vecflt_type (7.9.7.1.18)	Toroidal angle [rad]

Type of: beamlets:position (3633) I edges:edge_rzphi (3752) I fusiondiag_colliunit_circ:centre (3782) I halpha_setup:pivot_point (3798) I halpha_setup:second_point (3798) I launchs:position (3595) I lithsetup:position (3824) I msediag_emiss_chord:setup (3844) I pellet_pathprofiles:position (3886) I setup_line:pivot_point (3964) I setup_line:second_point (3964) I setup_line:third_point (3964) I tssetup:position (4036)

7.9.7.1.387 rzphi1Dexp

Structure for list of R,Z,phi positions (1D) with experimental structure (value, abserror, relerror)

member	type	description
r	exp1D (7.9.7.1.218)	Major radius [m]
z	exp1D (7.9.7.1.218)	Altitude [m]
phi	exp1D (7.9.7.1.218)	Toroidal angle [rad]

Type of: cxsetup:position (3700) I ecemeasure:position (3742) I lang_derived:position (3811) I lang_measure:position (3812) I rfasetup:position (3924)

7.9.7.1.388 rzphi1Dexperimental

Structure for list of R,Z,phi positions (1D) with additional appinfo tags to have some nodes both in MD and DM

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius [m]
z	vecflt_type (7.9.7.1.18)	Altitude [m]
phi	vecflt_type (7.9.7.1.18)	Toroidal angle [rad]

Type of: setup_line_exp:pivot_point (3965) I setup_line_exp:second_point (3965) I setup_line_exp:third_point (3965)

7.9.7.1.389 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.7.1.15)	Major radius [m]
z	matflt_type (7.9.7.1.15)	Altitude [m]
phi	matflt_type (7.9.7.1.15)	Toroidal angle [rad]

Type of: fusiondiag_colliunit_poly:nodes (3783) I setup_floops:position (3963)

7.9.7.1.390 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.7.1.7)	Major radius [m]
z	array3dflt_type (7.9.7.1.7)	Altitude [m]
phi	array3dflt_type (7.9.7.1.7)	Toroidal angle [rad]

Type of: turbcoordsys:position (4038)

7.9.7.1.391 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.7.1.18)	Position : major radius [m]
z	vecflt_type (7.9.7.1.18)	Position : altitude [m]
phi	vecflt_type (7.9.7.1.18)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.7.1.18)	Width : major radius [m]
dz	vecflt_type (7.9.7.1.18)	Width : altitude [m]
dphi	vecflt_type (7.9.7.1.18)	Width : toroidal angle [rad]

Type of: msediag_setup_polarimetry:rzgamma (3850)

7.9.7.1.392 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.7.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.7.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.7.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.7.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.

Type of: sawteeth:diags (3610)

7.9.7.1.393 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
ne	vecflt_type (7.9.7.1.18)	Electron density [m^-3]. Time-dependent. Vector (nrho).
ni	matflt_type (7.9.7.1.15)	Ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
te	vecflt_type (7.9.7.1.18)	Electron temperature [eV]. Time-dependent. Vector (nrho).
ti	matflt_type (7.9.7.1.15)	Ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
psi	vecflt_type (7.9.7.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent. Vector (nrho).
phi	vecflt_type (7.9.7.1.18)	Toroidal flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.7.1.18)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
volume	vecflt_type (7.9.7.1.18)	Volume enclosed in the flux surface [m^3]. Required to ensure particle and energy conservation during reconnection process (ndV and (nT)dV are conserved). Time-dependent. Vector (nrho).
q	vecflt_type (7.9.7.1.18)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (3610)

7.9.7.1.394 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.7.1.411)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.7.1.411)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.7.1.411)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.7.1.411)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.7.1.411)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.7.1.411)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.7.1.411)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.7.1.411)	central safety factor value []. Time-dependent.
Rmag	scenario_ref (7.9.7.1.411)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.7.1.411)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.7.1.411)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (3611)

7.9.7.1.395 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.7.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.7.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.7.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.7.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.7.1.19)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.7.1.18)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.7.1.18)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.7.1.18)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.7.1.18)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (3611)

7.9.7.1.396 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.7.1.403)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.7.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.7.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.7.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.7.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.7.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.7.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.7.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.7.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.7.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.7.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.7.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.7.1.4)	chemical compostion of the divertor
coordinate	string (7.9.7.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.7.1.411)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.7.1.411)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.7.1.403)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.7.1.411)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.7.1.411)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.7.1.403)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.7.1.411)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.7.1.411)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.7.1.403)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.7.1.411)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.7.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.7.1.411)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.7.1.411)	LHCD frequency [Hz]. Time-dependent.
LH_npar	scenario_ref (7.9.7.1.411)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.7.1.411)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.7.1.411)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.7.1.411)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (3611)

7.9.7.1.397 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.7.1.411)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.7.1.411)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.7.1.411)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.7.1.411)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.7.1.411)	electron energy confinement time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.7.1.411)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.7.1.411)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.7.1.411)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.7.1.411)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (3611)

7.9.7.1.398 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.7.1.411)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.7.1.411)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.7.1.411)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.7.1.411)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.7.1.411)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.7.1.411)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.7.1.411)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.7.1.411)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.7.1.411)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.7.1.411)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.7.1.411)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.7.1.411)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.7.1.411)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.7.1.411)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.7.1.411)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (3611)

7.9.7.1.399 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.7.1.411)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.7.1.411)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.7.1.411)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.7.1.411)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.7.1.411)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.7.1.411)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.7.1.411)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.7.1.411)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.
q_edge	scenario_ref (7.9.7.1.411)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.7.1.411)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.7.1.411)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.7.1.411)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (3611)

7.9.7.1.400 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.7.1.411)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.7.1.411)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.7.1.411)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.7.1.411)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.7.1.411)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.7.1.411)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.7.1.411)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.7.1.411)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.7.1.411)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.7.1.411)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.7.1.411)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.7.1.411)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.7.1.411)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.7.1.411)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.7.1.411)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.7.1.411)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (3611)

7.9.7.1.401 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.7.1.411)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.7.1.411)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.7.1.411)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.7.1.411)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.7.1.411)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.7.1.411)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.7.1.411)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.7.1.411)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.7.1.411)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.7.1.411)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.7.1.411)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.7.1.411)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.7.1.411)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.7.1.411)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.7.1.411)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.7.1.411)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (3611)

7.9.7.1.402 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.7.1.411)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.7.1.411)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.7.1.411)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.7.1.411)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.7.1.411)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.7.1.411)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.7.1.411)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.

member	type	description
plh_th	scenario_ref (7.9.7.1.411)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.7.1.411)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.7.1.411)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.7.1.411)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.7.1.411)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.7.1.411)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.7.1.411)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.7.1.411)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.7.1.411)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.7.1.411)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.7.1.411)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.7.1.411)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.7.1.411)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.7.1.411)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.7.1.411)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.7.1.411)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.7.1.411)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.7.1.411)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.7.1.411)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.7.1.411)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.7.1.411)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.7.1.411)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.7.1.411)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.7.1.411)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.7.1.411)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.7.1.411)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.7.1.411)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.7.1.411)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.7.1.411)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.7.1.411)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.7.1.411)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (3611)

7.9.7.1.403 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.7.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.7.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (3943) I scenario_configuration:ecrh_harm (3943) I scenario_configuration:ecrh_mode (3943) I scenario_configuration:grad_b_drift (3943) I scenario_itb:itb_type (3951)

7.9.7.1.404 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.7.1.411)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.7.1.411)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.7.1.411)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.7.1.411)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.7.1.411)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.7.1.411)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.7.1.411)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.7.1.411)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.

member	type	description
h_itb	scenario_ref (7.9.7.1.411)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.7.1.411)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.7.1.411)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.7.1.403)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (3611)

7.9.7.1.405 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.7.1.411)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.7.1.411)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.7.1.411)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.7.1.411)	limiter/divertor ion density [m^-3]. Time-dependent.
q_peak_div	scenario_ref (7.9.7.1.411)	Peak power flux on limiter or divertor plate [W.m^-2]. Time-dependent.
q_peak_wall	scenario_ref (7.9.7.1.411)	Peak power flux on the wall [W.m^-2]. Time-dependent.
surf_temp	scenario_ref (7.9.7.1.411)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.7.1.411)	Total power on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.7.1.411)	radiative power in the divertor zone [W]. Time-dependent.
p_neut_div	scenario_ref (7.9.7.1.411)	Neutral pressure in the divertor zone [Pa]; Time-dependent.
p_wall	scenario_ref (7.9.7.1.411)	Total power on the wall [W]. Time-dependent.
wall_temp	scenario_ref (7.9.7.1.411)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.7.1.411)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.7.1.411)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.7.1.411)	flux pump out for each ion species [s^-1]. Time-dependent.
p_rad_fw	scenario_ref (7.9.7.1.411)	Radiated power on the first wall [W]; Time-dependent
p_cond_fw	scenario_ref (7.9.7.1.411)	Conducted/convected power on the first wall [W]; Time-dependent
div_wetted	scenario_ref (7.9.7.1.411)	Divertor wetted area [m^2]; Time-dependent
gas_puff	scenario_ref (7.9.7.1.411)	Gas puff (D/T) in the divertor (PFR) [Pa.m^3.s^-1]; Time-dependent
ar_concentr	scenario_ref (7.9.7.1.411)	Argon concentration in the divertor; Time-dependent
part_exhaust	scenario_ref (7.9.7.1.411)	Assuming a pumping speed [Pa.m^3.s^-1]; Time-dependent
f_inner	scenario_ref (7.9.7.1.411)	Fraction of power to the inner divertor; Time-dependent
f_outer	scenario_ref (7.9.7.1.411)	Fraction of power to the outer divertor; Time-dependent
f_pfr	scenario_ref (7.9.7.1.411)	Fraction of power flowing into the private flux region; Time-dependent
f_rad_fw	scenario_ref (7.9.7.1.411)	Fraction of the divertor radiated power deposited in the main chamber; Time-dependent
q_div	vecflt_type (7.9.7.1.18)	Heat flux on divertor plate [W/m^2]; Vector(theta). Time-dependent
p_cond_div	scenario_ref (7.9.7.1.411)	Conducted/convected power on divertor plate [W]; Time-dependent
pol_ext	float (7.9.7.1.2)	Poloidal extension of the divertor or outer major radius of the divertor region (and inner major radius) [rad]; Scalar
flux_exp	float (7.9.7.1.2)	Flux expansion at the divertor plate ((B_theta/B)midplane)/((B_theta/B)target); Scalar
tilt_angle	float (7.9.7.1.2)	Tilt angle between the field lines and the divertor plate in a poloidal plane [rad]; Scalar
n_div	float (7.9.7.1.2)	Number of divertor, assuming symmetric configuration; Scalar
div_dz	float (7.9.7.1.2)	Divertor extension in z direction from the x-point [m]; Scalar
div_dro	float (7.9.7.1.2)	Divertor extension in r outward direction from the x-point [m]; Scalar
div_dri	float (7.9.7.1.2)	Divertor extension in r intward direction from the x-point [m]; Scalar
p_nh_div	scenario_ref (7.9.7.1.411)	Total nuclear heating in divertor [W]. Time-dependent.

Type of: scenario:lim_div_wall (3611)

7.9.7.1.406 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.7.1.411)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.7.1.411)	line averaged effective charge. Time-dependent.

member	type	description
ne_zeff_line	scenario_ref (7.9.7.1.411)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.7.1.411)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (3611)

7.9.7.1.407 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.7.1.411)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.7.1.411)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.7.1.411)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.7.1.411)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.7.1.411)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.7.1.411)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (3611)

7.9.7.1.408 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.7.1.411)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.7.1.411)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.7.1.411)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.7.1.411)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.7.1.411)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.7.1.411)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.7.1.411)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.7.1.411)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.7.1.411)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.7.1.411)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.7.1.411)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.7.1.411)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (3611)

7.9.7.1.409 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.7.1.411)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.7.1.411)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.7.1.411)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.7.1.411)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.7.1.411)	pedestal poloidal flux [Wb]. Time-dependent.
phi_ped	scenario_ref (7.9.7.1.411)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.7.1.411)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.7.1.411)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.7.1.411)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.7.1.411)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (3611)

7.9.7.1.410 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.7.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (3611)

7.9.7.1.411 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.7.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.7.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (3941) I scenario_centre:Zmag (3941) I scenario_centre:ne0 (3941) I scenario_centre:ni0 (3941) I scenario_centre:phi0 (3941) I scenario_centre:psi0 (3941) I scenario_centre:q0 (3941) I scenario_centre:shift0 (3941) I scenario_centre:te0 (3941) I scenario_centre:ti0 (3941) I scenario_centre:vtor_0 (3941) I scenario_configuration:LH_freq (3943) I scenario_configuration:LH_npar (3943) I scenario_configuration:ecrh_freq (3943) I scenario_configuration:ecrh_loc (3943) I scenario_configuration:ecrh_pol_ang (3943) I scenario_configuration:ecrh_tor_ang (3943) I scenario_configuration:enb (3943) I scenario_configuration:icrh_freq (3943) I scenario_configuration:icrh_phase (3943) I scenario_configuration:pellet_ang (3943) I scenario_configuration:pellet_nba (3943) I scenario_configuration:pellet_v (3943) I scenario_configuration:r_nbi (3943) I scenario_confinement:tau_cur_diff (3944) I scenario_confinement:tau_e (3944) I scenario_confinement:tau_e_ee (3944) I scenario_confinement:tau_e_ei (3944) I scenario_confinement:tau_e_ii (3944) I scenario_confinement:tau_h_sc (3944) I scenario_confinement:tau_he (3944) I scenario_confinement:tau_i_rol (3944) I scenario_confinement:tau_l_sc (3944) I scenario_currents:RR (3945) I scenario_currents:i_align (3945) I scenario_currents:i_boot (3945) I scenario_currents:i_cd_tot (3945) I scenario_currents:i_eccd (3945) I scenario_currents:i_fast_ion (3945) I scenario_currents:i_fwcd (3945) I scenario_currents:i_lhcd (3945) I scenario_currents:i_nbicd (3945) I scenario_currents:i_ni_tot (3945) I scenario_currents:i_ohm (3945) I scenario_currents:i_par (3945) I scenario_currents:i_runaway (3945) I scenario_currents:v_loop (3945) I scenario_currents:v_meas (3945) I scenario_edge:drho_edge_dt (3946) I scenario_edge:ne_edge (3946) I scenario_edge:neutral_flux (3946) I scenario_edge:ni_edge (3946) I scenario_edge:phi_edge (3946) I scenario_edge:phi_plasma (3946) I scenario_edge:psi_edge (3946) I scenario_edge:q_edge (3946) I scenario_edge:rho_edge (3946) I scenario_edge:te_edge (3946) I scenario_edge:ti_edge (3946) I scenario_edge:vtor_edge (3946) I scenario_energy:dwbpol_dt (3947) I scenario_energy:dwbtorpla_dt (3947) I scenario_energy:dwdia_dt (3947) I scenario_energy:dwth_dt (3947) I scenario_energy:dwtot_dt (3947) I scenario_energy:esup_alpha (3947) I scenario_energy:esup_icrhper (3947) I scenario_energy:esup_icrhtot (3947) I scenario_energy:esup_lhcd (3947) I scenario_energy:esup_nbiperp (3947) I scenario_energy:esup_nbitot (3947) I scenario_energy:w_b_pol (3947) I scenario_energy:w_b_tor_pla (3947) I scenario_energy:w_dia (3947) I scenario_energy:w_th (3947) I scenario_energy:w_tot (3947) I scenario_global:area_ext (3948) I scenario_global:area_pol (3948) I scenario_global:beta_n_th (3948) I scenario_global:beta_normal (3948) I scenario_global:beta_pol (3948) I scenario_global:beta_pol_th (3948) I scenario_global:beta_tor (3948) I scenario_global:beta_tor_th (3948) I scenario_global:dip_dt (3948) I scenario_global:disruption (3948) I scenario_global:ip (3948) I scenario_global:len_sepa (3948) I scenario_global:li (3948) I scenario_global:mode_h (3948) I scenario_global:s_alpha (3948) I scenario_global:volume (3948) I scenario_heat_power:p_l2h_sc (3949) I scenario_heat_power:p_l2h_thr (3949) I scenario_heat_power:p_nbi_icrh (3949) I scenario_heat_power:p_w (3949) I scenario_heat_power:p_wth (3949) I scenario_heat_power:padd_tot (3949) I scenario_heat_power:pbrem (3949) I scenario_heat_power:pcyclo (3949) I scenario_heat_power:pdd_fus (3949) I scenario_heat_power:pecrh (3949) I scenario_heat_power:pecrh_th (3949) I scenario_heat_power:pei (3949) I scenario_heat_power:pel_fus (3949) I scenario_heat_power:pel_icrh (3949) I scenario_heat_power:pel_nbi (3949) I scenario_heat_power:pel_tot (3949) I scenario_heat_power:pfus_dt (3949) I scenario_heat_power:pfus_nbi (3949) I scenario_heat_power:pfus_th (3949) I scenario_heat_power:picrh (3949) I scenario_heat_power:picrh_th (3949) I scenario_heat_power:pion_fus (3949) I scenario_heat_power:pion_icrh (3949) I scenario_heat_power:pion_nbi (3949) I scenario_heat_power:pion_tot (3949) I scenario_heat_power:pioniz (3949) I scenario_heat_power:plh (3949) I scenario_heat_power:plh_th (3949) I scenario_heat_power:ploss (3949) I scenario_heat_power:ploss_fus (3949) I scenario_heat_power:ploss_icrh (3949) I scenario_heat_power:ploss_nbi (3949) I scenario_heat_power:pnbi (3949) I scenario_heat_power:pnbi_co_cur (3949) I scenario_heat_power:pnbi_counter (3949) I scenario_heat_power:pnbi_th (3949) I scenario_heat_power:pohmic (3949) I scenario_heat_power:prad (3949) I scenario_itb:h_itb (3951) I scenario_itb:ne_itb (3951) I scenario_itb:ni_itb (3951) I scenario_itb:phi_itb (3951) I scenario_itb:psi_itb (3951) I scenario_itb:q_min (3951) I scenario_itb:rho_itb (3951) I scenario_itb:te_itb (3951) I scenario_itb:ti_itb (3951) I scenario_itb:vtor_itb (3951) I scenario_itb:width_itb (3951) I scenario_lim_div_wall:ar_concer (3952) I scenario_lim_div_wall:detach_state (3952) I scenario_lim_div_wall:div_wetted (3952) I scenario_lim_div_wall:f_inner

(3952) I scenario_lim_div_wall:f_outer (3952) I scenario_lim_div_wall:f_pfr (3952) I scenario_lim_div_wall:f_rad_fw (3952) I scenario_lim_div_wall:gas_puff (3952) I scenario_lim_div_wall:ne_lim_div (3952) I scenario_lim_div_wall:ni_lim_div (3952) I scenario_lim_div_wall:p_cond_div (3952) I scenario_lim_div_wall:p_cond_fw (3952) I scenario_lim_div_wall:p_lim_div (3952) I scenario_lim_div_wall:p_neut_div (3952) I scenario_lim_div_wall:p_nh_div (3952) I scenario_lim_div_wall:p_rad_div (3952) I scenario_lim_div_wall:p_rad_fw (3952) I scenario_lim_div_wall:p_wall (3952) I scenario_lim_div_wall:part_exhaust (3952) I scenario_lim_div_wall:pump_flux (3952) I scenario_lim_div_wall:q_peak_div (3952) I scenario_lim_div_wall:q_peak_wa (3952) I scenario_lim_div_wall:surf_temp (3952) I scenario_lim_div_wall:te_lim_div (3952) I scenario_lim_div_wall:ti_lim_div (3952) I scenario_lim_div_wall:wall_state (3952) I scenario_lim_div_wall:wall_temp (3952) I scenario_line_ave:dne_line_dt (3953) I scenario_line_ave:ne_line (3953) I scenario_line_ave:ne_zeff_line (3953) I scenario_line_ave:zeff_line (3953) I scenario_neutron:ndd_nbi_nbi (3954) I scenario_neutron:ndd_nbi_th (3954) I scenario_neutron:ndd_th (3954) I scenario_neutron:ndd_tot (3954) I scenario_neutron:ndt_th (3954) I scenario_neutron:ndt_tot (3954) I scenario_ninety_five:elon (3955) I scenario_ninety_five:ne_95 (3955) I scenario_ninety_five:ni_95 (3955) I scenario_ninety_five:phi_95 (3955) I scenario_ninety_five:q_95 (3955) I scenario_ninety_five:rho_95 (3955) I scenario_ninety_five:te_95 (3955) I scenario_ninety_five:ti_95 (3955) I scenario_ninety_five:tria_95 (3955) I scenario_ninety_five:tria_lo_95 (3955) I scenario_ninety_five:tria_up_95 (3955) I scenario_ninety_five:vtor_95 (3955) I scenario_pedestal:ne_ped (3956) I scenario_pedestal:ni_ped (3956) I scenario_pedestal:phi_ped (3956) I scenario_pedestal:pressure_ped (3956) I scenario_pedestal:psi_ped (3956) I scenario_pedestal:q_ped (3956) I scenario_pedestal:rho_ped (3956) I scenario_pedestal:te_ped (3956) I scenario_pedestal:ti_ped (3956) I scenario_pedestal:vtor_ped (3956) I scenario_references:bvac_r (3959) I scenario_references:enhancement (3959) I scenario_references:gas_puff (3959) I scenario_references:ip (3959) I scenario_references:isotopic (3959) I scenario_references:nbar (3959) I scenario_references:nbi_td_ratio (3959) I scenario_references:pecrh (3959) I scenario_references:picrh (3959) I scenario_references:plh (3959) I scenario_references:pnbi (3959) I scenario_references:pol_flux (3959) I scenario_references:xecrh (3959) I scenario_references:zeffl (3959) I scenario_sol:gas_puff (3960) I scenario_sol:l_ne_sol (3960) I scenario_sol:l_ni_sol (3960) I scenario_sol:l_qe_sol (3960) I scenario_sol:l_qi_sol (3960) I scenario_sol:l_te_sol (3960) I scenario_sol:l_ti_sol (3960) I scenario_sol:p_rad_sol (3960) I scenario_vol_ave:dne_ave_dt (3961) I scenario_vol_ave:meff_ave (3961) I scenario_vol_ave:ne_ave (3961) I scenario_vol_ave:ni_ave (3961) I scenario_vol_ave:omega_ave (3961) I scenario_vol_ave:pellet_flux (3961) I scenario_vol_ave:te_ave (3961) I scenario_vol_ave:ti_ave (3961) I scenario_vol_ave:ti_o_te_ave (3961) I scenario_vol_ave:zeff_ave (3961)

7.9.7.1.412 scenario_references

References

member	type	description
plh	scenario_ref (7.9.7.1.411)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.7.1.411)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.7.1.411)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.7.1.411)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.7.1.411)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.7.1.411)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.7.1.411)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.7.1.411)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.7.1.411)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.7.1.411)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.7.1.411)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.7.1.411)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.7.1.411)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.7.1.411)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (3611)

7.9.7.1.413 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.7.1.411)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.7.1.411)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.7.1.411)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.7.1.411)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.7.1.411)	electron heat flux radial decay length [m]. Time-dependent.

member	type	description
l_qi_sol	scenario_ref (7.9.7.1.411)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.7.1.411)	radiative power of the SOL [W]. Time-dependent.
p_neut	float (7.9.7.1.2)	Neutral pressure of the SOL [Pa]; Scalar
gas_puff	scenario_ref (7.9.7.1.411)	gas puff flux for each ion species [s^-1]. Time-dependent.
delta_r_in	float (7.9.7.1.2)	Inner gap between the plasma and the first wall [m]; Scalar
delta_r_out	float (7.9.7.1.2)	Outer gap between the plasma and the first wall [m]; Scalar
r_in	float (7.9.7.1.2)	Inner radius of the first wall [m]; Scalar
r_out	float (7.9.7.1.2)	Outer radius of the first wall [m]; Scalar
sol_width	float (7.9.7.1.2)	Width of the SOL (the heat flux is assumed to fall off exponentially in the SOL according to the width parameter) [m]; Scalar

Type of: scenario:sol (3611)

7.9.7.1.414 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.7.1.411)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.7.1.411)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.7.1.411)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.7.1.411)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.7.1.411)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.7.1.411)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.7.1.411)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.7.1.411)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.7.1.411)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.7.1.18)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.7.1.411)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (3611)

7.9.7.1.415 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.7.1.20)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.7.1.380)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.7.1.18)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.7.1.18)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.7.1.18)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.7.1.18)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.7.1.19)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (3640)

7.9.7.1.416 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.7.1.20)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.7.1.20)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.7.1.389)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.7.1.19)	Number of points describing each loop in the ”position” matrices. Vector (nloops)

Type of: flux_loops:setup_floops (3772)

7.9.7.1.417 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.7.1.386)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.7.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.7.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.7.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.7.1.386)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.7.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.7.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.7.1.386)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.7.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: fusiondiag_colli_circ:setup_line (3779) I fusiondiag_colli_poly:setup_line (3780) I lineintegraldiag:setup_line (3822)

7.9.7.1.418 setup_line_exp

Geometric description of the lines of sight for line integral diagnostic with additional appinfo tags to have some nodes both in MD and DM

member	type	description
pivot_point	rzphi1Dexperimental (7.9.7.1.388)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.7.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.7.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.7.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1Dexperimental (7.9.7.1.388)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.7.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.7.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1Dexperimental (7.9.7.1.388)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.7.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: ecesetup:los (3743)

7.9.7.1.419 shield

Shield

member	type	description
inboard	shield_specs (7.9.7.1.420)	Inboard
outboard	shield_specs (7.9.7.1.420)	Outboard

Type of: bb_shield:shield (3573)

7.9.7.1.420 shield_specs

Inboard

member	type	description
nmat	integer (7.9.7.1.3)	Number of materials; Scalar
composition	vecflt_type (7.9.7.1.18)	Inboard or outboard shield radial build the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector(nmat).
r1	float (7.9.7.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
r2	float (7.9.7.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
mass	float (7.9.7.1.2)	Mass of inboard or outboard shield [Kg]; Scalar

Type of: shield:inboard (3966) I shield:outboard (3966)

7.9.7.1.421 simp_apert

Simple aperture specification: rectangular or elliptical

member	type	description
type	identifier (7.9.7.1.256)	Shape identifier; 0: rectangular, 1: elliptical
sizes	vecflt_type (7.9.7.1.18)	Rectangular size a, b or diameters for elliptical shapes [m]; Time-dependent; Vector (2)
angle	float (7.9.7.1.2)	Rotation of aperture around its center [rad]

Type of: reflectometry_radfield_gaussian:aperture (3920)

7.9.7.1.422 solcurdiag_sol_current

Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent

member	type	description
setup	solcurdiag_sol_current_setup (7.9.7.1.423)	diagnostic setup information
measure	exp0D (7.9.7.1.217)	Measured value for the current through the toroidal ring of tiles [A]; Time-dependent; Scalar

Type of: solcurdiag:sol_current (3612)

7.9.7.1.423 solcurdiag_sol_current_setup

diagnostic setup information

member	type	description
name	string (7.9.7.1.4)	Name of the toroidally distributed tile set. String.
id	integer (7.9.7.1.3)	ID of the tile set as a scalar, to be used in connectivity. Integer.
position	rz1D (7.9.7.1.380)	RZ points defining the shape of the toroidal tile set [m]; Vector (npoints)
tiles_turn	integer (7.9.7.1.3)	Number of tiles used to get the full toroidal coverage; Scalar

Type of: solcurdiag_sol_current:setup (3969)

7.9.7.1.424 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	matflt_type (7.9.7.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Array2d (nrho,nzimp)
imp	matflt_type (7.9.7.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Array2d (nrho,nzimp)

Type of: coresource_values:qz (3693) I coresource_values:sz (3693)

7.9.7.1.425 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.7.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.7.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource_values:qi (3693) I coresource_values:si (3693) I coresource_values:ui (3693)

7.9.7.1.426 source_rate

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid	complexgrid (7.9.7.1.103)	Grid for storing the source-rate. Time-dependent; Complexgrid
value	complexgrid_scalar (7.9.7.1.108)	The source-rate of particles in phase space; given on grid [(m/s)^-3 m^-3 s^-1]. Time-dependent; Complexgrid_scalar
discrete	vecint_type (7.9.7.1.19)	List of indexes for the dimensions (coordinates) of grid for which the source is discretely distributed. For example consider a source of 3.5 MeV alpha particles provided on a grid with two coordinates; rho_tor and energy. To specify that the source is given at energies exactly equal to 3.5 MeV, let discret have length 1 and set discrete=(1)=2 since energy is dimension number 2. The source is then proportional to delta(1 - energy / 3.5MeV), where delta is the Direct delta distribution. Discrete dimensions can only be used when the grid is rectangular. Time-dependent; Vector(n_discrete_dimensions)
parameters	parameters (7.9.7.1.332)	Parameters used to defined the grid coordiantes. Time-dependent

Type of: distsource_source:source_rate (3739)

7.9.7.1.427 source_vec

Subtree containing vector source term (radial dimension only)

member	type	description
exp	vecflt_type (7.9.7.1.18)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.7.1.18)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource_values:qe (3693) I coresource_values:se (3693) I coresource_values:ujxb (3693)

7.9.7.1.428 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.7.1.18)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.7.1.18)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.7.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (3675) I profiles1d:qoh (3907)

7.9.7.1.429 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	matflt_type (7.9.7.1.15)	Value of the source term [m^-3.s^-1]; Time-dependent; Array2D (nrho,nzimp)
integral	matflt_type (7.9.7.1.15)	Integral from 0 to rho of the source term. Time-dependent; Array2D(nrho,nzimp)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:source_term (3806)

7.9.7.1.430 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.7.1.15)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.7.1.15)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.7.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (3676)

7.9.7.1.431 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.7.1.4)	Name of species
amn	float (7.9.7.1.2)	Atomic mass number of the species
zn	float (7.9.7.1.2)	Nuclear charge of the impurity
zmin	float (7.9.7.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.7.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (3586)

7.9.7.1.432 species_reference

Defines a reference to a single species in a CPO that includes a compositions structure.

member	type	description
type	identifier (7.9.7.1.256)	The type species: type.flag=1 for electron source; type.flag=2 for ion source taken from compositions/ions; type.flag=3 for impurity source taken from compositions/impur; 4=neutron source; 4=photon source etc (see species_reference_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes).
index	integer (7.9.7.1.3)	Index of the species. This definition of index depends on the value of type; if the species is an ion (type.flag=1) or an impurity (type.flag=2) then the index refers to distribution/compositions/ions, or distribution/compositions/impur, respectively. This field has no meaning for other species, e.g. like electrons, neutrons or photons. The indexing follows the Fortran/Matlab convention where the first element in an array has index 1.

Type of: distri_vec:species (3734) I distsource_source:species (3739)

7.9.7.1.433 spectral

This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.

member	type	description
emissivity	msediag_emissivity (7.9.7.1.298)	Emissivity characteristics.
radiance	msediag_radiance (7.9.7.1.301)	Emissivity characteristics.
codeparam	codeparam (7.9.7.1.98)	Code parameters

Type of: msediag:spectral (3599)

7.9.7.1.434 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.7.1.268)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.7.1.267)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (3595)

7.9.7.1.435 spot

Spot characteristics

member	type	description
size	vecflt_type (7.9.7.1.18)	Size of the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.7.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (3925)

7.9.7.1.436 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	vecflt_type (7.9.7.1.18)	Effective coefficient of physical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.
chemical	vecflt_type (7.9.7.1.18)	Effective coefficient of chemical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:sputtering (3646)

7.9.7.1.437 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
current	exp0D (7.9.7.1.217)	Root mean square current flowing along the strap [A]; Time-Dependent; Float
phase	exp0D (7.9.7.1.217)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.7.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.7.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.7.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float
coord_strap	rz1D (7.9.7.1.380)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (3625)

7.9.7.1.438 structure_cs

Detailed description of the coil structure, for coils that are part of the central solenoid.

member	type	description
gaptf	float (7.9.7.1.2)	gap between CS external radius and TF internal vault radius [m]; Scalar
ri	float (7.9.7.1.2)	CS internal radius [m]; Scalar
re	float (7.9.7.1.2)	CS external radius [m]; Scalar
jcable	float (7.9.7.1.2)	Maximum allowable CS Cable In Conduit current density [A/m^2]; Scalar
current_nom	float (7.9.7.1.2)	Nominal current in the CS conductor [A]; Scalar
sigma	float (7.9.7.1.2)	Maximum allowable stress in the CS [Pa]; Scalar
tiso	float (7.9.7.1.2)	Insulation thickness of CS conductor [m]; Scalar
nlay	float (7.9.7.1.2)	Number of conductor layers in the Central Solenoid; Scalar

Type of: desc_pfcoils:structure_cs (3706)

7.9.7.1.439 t_series_cplx

Time series

member	type	description
time_wind	vecflt_type (7.9.7.1.18)	Time trace [s]; Time-dependent; Vector (n)
values_re	vecflt_type (7.9.7.1.18)	Real part of data; Time-dependent; Vector (n)
values_im	vecflt_type (7.9.7.1.18)	Imaginary part of data; Time-dependent; Vector (n)

Type of: refl_receive:iq_receiver (3917)

7.9.7.1.440 t_series_real

Time series; Time-dependent

member	type	description
time_wind	vecflt_type (7.9.7.1.18)	Time trace [s]; Time-dependent; Vector (n)
values	vecflt_type (7.9.7.1.18)	Values of the sigal; Time-dependent; Vector (n)

Type of: refl_receive:io_signal (3917) I refl_receive:raw_signal (3917)

7.9.7.1.441 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
filled	integer (7.9.7.1.3)	Identifier whether the tables have real data.
table_0d	float (7.9.7.1.2)	NO DOCS
table_1d	vecflt_type (7.9.7.1.18)	NO DOCS
table_2d	matflt_type (7.9.7.1.15)	NO DOCS
table_3d	array3dflt_type (7.9.7.1.7)	NO DOCS
table_4d	array4dflt_type (7.9.7.1.9)	NO DOCS
table_5d	array5dflt_type (7.9.7.1.10)	NO DOCS
table_6d	array6dflt_type (7.9.7.1.11)	NO DOCS
coord1_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 1
coord2_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 2
coord3_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 3
coord4_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 4
coord5_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 5
coord6_str	vecstring_type (7.9.7.1.20)	If needed, an array of strings describing coordinate 6
quality	identifier (7.9.7.1.256)	Characterize the data quality

Type of: tables:table (3989)

7.9.7.1.442 tables

Definition of a process

member	type	description
ndim	integer (7.9.7.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.7.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.7.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.7.1.4)	Unit of the process result
result_trans	integer (7.9.7.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()
zmin	vecint_type (7.9.7.1.19)	Minimum charge state [units of elementary charge]; if equal to zmax then no bundling; Vector(nchargestates)
zmax	vecint_type (7.9.7.1.19)	Maximum charge state [units of elementary charge]; if equal to zmin then no bundling; Vector(nchargestates)
state_label	vecstring_type (7.9.7.1.20)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
table(:)	table (7.9.7.1.441)	Array of data tables, one entry per species. Vector(nchargestates)
data_source	string (7.9.7.1.4)	Filename or subroutine name used to provide this data.
data_provide	string (7.9.7.1.4)	ITM responsible person for this data.

member	type	description
data_citation	string (7.9.7.1.4)	Reference to publication(s).

Type of: amns:tables (3571)

7.9.7.1.443 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords(:)	coords (7.9.7.1.124)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (3571)

7.9.7.1.444 temporary_nt

set of non-timed temporary quantities

member	type	description
float0d(:)	temporary_nt_0dr (7.9.7.1.447)	Constant 0D float
integer0d(:)	temporary_nt_0di (7.9.7.1.446)	Constant 0D integer
complex0d(:)	temporary_nt_0dc (7.9.7.1.445)	Constant 0D complex
string0d(:)	temporary_nt_0ds (7.9.7.1.448)	Constant 0D string
float1d(:)	temporary_nt_1dr (7.9.7.1.451)	Constant 1D float
integer1d(:)	temporary_nt_1di (7.9.7.1.450)	Constant 1D integer
string1d(:)	temporary_nt_1dr (7.9.7.1.451)	Constant 1D string
complex1d(:)	temporary_nt_1dc (7.9.7.1.449)	Constant 1D complex
float2d(:)	temporary_nt_2dr (7.9.7.1.455)	Constant 2D float
integer2d(:)	temporary_nt_2di (7.9.7.1.454)	Constant 2D integer
complex2d(:)	temporary_nt_2dc (7.9.7.1.453)	Constant 2D complex
float3d(:)	temporary_nt_3dr (7.9.7.1.458)	Constant 3D float
integer3d(:)	temporary_nt_3di (7.9.7.1.457)	Constant 3D integer
complex3d(:)	temporary_nt_3dc (7.9.7.1.456)	Constant 3D complex
float4d(:)	temporary_nt_4dr (7.9.7.1.459)	Constant 4D float

Type of: temporary:non_timed (3613)

7.9.7.1.445 temporary_nt_0dc

a non-timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	cplx_type (7.9.7.1.13)	Value. Complex scalar.

Type of: temporary_nt:complex0d (3991)

7.9.7.1.446 temporary_nt_0di

a non-timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	integer (7.9.7.1.3)	Value. integer scalar

Type of: temporary_nt:integer0d (3991)

7.9.7.1.447 temporary_nt_0dr

a non-timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	float (7.9.7.1.2)	Value. Real scalar.

Type of: temporary_nt:float0d (3991)

7.9.7.1.448 temporary_nt_0ds

a non-timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	string (7.9.7.1.4)	Value. String.

Type of: temporary_nt:string0d (3991)

7.9.7.1.449 temporary_nt_1dc

a non-timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	veccplx_type (7.9.7.1.17)	Value. Vector of complex numbers

Type of: temporary_nt:complex1d (3991)

7.9.7.1.450 temporary_nt_1di

a non-timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	vecint_type (7.9.7.1.19)	Value. Vector of integers

Type of: temporary_nt:integer1d (3991)

7.9.7.1.451 temporary_nt_1dr

a non-timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	vecflt_type (7.9.7.1.18)	Value. Vector of float.

Type of: temporary_nt:float1d (3991) I temporary_nt:string1d (3991)

7.9.7.1.452 temporary_nt_1ds

a non-timed temporary quantity of vecstring type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	vecstring_type (7.9.7.1.20)	Value. Vector of strings.

7.9.7.1.453 temporary_nt_2dc

a non-timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matcplx_type (7.9.7.1.14)	Value. Matrix of complex numbers

Type of: temporary_nt:complex2d (3991)

7.9.7.1.454 temporary_nt_2di

a non-timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matint_type (7.9.7.1.16)	Value. Matrix of integers

Type of: temporary_nt:integer2d (3991)

7.9.7.1.455 temporary_nt_2dr

a non-timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matflt_type (7.9.7.1.15)	Value. Matrix of float.

Type of: temporary_nt:float2d (3991)

7.9.7.1.456 temporary_nt_3dc

a non-timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dcplx_type (7.9.7.1.6)	Value. array 3D of complex numbers

Type of: temporary_nt:complex3d (3991)

7.9.7.1.457 temporary_nt_3di

a non-timed temporary quantity of array3dint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dint_type (7.9.7.1.8)	Value. array 3D of integers

Type of: temporary_nt:integer3d (3991)

7.9.7.1.458 temporary_nt_3dr

a non-timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dflt_type (7.9.7.1.7)	Value. array 3D of floats

Type of: temporary_nt:float3d (3991)

7.9.7.1.459 temporary_nt_4dr

a non-timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array4dflt_type (7.9.7.1.9)	Value. array 4D of floats

Type of: temporary_nt:float4d (3991)

7.9.7.1.460 temporary_t

set of timed temporary quantities

member	type	description
float0d(:)	temporary_t_0dr (7.9.7.1.463)	Time-dependent 0D float
integer0d(:)	temporary_t_0di (7.9.7.1.462)	Time-dependent 0D integer.
complex0d(:)	temporary_t_0dc (7.9.7.1.461)	Time-dependent 0D complex.
string0d(:)	temporary_t_0ds (7.9.7.1.464)	Time-dependent 0D string.
float1d(:)	temporary_t_1dr (7.9.7.1.467)	Time-dependent 1D float.
integer1d(:)	temporary_t_1di (7.9.7.1.466)	Time-dependent 1D integer.
complex1d(:)	temporary_t_1dc (7.9.7.1.465)	Time-dependent 1D complex
float2d(:)	temporary_t_2dr (7.9.7.1.470)	Time-dependent 2D float
integer2d(:)	temporary_t_2di (7.9.7.1.469)	Time-dependent 2D integer
complex2d(:)	temporary_t_2dc (7.9.7.1.468)	Time-dependent 2D complex
float3d(:)	temporary_t_3dr (7.9.7.1.473)	Time-dependent 3D float
integer3d(:)	temporary_t_3di (7.9.7.1.472)	Time-dependent 3D integer
complex3d(:)	temporary_t_3dc (7.9.7.1.471)	Time-dependent 3D complex
float4d(:)	temporary_t_4dr (7.9.7.1.474)	Time-dependent 4D float

Type of: temporary:timed (3613)

7.9.7.1.461 temporary_t_0dc

a timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	cplx_type (7.9.7.1.13)	Value. Time-dependent. Complex scalar.

Type of: temporary_t:complex0d (4007)

7.9.7.1.462 temporary_t_0di

a timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	integer (7.9.7.1.3)	Value. Time-dependent. integer scalar

Type of: temporary_t:integer0d (4007)

7.9.7.1.463 temporary_t_0dr

a timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	float (7.9.7.1.2)	Value. Time-dependent. Real scalar.

Type of: temporary_t:float0d (4007)

7.9.7.1.464 temporary_t_0ds

a timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	string (7.9.7.1.4)	Value. Time-dependent. String.

Type of: temporary_t:string0d (4007)

7.9.7.1.465 temporary_t_1dc

a timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	veccplx_type (7.9.7.1.17)	Value. Time-dependent. Vector of complex numbers

Type of: temporary_t:complex1d (4007)

7.9.7.1.466 temporary_t_1di

a timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	vecint_type (7.9.7.1.19)	Value. Time-dependent. Vector of integers

Type of: temporary_t:integer1d (4007)

7.9.7.1.467 temporary_t_1dr

a timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	vecflt_type (7.9.7.1.18)	Value. Time-dependent. Vector of float.

Type of: temporary_t:float1d (4007)

7.9.7.1.468 temporary_t_2dc

a timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matcplx_type (7.9.7.1.14)	Value. Time-dependent. Matrix of complex numbers

Type of: temporary_t:complex2d (4007)

7.9.7.1.469 temporary_t_2di

a timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matint_type (7.9.7.1.16)	Value. Time-dependent. Matrix of integers

Type of: temporary_t:integer2d (4007)

7.9.7.1.470 temporary_t_2dr

a timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	matflt_type (7.9.7.1.15)	Value. Time-dependent. Matrix of float.

Type of: temporary_t:float2d (4007)

7.9.7.1.471 temporary_t_3dc

a timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dcplx_type (7.9.7.1.6)	Value. Time-dependent. array 3D of complex numbers

Type of: temporary_t:complex3d (4007)

7.9.7.1.472 temporary_t_3di

a timed temporary quantity of array3dint type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dint_type (7.9.7.1.8)	Value. Time-dependent. array 3D of integers

Type of: temporary_t:integer3d (4007)

7.9.7.1.473 temporary_t_3dr

a timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array3dflt_type (7.9.7.1.7)	Value. Time-dependent. array 3D of floats

Type of: temporary_t:float3d (4007)

7.9.7.1.474 temporary_t_4dr

a timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.7.1.256)	Identifier.
value	array4dflt_type (7.9.7.1.9)	Value. Time-dependent. array 4D of floats

Type of: temporary_t:float4d (4007)

7.9.7.1.475 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.7.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.7.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.7.1.96)	Circular coil description
planecoil	planecoil (7.9.7.1.351)	Plane coil description
inboard	tf_structure (7.9.7.1.477)	Description of TF inboard structure
outboard	tf_structure (7.9.7.1.477)	Description of TF outboard structure

Type of: toroidfield:desc_tfcoils (3615)

7.9.7.1.476 tf_desc_tfcoils_board

Description of TF inboard/outboard properties

member	type	description
structure	tf_structure (7.9.7.1.477)	TF coil structure

7.9.7.1.477 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.7.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.7.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.7.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.7.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.7.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.7.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.7.1.2)	Amplification factor for magnetic field
ritf	float (7.9.7.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.7.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.7.1.2)	External TF coil radius [m]; Scalar
he_fraction	float (7.9.7.1.2)	Helium fraction (percentage) in TF structure infront of winding package [-]; Scalar
ss_fraction	float (7.9.7.1.2)	Stainless steel 316 fraction (percentage) in TF structure infront of winding package [-]; Scalar
pow_dens_wp	float (7.9.7.1.2)	Peak energy depostion in winding pack [W.m^-3]; Scalar

Type of: tf_desc_tfcoils:inboard (4022) I tf_desc_tfcoils:outboard (4022) I tf_desc_tfcoils_board:structure (4023)

7.9.7.1.478 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.7.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.

member	type	description
th2th_pol	matflt_type (7.9.7.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (4068)

7.9.7.1.479 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.7.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.7.1.11)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.7.1.11)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.7.1.11)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.7.1.11)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.7.1.11)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).
dim6	array6dflt_type (7.9.7.1.11)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.7.1.11)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.7.1.11)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.7.1.480 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.7.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.7.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.7.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.7.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (3579)

7.9.7.1.481 trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.7.1.15)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.7.1.19)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.7.1.15)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.7.1.15)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
phi	matflt_type (7.9.7.1.15)	Toroidal angle of the guiding centre [rad]; Time-dependent; Matrix (norbits, max_ntorb).
psi	matflt_type (7.9.7.1.15)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.7.1.15)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.7.1.15)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.7.1.15)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:trace (3603)

7.9.7.1.482 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.7.1.18)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.7.1.18)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.7.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.7.1.322)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:te_transp (3697) I neoclassic:mtor_neo (3601) I neoclassic:ne_neo (3601) I neoclassic:te_neo (3601)

7.9.7.1.483 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	matflt_type (7.9.7.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array2d (nrho,nzimp)
vconv_eff	matflt_type (7.9.7.1.15)	Effective convection [m.s^-1]. Time-dependent. Array2d (nrho,nzimp)
exchange	matflt_type (7.9.7.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array2d (nrho,nzimp)
flux	matflt_type (7.9.7.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array2d (nrho,nzimp)
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp_values:nz_transp (3697) I coretransp_values:tz_transp (3697) I neoclassic:nz_neo (3601) I neoclassic:tz_neo (3601)

7.9.7.1.484 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.7.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.7.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.7.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.7.1.15)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.7.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.7.1.323)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ti_transp (3697) I neoclassic:ni_neo (3601) I neoclassic:ti_neo (3601)

7.9.7.1.485 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.7.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.7.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.7.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.7.1.323)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.

member	type	description
flag	integer (7.9.7.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:vtor_transp (3697)

7.9.7.1.486 trap_type

Definition of trap types. Array of structures (number of trap types)

member	type	description
trap_id	identifier (7.9.7.1.256)	Identifier for the trap type
compound	integer (7.9.7.1.3)	Index of the compound doing the trapping. Refers to (local) ../compounds.
gas_species	integer (7.9.7.1.3)	Index of the gas species being trapped. Refers to (local) ../gases.
energy	float (7.9.7.1.2)	Energy depth of the trap [eV]
fill_factor	matflt_type (7.9.7.1.15)	Discretized filling fraction of traps in this layer (0...1) [-]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid
density	matflt_type (7.9.7.1.15)	Discretized density of traps in this layer [1/m^3]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid

Type of: wall_unitsComplexType_layers:trap_type (4058)

7.9.7.1.487 trianglexyz

Triangular surface described by its three corners: point1, point2, and point3. The normal vector of this triangle is defined to be in the direction (point2-point1)x(point3-point1).

member	type	description
point1	xyz0D (7.9.7.1.530)	Point 1 on the triangle
point2	xyz0D (7.9.7.1.530)	Point 2 on the triangle
point3	xyz0D (7.9.7.1.530)	Point 3 on the triangle

Type of: nbi_nbi_unit_wall_surface:triangle (3853)

7.9.7.1.488 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.7.1.218)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.7.1.218)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (3616)

7.9.7.1.489 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.7.1.386)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (3616)

7.9.7.1.490 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.7.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.7.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.7.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)

member	type	description
ie_mass	vecflt_type (7.9.7.1.18)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (3617)

7.9.7.1.491 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.7.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.7.1.493)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.7.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.7.1.15)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.7.1.15)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.7.1.15)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.7.1.15)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.7.1.15)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.7.1.15)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.7.1.390)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (3617)

7.9.7.1.492 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.7.1.18)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.7.1.18)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.7.1.18)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.7.1.18)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.7.1.18)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.7.1.18)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.7.1.18)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.7.1.15)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.7.1.15)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.7.1.15)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.7.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.7.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.7.1.15)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.7.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.7.1.15)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (3617)

7.9.7.1.493 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.7.1.18)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.7.1.18)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.7.1.18)	Third dimension values; Vector (ndim3).
dim_v1	vecflt_type (7.9.7.1.18)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.7.1.18)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (4038)

7.9.7.1.494 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.7.1.18)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.7.1.18)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.7.1.18)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.7.1.18)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.7.1.18)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.7.1.18)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.7.1.18)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.7.1.15)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.7.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.7.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.7.1.15)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.7.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.7.1.15)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (3617)

7.9.7.1.495 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.7.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.7.1.18)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.7.1.18)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).
en_mag	vecflt_type (7.9.7.1.18)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.7.1.18)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.7.1.15)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.7.1.18)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.7.1.15)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.7.1.18)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.7.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.7.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.7.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.7.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.7.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.7.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.7.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.7.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (3617)

7.9.7.1.496 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.7.1.18)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.7.1.18)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.7.1.18)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).
apl	vecflt_type (7.9.7.1.18)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.7.1.18)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.7.1.18)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.7.1.18)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.7.1.15)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.7.1.15)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.7.1.15)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (3617)

7.9.7.1.497 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.7.1.18)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.7.1.18)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.7.1.15)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.7.1.15)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.7.1.15)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.7.1.15)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.7.1.15)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.7.1.15)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.7.1.7)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.7.1.7)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.7.1.7)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (3617)

7.9.7.1.498 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.7.1.7)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.7.1.7)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.7.1.7)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.7.1.7)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (3617)

7.9.7.1.499 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.7.1.9)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.7.1.10)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (3617)

7.9.7.1.500 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.7.1.10)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).
fi	array6dflt_type (7.9.7.1.11)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (3617)

7.9.7.1.501 version_ind

Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.

member	type	description
description	vecstring_type (7.9.7.1.20)	Description of each version.
releasedate	string (7.9.7.1.4)	Release date
data_release(:)	data_release (7.9.7.1.154)	For this release, an array over each data item (i.e. shot/run pair containing the actual data) included in this release

Type of: amns:version_ind (3571)

7.9.7.1.502 wall2d

A 2D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas tight vs wall with ports and holes)

member	type	description
wall_id	identifier (7.9.7.1.256)	Use this identifier to tag the type of 2d wall you are using. Use 0 for equilibrium codes (single closed limiter and vessel); 1 for gas-tight walls (disjoint PFCs with inner vessel as last limiter_unit; no vessel structure); 2 for free boundary codes (disjoint PFCs and vessel)
limiter	wall_limiter (7.9.7.1.507)	Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type). Time-dependent
vessel	wall_vessel (7.9.7.1.512)	Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)
plasma(:)	plasmaComplexType (7.9.7.1.352)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.7.1.510)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent

Type of: wall:wall2d (3618)

7.9.7.1.503 wall2d_mhd

Simplified wall that encloses necessary information for RWM codes.

member	type	description
res_wall(:)	mhd_res_wall2d (7.9.7.1.287)	Resistive Wall(s).
ideal_wall	mhd_ideal_wall2d (7.9.7.1.284)	Ideal wall

Type of: wall:wall2d_mhd (3618)

7.9.7.1.504 wall3d

3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent

member	type	description
wall_id	identifier (7.9.7.1.256)	Identify the type of wall - 0 for gas tight and 1 for a wall with holes/open ports
grid	complexgrid (7.9.7.1.103)	Grid description
plasma(:)	plasmaComplexType (7.9.7.1.352)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.7.1.510)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
basis_index	integer (7.9.7.1.3)	Index of basis vectors in wall/wall3d/grid/basis used to define vector quantities e.g. in plasma.

Type of: wall:wall3d (3618)

7.9.7.1.505 wall_blocks

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
blocks_unit(:)	wall_blocks_unit (7.9.7.1.506)	Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

Type of: wall_vessel_unit:blocks (4061)

7.9.7.1.506 wall_blocks_unit

Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

member	type	description
name	string (7.9.7.1.4)	Name or description of the blocks_unit
position	rz1D (7.9.7.1.380)	Position (R,Z coordinates) of a vessel segment. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.7.1.2)	Resistivity of the vessel segment [ohm.m]; Scalar
permeability	float (7.9.7.1.2)	Vessel relative permeability; Scalar
j_phi	float (7.9.7.1.2)	induced currents inside the vessel; time dependent; [A]
resistance	float (7.9.7.1.2)	resistance of block; [Ohm]

Type of: wall_blocks:blocks_unit (4052)

7.9.7.1.507 wall_limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type)

member	type	description
limiter_id	identifier (7.9.7.1.256)	Use this identifier to tag the type of limiter you are using. Use flag=0 for the official single contour limiter and 1 for the official disjoint PFC structure like first wall. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2
limiter_unit(:)	limiter_unit (7.9.7.1.273)	Array of ncomponents limiting surfaces making up the limiter type (single contour or disjoint PFC). Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents). Time-dependent

Type of: wall2d:limiter (4049)

7.9.7.1.508 wall_types

Reference wall type

member	type	description
label	string (7.9.7.1.4)	Label for this reference wall type
layers(:)	wall_types_layers (7.9.7.1.509)	Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

Type of: wall:wall_types (3618)

7.9.7.1.509 wall_types_layers

Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

member	type	description
thickness	float (7.9.7.1.2)	Thickness of layer [m]

member	type	description
chem_comp	vecflt_type (7.9.7.1.18)	Chemical composition of the layer in terms of the chemical compounds defined in wall/design_comp/compounds. Vector of fractional concentrations.

Type of: wall_types:layers (4055)

7.9.7.1.510 wall_unitsComplexType

Data for individual wall elements; Time-dependent

member	type	description
wall_type	integer (7.9.7.1.3)	Definition of reference wall composition for every subgrid of the wall discretization. Vector of integers (number of subgrids). The indices point to wall/wall_types.
n_depo_layer	integer (7.9.7.1.3)	Number of deposited layers (in addition to the engineering layers)
layers(:)	wall_unitsComplexType_layers (7.9.7.1.511)	Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent
eta	complexgrid_scalar (7.9.7.1.108)	Resitivity of wall element described by grid geometry [Ohm.m]
permeability	complexgrid_scalar (7.9.7.1.108)	Relative permeability of wall element described by grid geometry [-]
j	complexgrid_vector (7.9.7.1.114)	Current density vector in the element specified by the grid representation. [A/m^2]

Type of: wall2d:wall_state (4049) I wall3d:wall_state (4051)

7.9.7.1.511 wall_unitsComplexType_layers

Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent

member	type	description
elements	vecint_type (7.9.7.1.19)	List of elements present in the solid phase in this layer. Vector (number of elements). Holds indices pointing to wall/elements
gases	vecint_type (7.9.7.1.19)	List of gases present in this layer. Vector (number of gases). Holds indices pointing to wall/elements
compounds	vecint_type (7.9.7.1.19)	List of compounds present in the solid phase in this layer. Vector (number of compounds). Holds indices pointing to wall/compounds
density	matflt_type (7.9.7.1.15)	Discretized density distribution in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
dx	matflt_type (7.9.7.1.15)	Size of the vertical cells in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
thickness	vecflt_type (7.9.7.1.18)	Total size of the layer [m] (i.e. sum of dx over the number of vertical cells in the layer); Time-dependent; Vector (number of discretization elements in the subgrid)
roughness	array3dflt_type (7.9.7.1.7)	Interface roughness description between the discrete elements and their top neighbour (i.e. towards the plasma); Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of roughness parameter); Roughness parameter 1: RMS height [m], parameter 2: wavelength along projection of B on the surface [m], parameter 3: wavelength perpendicular to projection of B on the surface [m]. If only two parameters are given the parameters are assumed to be isotropic
porosity	array3dflt_type (7.9.7.1.7)	Discrete description of porosity of the layer. Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of porosity parameter); Porosity parameter 1: Volume fraction occupied by the pores [-], parameter 2: average size of the pores [m]
dpa	matflt_type (7.9.7.1.15)	Discretized number of displacements per atom in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
temperature	matflt_type (7.9.7.1.15)	Discretized temperature distribution in the layer of the discrete wall elements in the subgrid [eV]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
element_frac	array3dflt_type (7.9.7.1.7)	Fractional abundance of elements in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical elements as given in (local) elements, number of vertical cells in layer, number of discretization elements in the subgrid)
chem_comp	array3dflt_type (7.9.7.1.7)	Fractional abundance of chemical compounds in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical compounds as given in (local) compounds, number of vertical cells in layer, number of discretization elements in the subgrid)
bulk_D	array4dflt_type (7.9.7.1.9)	Diffusivity of gas species in bulks of different compounds [m^2/s]; Time-dependent; 4d float array. Dimensions: 1. index of compound (indexing as in (local) compounds), 2. index of gas element (indexing as in (local) gases), 3. cell index of 1d layer height discretization, 4. number of discretization elements in the subgrid

member	type	description
surface_D	array4dflt_type (7.9.7.1.9)	Diffusivity of hydrogen species of surface of different compounds [m^2/s]; Time-dependent; Dimensions: see bulk_D
bulk_solute	array4dflt_type (7.9.7.1.9)	Bulk mobile (solute) concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surf_solute	array4dflt_type (7.9.7.1.9)	Surface mobile (solute) concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
pore_content	array3dflt_type (7.9.7.1.7)	Amount of gas species trapped in pores per cubic meter [1/m^3]; Time-dependent; 3d float array. Dimensions: 1. index of gas element (indexing as in (local) gases), 2. cell index of 1d layer height discretization, 3. number of discretization element in the subgrid
trap_type(:)	trap_type (7.9.7.1.486)	Definition of trap types. Array of structures (number of trap types)

Type of: wall_unitsComplexType:layers (4057)

7.9.7.1.512 wall_vessel

Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)

member	type	description
vessel_id	identifier (7.9.7.1.256)	Use this identifier to tag the type of vessel you are using. Use flag=0 for the official single/multiple annular vessel and 1 for the official block element representation for each vessel unit. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2
vessel_unit(:)	wall_vessel_unit (7.9.7.1.514)	Array of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall2d:vessel (4049)

7.9.7.1.513 wall_vessel_annular

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
name	string (7.9.7.1.4)	Name or description of the vessel_unit
inside	rz1D (7.9.7.1.380)	Inner Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
outside	rz1D (7.9.7.1.380)	Outer Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_outer)
eta	float (7.9.7.1.2)	Vessel resistivity [ohm.m]; Scalar
permeability	float (7.9.7.1.2)	Vessel relative permeability; Scalar

Type of: wall_vessel_unit:annular (4061)

7.9.7.1.514 wall_vessel_unit

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
annular	wall_vessel_annular (7.9.7.1.513)	Annular representation of a vessel layer by two free-hand contours.
blocks	wall_blocks (7.9.7.1.505)	Block element representation of vessel units. Each vessel unit is decomposed in elementary small units (blocks) caracyerized by a position, resistivity and relative permeability.
radial_build	wall_wall2d_vessel_radial_build (7.9.7.1.517)	Simple description of this vessel unit for the radial_build in system codes

Type of: wall_vessel:vessel_unit (4059)

7.9.7.1.515 wall_wall0d

Simple 0D description of plasma-wall interaction

member	type	description
pumping_speed	vecflt_type (7.9.7.1.18)	pumping speed; Time-dependent. vector(nneut); [particles/s]
gas_puff	vecflt_type (7.9.7.1.18)	gas puff; vector(nneut); Time-dependent. [particles/s]
wall_inventory	vecflt_type (7.9.7.1.18)	wall inventory; vector(nneut); Time-dependent. [particles]
recycling_coefficient	vecflt_type (7.9.7.1.18)	Recycling coefficient. Vector(nneut) Time-dependent.
wall_temperature	float (7.9.7.1.2)	Wall temperature [K]. Time-dependent. Scalar
power_from_plasma	float (7.9.7.1.2)	Power flowing from the plasma to the wall [W]. Time-dependent. Scalar
power_to_cooling	float (7.9.7.1.2)	Power to cooling systems [W]. Time-dependent. Scalar
plasma	wall_wall0d_plasma (7.9.7.1.516)	NO DOCS

Type of: wall:wall0d (3618)

7.9.7.1.516 wall_wall0d_plasma

member	type	description
species_index	matint_type (7.9.7.1.16)	Index of species into wall/compositions; matrix(nspecies,3); 1st element indicates {1: main ions; 2:impurities; 3:neutrals; 4:edge species); 2nd element indicates index into that array; 3rd index indicates charge state if 1st element points to inpurities or neutral type if 1st element points to neutrals;
flux	vecflt_type (7.9.7.1.18)	flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [particles/s]
energy	vecflt_type (7.9.7.1.18)	energy flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [W]

Type of: wall_wall0d:plasma (4062)

7.9.7.1.517 wall_wall2d_vessel_radial_build

Simple description of this vessel unit for the radial_build in system codes

member	type	description
r1_inb	float (7.9.7.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r2_inb	float (7.9.7.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r1_outb	float (7.9.7.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
r2_outb	float (7.9.7.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
raddim	float (7.9.7.1.2)	Radial thickness of the vacuum vessel; Scalar
nmat	float (7.9.7.1.2)	Number of materials; Scalar
composition	vecflt_type (7.9.7.1.18)	Inboard shield radial build giving the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector
pow_dens_inb	float (7.9.7.1.2)	Peak energy depostion in vaccum vessel inboard [W.m^-3]; Scalar
pow_dens_outb	float (7.9.7.1.2)	Peak energy depostion in vaccum vessel outboard [W.m^-3]; Scalar
fn_flux_inb	float (7.9.7.1.2)	Fast neutron flux in vaccum vessel inboard [m^2.s^-1]; Scalar
fn_flux_outb	float (7.9.7.1.2)	Fast neutron flux in vaccum vessel outboard [m^2.s^-1]; Scalar

Type of: wall_vessel_unit:radial_build (4061)

7.9.7.1.518 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.7.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.7.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.7.1.19)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.7.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.7.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.7.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.7.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.7.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.7.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.7.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.7.1.18)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.7.1.18)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (3843)

7.9.7.1.519 waves_global_param

Global wave deposition parameters

member	type	description
name	string (7.9.7.1.4)	Antenna name, String
type	string (7.9.7.1.4)	Wave type (LH, EC, IC, ...), String
f_assumption	vecint_type (7.9.7.1.19)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
code_type	integer (7.9.7.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
frequency	float (7.9.7.1.2)	Wave frequency [Hz]; Time-dependent, floating
ntor	vecint_type (7.9.7.1.19)	Toroidal mode numbers; Time-dependent; Vector (ntor)
power_tot	float (7.9.7.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.7.1.18)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_e	float (7.9.7.1.2)	Wave power absorbed by the thermal electrons [W]; Time-dependent; Float
pow_i	vecflt_type (7.9.7.1.18)	Wave power absorbed by the thermal ion species [W]; Time-dependent; Vector (nion)
pow_z	matflt_type (7.9.7.1.15)	Wave power absorbed by the thermal impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_fe	float (7.9.7.1.2)	Wave power absorbed by the fast electrons [W]; Time-dependent; Float
pow_fi	vecflt_type (7.9.7.1.18)	Wave power absorbed by the fast ion species [W]; Time-dependent; Vector (nion)
pow_fz	matflt_type (7.9.7.1.15)	Wave power absorbed by the fast impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_ntor_e	vecflt_type (7.9.7.1.18)	Wave power absorbed by the thermal electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_i	matflt_type (7.9.7.1.15)	Wave power absorbed by an the thermal ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)
pow_ntor_z	array3dflt_type (7.9.7.1.7)	Wave power absorbed by an the thermal impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
pow_ntor_fe	vecflt_type (7.9.7.1.18)	Wave power absorbed by the fast electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_fi	matflt_type (7.9.7.1.15)	Wave power absorbed by an the fast ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)
pow_ntor_fz	array3dflt_type (7.9.7.1.7)	Wave power absorbed by an the fast impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
cur_tor	float (7.9.7.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.7.1.18)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
mag_axis	rz0D (7.9.7.1.379)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.7.1.80)	Characteristics of the vacuum toroidal field (used to define the rho_tor coordinate and the normalisation of parallel current densities).

Type of: coherentwave:global_param (3647)

7.9.7.1.520 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor	vecflt_type (7.9.7.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.7.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.7.1.18)	Poloidal flux function [Wb], evaluated without 1/2pi, such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.7.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.7.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (3647)

7.9.7.1.521 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.7.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.7.1.15)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface (or last available fluxsurface from a fix boundary equilibrium code). Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.7.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.7.1.15)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.7.1.15)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.7.1.15)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.7.1.15)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.7.1.478)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (3647)

7.9.7.1.522 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.7.1.18)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.7.1.18)	Flux surface averaged absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.7.1.15)	Flux surface averaged absorbed wave power density on the thermal ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_z	array3dflt_type (7.9.7.1.7)	Flux surface averaged absorbed wave power density on the thermal impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)
powd_fe	vecflt_type (7.9.7.1.18)	Flux surface averaged absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_fi	matflt_type (7.9.7.1.15)	Flux surface averaged absorbed wave power density on the fast ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_fz	array3dflt_type (7.9.7.1.7)	Flux surface averaged absorbed wave power density on the fast impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)
powd_ntor	matflt_type (7.9.7.1.15)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.7.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.7.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_z	array4dflt_type (7.9.7.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
powd_ntor_fe	matflt_type (7.9.7.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)

member	type	description
powd_ntor_fi	array3dflt_type (7.9.7.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_fz	array4dflt_type (7.9.7.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_tor	vecflt_type (7.9.7.1.18)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.7.1.15)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.7.1.18)	Cumulative volume integral of the absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.7.1.18)	Cumulative volume integral of the absorbed wave power on the thermal electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.7.1.15)	Cumulative volume integral of the absorbed wave power on the thermal ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_z	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power on the thermal impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_fe	vecflt_type (7.9.7.1.18)	Cumulative volume integral of the absorbed wave power on the fast electrons [W]; Time-dependent; Vector (npsi)
pow_fi	matflt_type (7.9.7.1.15)	Cumulative volume integral of the absorbed wave power on the fast ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_fz	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power on the fast impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_ntor	matflt_type (7.9.7.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.7.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the thermal electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_z	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
pow_ntor_fe	matflt_type (7.9.7.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the fast electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_fi	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_fz	array3dflt_type (7.9.7.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_par	vecflt_type (7.9.7.1.18)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.7.1.15)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.7.1.18)	Wave driven toroidal current inside a flux surface [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.7.1.15)	Wave driven toroidal current inside a flux surface for each toroidal mode number [A]; Time-dependent; Matrix (npsi, ntor)
e_plus_ave	matflt_type (7.9.7.1.15)	The left hand polarised electric field component, E_plus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_plus_ave = ave(E_plus P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_minus_ave	matflt_type (7.9.7.1.15)	The right hand polarised electric field component, E_minus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_minus_ave = ave(E_minus P) / ave(P), where (*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_para_ave	matflt_type (7.9.7.1.15)	The parallel electric field component, E_para [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_para_ave = ave(E_para P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
k_perp_ave	matflt_type (7.9.7.1.15)	The perpendicular wave number, k_perp [1/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that k_perp_ave = ave(k_perp P) / (P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (3647)

7.9.7.1.523 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.7.1.15)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.7.1.15)	Absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.7.1.7)	Absorbed wave power density on each thermal ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)

member	type	description
powd_z	array4dflt_type (7.9.7.1.9)	Absorbed wave power density on each thermal impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_fe	matflt_type (7.9.7.1.15)	Absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_fi	array3dflt_type (7.9.7.1.7)	Absorbed wave power density on each fast ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_fz	array4dflt_type (7.9.7.1.9)	Absorbed wave power density on each fast impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_ntor	array3dflt_type (7.9.7.1.7)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.7.1.7)	Absorbed power density for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.7.1.9)	Absorbed power density for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_z	array5dflt_type (7.9.7.1.10)	Absorbed power density for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_ntor_fe	array3dflt_type (7.9.7.1.7)	Absorbed power density for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_fi	array4dflt_type (7.9.7.1.9)	Absorbed power density for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_fz	array5dflt_type (7.9.7.1.10)	Absorbed power density for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_iharm	array5dflt_type (7.9.7.1.10)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (3647)

7.9.7.1.524 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.7.1.18)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.7.1.18)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.7.1.18)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.7.1.18)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.7.1.18)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (3634)

7.9.7.1.525 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.7.1.18)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.7.1.18)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.7.1.18)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent
npar	vecflt_type (7.9.7.1.18)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.7.1.18)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.7.1.18)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.7.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (3634)

7.9.7.1.526 weighted_markers

Array of NMARK weighted markers in NDIM dimensions

member	type	description

member	type	description
variable_ids(:)	identifier (7.9.7.1.256)	Identifier for the variable_ids stored in the coord matrix (see coordinate_identifier_definitions in the Documentation website under Conventions/Enumerated_datatypes). Vector(NDIM)
coord	matflt_type (7.9.7.1.15)	Coordinates of the markers. The coordinates used is specified in variable_ids. Time-dependent; Float(NMARK,NDIM)
weight	vecflt_type (7.9.7.1.18)	Weight of the marker; number of real particles represented by the marker. Time-dependent; Float(NMARK)

Type of: dist_func:markers (3714) I distsource_source:markers (3739)

7.9.7.1.527 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.7.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.7.1.4)	Name of the device
shot	integer (7.9.7.1.3)	Shot number
run	integer (7.9.7.1.3)	Run number
occurrence	integer (7.9.7.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (3702)

7.9.7.1.528 width

Angular width of each in the poloidal and toroidal direction;

member	type	description
dtheta	vecflt_type (7.9.7.1.18)	Angular poloidal width of holes; Vector (n_holes)
phi	vecflt_type (7.9.7.1.18)	Angular toroidal width of holes; Vector (n_holes)

Type of: holes:width (3802)

7.9.7.1.529 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.7.1.380)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.7.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.7.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.7.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.7.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.7.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (3757)

7.9.7.1.530 xyz0D

Structure for a single (x,y,z) position (0D)

member	type	description
x	float (7.9.7.1.2)	Spatial coordinate x [m]
y	float (7.9.7.1.2)	Spatial coordinate y [m]
z	float (7.9.7.1.2)	Spatial coordinate z [m]

Type of: flat_polygon:basis1 (3770) I flat_polygon:basis2 (3770) I flat_polygon:origin (3770) I rectanglexyz:point01 (3914) I rectanglexyz:point10 (3914) I rectanglexyz:point11 (3914) I trianglexyz:point1 (4034) I trianglexyz:point2

(4034) I trianglexyz:point3 (4034) itmtypes [567]

7.9.7.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.7.2.1 Fortran

7.9.7.2.2 amns

datainfo (3571)	amns%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	amns%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	amns%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	amns%datainfo%source (string) (7.9.7.1.4)
comment (3702)	amns%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	amns%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	amns%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	amns%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	amns%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	amns%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	amns%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	amns%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	amns%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	amns%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	amns%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	amns%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	amns%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	amns%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	amns%datainfo%putinfo%rights (string) (7.9.7.1.4)
version (3571)	amns%version (string) (7.9.7.1.4)
source (3571)	amns%source (string) (7.9.7.1.4)
zn (3571)	amns%zn (integer) (7.9.7.1.3)
amn (3571)	amns%amn (float) (7.9.7.1.2)
process (3571)	amns%process(:) (amns_processType) (7.9.7.1.74)
proc_label (3621)	amns%process(:)%proc_label (string) (7.9.7.1.4)
reactant (3621)	amns%process(:)%reactant(:) (reacprodType) (7.9.7.1.365)
label (3912)	amns%process(:)%reactant(:)%label (string) (7.9.7.1.4)
constituents (3912)	amns%process(:)%reactant(:)%constituents(:) (amns_constituentType) (7.9.7.1.73)
label (3620)	amns%process(:)%reactant(:)%constituents(:)%label (string) (7.9.7.1.4)
zn (3620)	amns%process(:)%reactant(:)%constituents(:)%zn (integer) (7.9.7.1.3)
mn (3620)	amns%process(:)%reactant(:)%constituents(:)%mn (integer) (7.9.7.1.3)
multiplicity (3620)	amns%process(:)%reactant(:)%constituents(:)%multiplicity (float) (7.9.7.1.2)
role (3912)	amns%process(:)%reactant(:)%role (identifier) (7.9.7.1.256)
id (3803)	amns%process(:)%reactant(:)%role%id (string) (7.9.7.1.4)
flag (3803)	amns%process(:)%reactant(:)%role%flag (integer) (7.9.7.1.3)
description (3803)	amns%process(:)%reactant(:)%role%description (string) (7.9.7.1.4)
amn (3912)	amns%process(:)%reactant(:)%amn (float) (7.9.7.1.2)
relative (3912)	amns%process(:)%reactant(:)%relative (integer) (7.9.7.1.3)
za (3912)	amns%process(:)%reactant(:)%za (float) (7.9.7.1.2)
multiplicity (3912)	amns%process(:)%reactant(:)%multiplicity (float) (7.9.7.1.2)
metastable (3912)	amns%process(:)%reactant(:)%metastable (vecint_type) (7.9.7.1.19)
metastable_label (3912)	amns%process(:)%reactant(:)%metastable_label (string) (7.9.7.1.4)
product (3621)	amns%process(:)%product(:) (reacprodType) (7.9.7.1.365)
label (3912)	amns%process(:)%product(:)%label (string) (7.9.7.1.4)
constituents (3912)	amns%process(:)%product(:)%constituents(:) (amns_constituentType) (7.9.7.1.73)
label (3620)	amns%process(:)%product(:)%constituents(:)%label (string) (7.9.7.1.4)
zn (3620)	amns%process(:)%product(:)%constituents(:)%zn (integer) (7.9.7.1.3)
mn (3620)	amns%process(:)%product(:)%constituents(:)%mn (integer) (7.9.7.1.3)
multiplicity (3620)	amns%process(:)%product(:)%constituents(:)%multiplicity (float) (7.9.7.1.2)
role (3912)	amns%process(:)%product(:)%role (identifier) (7.9.7.1.256)

[567] https://www.efda-itm.eu/ITM/html/itmtypes__4.10b.10.html

id (3803)	amns%process(:)%product(:)%role%id (string) (7.9.7.1.4)
flag (3803)	amns%process(:)%product(:)%role%flag (integer) (7.9.7.1.3)
description (3803)	amns%process(:)%product(:)%role%description (string) (7.9.7.1.4)
amn (3912)	amns%process(:)%product(:)%amn (float) (7.9.7.1.2)
relative (3912)	amns%process(:)%product(:)%relative (integer) (7.9.7.1.3)
za (3912)	amns%process(:)%product(:)%za (float) (7.9.7.1.2)
multiplicity (3912)	amns%process(:)%product(:)%multiplicity (float) (7.9.7.1.2)
metastable (3912)	amns%process(:)%product(:)%metastable (vecint_type) (7.9.7.1.19)
metastable_label (3912)	amns%process(:)%product(:)%metastable_label (string) (7.9.7.1.4)
sup_string (3621)	amns%process(:)%sup_string (vecstring_type) (7.9.7.1.20)
sup_real (3621)	amns%process(:)%sup_real (vecflt_type) (7.9.7.1.18)
sup_int (3621)	amns%process(:)%sup_int (vecint_type) (7.9.7.1.19)
quality (3621)	amns%process(:)%quality (identifier) (7.9.7.1.256)
id (3803)	amns%process(:)%quality%id (string) (7.9.7.1.4)
flag (3803)	amns%process(:)%quality%flag (integer) (7.9.7.1.3)
description (3803)	amns%process(:)%quality%description (string) (7.9.7.1.4)
err_proc_label (3621)	amns%process(:)%err_proc_label (string) (7.9.7.1.4)
tables (3571)	amns%tables(:) (tables) (7.9.7.1.442)
ndim (3989)	amns%tables(:)%ndim (integer) (7.9.7.1.3)
coord_index (3989)	amns%tables(:)%coord_index (integer) (7.9.7.1.3)
result_label (3989)	amns%tables(:)%result_label (string) (7.9.7.1.4)
result_unit (3989)	amns%tables(:)%result_unit (string) (7.9.7.1.4)
result_trans (3989)	amns%tables(:)%result_trans (integer) (7.9.7.1.3)
zmin (3989)	amns%tables(:)%zmin (vecint_type) (7.9.7.1.19)
zmax (3989)	amns%tables(:)%zmax (vecint_type) (7.9.7.1.19)
state_label (3989)	amns%tables(:)%state_label (vecstring_type) (7.9.7.1.20)
table (3989)	amns%tables(:)%table(:) (table) (7.9.7.1.441)
filled (3988)	amns%tables(:)%table(:)%filled (integer) (7.9.7.1.3)
table_0d (3988)	amns%tables(:)%table(:)%table_0d (float) (7.9.7.1.2)
table_1d (3988)	amns%tables(:)%table(:)%table_1d (vecflt_type) (7.9.7.1.18)
table_2d (3988)	amns%tables(:)%table(:)%table_2d (matflt_type) (7.9.7.1.15)
table_3d (3988)	amns%tables(:)%table(:)%table_3d (array3dflt_type) (7.9.7.1.7)
table_4d (3988)	amns%tables(:)%table(:)%table_4d (array4dflt_type) (7.9.7.1.9)
table_5d (3988)	amns%tables(:)%table(:)%table_5d (array5dflt_type) (7.9.7.1.10)
table_6d (3988)	amns%tables(:)%table(:)%table_6d (array6dflt_type) (7.9.7.1.11)
coord1_str (3988)	amns%tables(:)%table(:)%coord1_str (vecstring_type) (7.9.7.1.20)
coord2_str (3988)	amns%tables(:)%table(:)%coord2_str (vecstring_type) (7.9.7.1.20)
coord3_str (3988)	amns%tables(:)%table(:)%coord3_str (vecstring_type) (7.9.7.1.20)
coord4_str (3988)	amns%tables(:)%table(:)%coord4_str (vecstring_type) (7.9.7.1.20)
coord5_str (3988)	amns%tables(:)%table(:)%coord5_str (vecstring_type) (7.9.7.1.20)
coord6_str (3988)	amns%tables(:)%table(:)%coord6_str (vecstring_type) (7.9.7.1.20)
quality (3988)	amns%tables(:)%table(:)%quality (identifier) (7.9.7.1.256)
id (3803)	amns%tables(:)%table(:)%quality%id (string) (7.9.7.1.4)
flag (3803)	amns%tables(:)%table(:)%quality%flag (integer) (7.9.7.1.3)
description (3803)	amns%tables(:)%table(:)%quality%description (string) (7.9.7.1.4)
data_source (3989)	amns%tables(:)%data_source (string) (7.9.7.1.4)
data_provide (3989)	amns%tables(:)%data_provide (string) (7.9.7.1.4)
data_citation (3989)	amns%tables(:)%data_citation (string) (7.9.7.1.4)
tables_coord (3571)	amns%tables_coord(:) (tables_coord) (7.9.7.1.443)
coords (3990)	amns%tables_coord(:)%coords(:) (coords) (7.9.7.1.124)
coord (3671)	amns%tables_coord(:)%coords(:)%coord (vecflt_type) (7.9.7.1.18)
coord_label (3671)	amns%tables_coord(:)%coords(:)%coord_label (vecstring_type) (7.9.7.1.20)
extrap_type (3671)	amns%tables_coord(:)%coords(:)%extrap_type (vecint_type) (7.9.7.1.19)
interp_type (3671)	amns%tables_coord(:)%coords(:)%interp_type (integer) (7.9.7.1.3)
label (3671)	amns%tables_coord(:)%coords(:)%label (string) (7.9.7.1.4)
unit (3671)	amns%tables_coord(:)%coords(:)%unit (string) (7.9.7.1.4)
transform (3671)	amns%tables_coord(:)%coords(:)%transform (integer) (7.9.7.1.3)
spacing (3671)	amns%tables_coord(:)%coords(:)%spacing (integer) (7.9.7.1.3)
version_ind (3571)	amns%version_ind(:) (version_ind) (7.9.7.1.501)
description (4048)	amns%version_ind(:)%description (vecstring_type) (7.9.7.1.20)
releasedate (4048)	amns%version_ind(:)%releasedate (string) (7.9.7.1.4)

data_release (4048)	amns%version_ind(:)%data_release(:) (data_release) (7.9.7.1.154)
shot (3701)	amns%version_ind(:)%data_release(:)%shot (integer) (7.9.7.1.3)
run (3701)	amns%version_ind(:)%data_release(:)%run (integer) (7.9.7.1.3)
description (3701)	amns%version_ind(:)%data_release(:)%description (vecstring_type) (7.9.7.1.20)
codeparam (3571)	amns%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	amns%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	amns%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	amns%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	amns%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	amns%codeparam%output_flag (integer) (7.9.7.1.3)
time (3571)	amns%time (float) (7.9.7.1.2)

7.9.7.2.3 antennas

datainfo (3572)	antennas%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	antennas%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	antennas%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	antennas%datainfo%source (string) (7.9.7.1.4)
comment (3702)	antennas%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	antennas%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	antennas%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	antennas%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	antennas%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	antennas%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	antennas%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	antennas%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	antennas%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	antennas%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	antennas%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	antennas%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	antennas%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	antennas%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	antennas%datainfo%putinfo%rights (string) (7.9.7.1.4)
antenna_ec (3572)	antennas%antenna_ec(:) (antenna_ec) (7.9.7.1.75)
name (3622)	antennas%antenna_ec(:)%name (string) (7.9.7.1.4)
frequency (3622)	antennas%antenna_ec(:)%frequency (float) (7.9.7.1.2)
power (3622)	antennas%antenna_ec(:)%power (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_ec(:)%power%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_ec(:)%power%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_ec(:)%power%relerror (float) (7.9.7.1.2)
mode (3622)	antennas%antenna_ec(:)%mode (integer) (7.9.7.1.3)
position (3622)	antennas%antenna_ec(:)%position (rzphi0D) (7.9.7.1.385)
r (3932)	antennas%antenna_ec(:)%position%r (float) (7.9.7.1.2)
z (3932)	antennas%antenna_ec(:)%position%z (float) (7.9.7.1.2)
phi (3932)	antennas%antenna_ec(:)%position%phi (float) (7.9.7.1.2)
launchangles (3622)	antennas%antenna_ec(:)%launchangles (launchangles) (7.9.7.1.266)
alpha (3813)	antennas%antenna_ec(:)%launchangles%alpha (float) (7.9.7.1.2)
beta (3813)	antennas%antenna_ec(:)%launchangles%beta (float) (7.9.7.1.2)
beam (3622)	antennas%antenna_ec(:)%beam (rfbeam) (7.9.7.1.378)
spot (3925)	antennas%antenna_ec(:)%beam%spot (spot) (7.9.7.1.435)
size (3982)	antennas%antenna_ec(:)%beam%spot%size (vecflt_type) (7.9.7.1.18)
angle (3982)	antennas%antenna_ec(:)%beam%spot%angle (float) (7.9.7.1.2)
phaseellipse (3925)	antennas%antenna_ec(:)%beam%phaseellipse (phaseellipse) (7.9.7.1.350)
invcurvrad (3897)	antennas%antenna_ec(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.7.1.18)
angle (3897)	antennas%antenna_ec(:)%beam%phaseellipse%angle (float) (7.9.7.1.2)
codeparam (3622)	antennas%antenna_ec(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	antennas%antenna_ec(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	antennas%antenna_ec(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	antennas%antenna_ec(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	antennas%antenna_ec(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	antennas%antenna_ec(:)%codeparam%output_flag (integer) (7.9.7.1.3)

antenna_ic (3572)	antennas%antenna_ic(:) (antenna_ic) (7.9.7.1.76)
name (3623)	antennas%antenna_ic(:)%name (string) (7.9.7.1.4)
frequency (3623)	antennas%antenna_ic(:)%frequency (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_ic(:)%frequency%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_ic(:)%frequency%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_ic(:)%frequency%relerror (float) (7.9.7.1.2)
power (3623)	antennas%antenna_ic(:)%power (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_ic(:)%power%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_ic(:)%power%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_ic(:)%power%relerror (float) (7.9.7.1.2)
ntor (3623)	antennas%antenna_ic(:)%ntor (vecint_type) (7.9.7.1.19)
power_ntor (3623)	antennas%antenna_ic(:)%power_ntor (vecflt_type) (7.9.7.1.18)
setup (3623)	antennas%antenna_ic(:)%setup (antennaic_setup) (7.9.7.1.78)
straps (3625)	antennas%antenna_ic(:)%setup%straps(:) (straps) (7.9.7.1.437)
current (3984)	antennas%antenna_ic(:)%setup%straps(:)%current (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_ic(:)%setup%straps(:)%current%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_ic(:)%setup%straps(:)%current%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_ic(:)%setup%straps(:)%current%relerror (float) (7.9.7.1.2)
phase (3984)	antennas%antenna_ic(:)%setup%straps(:)%phase (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_ic(:)%setup%straps(:)%phase%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_ic(:)%setup%straps(:)%phase%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_ic(:)%setup%straps(:)%phase%relerror (float) (7.9.7.1.2)
phi_centre (3984)	antennas%antenna_ic(:)%setup%straps(:)%phi_centre (float) (7.9.7.1.2)
width (3984)	antennas%antenna_ic(:)%setup%straps(:)%width (float) (7.9.7.1.2)
dist2wall (3984)	antennas%antenna_ic(:)%setup%straps(:)%dist2wall (float) (7.9.7.1.2)
coord_strap (3984)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap (rz1D) (7.9.7.1.380)
r (3927)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%r (vecflt_type) (7.9.7.1.18)
z (3927)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%z (vecflt_type) (7.9.7.1.18)
current (3625)	antennas%antenna_ic(:)%setup%current (current) (7.9.7.1.151)
mpol (3698)	antennas%antenna_ic(:)%setup%current%mpol (vecint_type) (7.9.7.1.19)
ntor (3698)	antennas%antenna_ic(:)%setup%current%ntor (vecint_type) (7.9.7.1.19)
spectrum (3698)	antennas%antenna_ic(:)%setup%current%spectrum (exp1D) (7.9.7.1.218)
value (3765)	antennas%antenna_ic(:)%setup%current%spectrum%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	antennas%antenna_ic(:)%setup%current%spectrum%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	antennas%antenna_ic(:)%setup%current%spectrum%relerror (vecflt_type) (7.9.7.1.18)
rz_reference (3698)	antennas%antenna_ic(:)%setup%current%rz_reference (rz0D) (7.9.7.1.379)
r (3926)	antennas%antenna_ic(:)%setup%current%rz_reference%r (float) (7.9.7.1.2)
z (3926)	antennas%antenna_ic(:)%setup%current%rz_reference%z (float) (7.9.7.1.2)
codeparam (3623)	antennas%antenna_ic(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	antennas%antenna_ic(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	antennas%antenna_ic(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	antennas%antenna_ic(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	antennas%antenna_ic(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	antennas%antenna_ic(:)%codeparam%output_flag (integer) (7.9.7.1.3)
antenna_lh (3572)	antennas%antenna_lh(:) (antenna_lh) (7.9.7.1.77)
name (3624)	antennas%antenna_lh(:)%name (string) (7.9.7.1.4)
frequency (3624)	antennas%antenna_lh(:)%frequency (float) (7.9.7.1.2)
power (3624)	antennas%antenna_lh(:)%power (exp0D) (7.9.7.1.217)
value (3764)	antennas%antenna_lh(:)%power%value (float) (7.9.7.1.2)
abserror (3764)	antennas%antenna_lh(:)%power%abserror (float) (7.9.7.1.2)
relerror (3764)	antennas%antenna_lh(:)%power%relerror (float) (7.9.7.1.2)
n_par (3624)	antennas%antenna_lh(:)%n_par (float) (7.9.7.1.2)
position (3624)	antennas%antenna_lh(:)%position (rzphi0D) (7.9.7.1.385)
r (3932)	antennas%antenna_lh(:)%position%r (float) (7.9.7.1.2)
z (3932)	antennas%antenna_lh(:)%position%z (float) (7.9.7.1.2)
phi (3932)	antennas%antenna_lh(:)%position%phi (float) (7.9.7.1.2)
setup (3624)	antennas%antenna_lh(:)%setup (antennalh_setup) (7.9.7.1.79)
modules (3626)	antennas%antenna_lh(:)%setup%modules (modules) (7.9.7.1.296)
nma_theta (3843)	antennas%antenna_lh(:)%setup%modules%nma_theta (integer) (7.9.7.1.3)
nma_phi (3843)	antennas%antenna_lh(:)%setup%modules%nma_phi (integer) (7.9.7.1.3)
ima_theta (3843)	antennas%antenna_lh(:)%setup%modules%ima_theta (vecint_type) (7.9.7.1.19)

ima_phi (3843)	antennas%antenna_lh(:)%setup%modules%ima_phi (vecint_type) (7.9.7.1.19)
sm_theta (3843)	antennas%antenna_lh(:)%setup%modules%sm_theta (float) (7.9.7.1.2)
amplitude (3843)	antennas%antenna_lh(:)%setup%modules%amplitude (exp1D) (7.9.7.1.218)
value (3765)	antennas%antenna_lh(:)%setup%modules%amplitude%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	antennas%antenna_lh(:)%setup%modules%amplitude%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	antennas%antenna_lh(:)%setup%modules%amplitude%relerror (vecflt_type) (7.9.7.1.18)
phase (3843)	antennas%antenna_lh(:)%setup%modules%phase (exp1D) (7.9.7.1.218)
value (3765)	antennas%antenna_lh(:)%setup%modules%phase%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	antennas%antenna_lh(:)%setup%modules%phase%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	antennas%antenna_lh(:)%setup%modules%phase%relerror (vecflt_type) (7.9.7.1.18)
waveguides (3843)	antennas%antenna_lh(:)%setup%modules%waveguides (waveguides) (7.9.7.1.518)
nwm_theta (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_theta (integer) (7.9.7.1.3)
nwm_phi (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_phi (integer) (7.9.7.1.3)
mask (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%mask (vecint_type) (7.9.7.1.19)
npwbm_phi (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%npwbm_phi (integer) (7.9.7.1.3)
npwe_phi (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%npwe_phi (integer) (7.9.7.1.3)
sw_theta (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%sw_theta (float) (7.9.7.1.2)
hw_theta (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%hw_theta (float) (7.9.7.1.2)
bwa (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%bwa (float) (7.9.7.1.2)
biwp (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%biwp (float) (7.9.7.1.2)
bewp (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%bewp (float) (7.9.7.1.2)
e_phi (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%e_phi (vecflt_type) (7.9.7.1.18)
scl (4065)	antennas%antenna_lh(:)%setup%modules%waveguides%scl (vecflt_type) (7.9.7.1.18)
plasmaedge (3624)	antennas%antenna_lh(:)%plasmaedge (plasmaedge) (7.9.7.1.353)
npoints (3900)	antennas%antenna_lh(:)%plasmaedge%npoints (integer) (7.9.7.1.3)
distance (3900)	antennas%antenna_lh(:)%plasmaedge%distance (vecflt_type) (7.9.7.1.18)
density (3900)	antennas%antenna_lh(:)%plasmaedge%density (vecflt_type) (7.9.7.1.18)
beam (3624)	antennas%antenna_lh(:)%beam (rfbeam) (7.9.7.1.378)
spot (3925)	antennas%antenna_lh(:)%beam%spot (spot) (7.9.7.1.435)
size (3982)	antennas%antenna_lh(:)%beam%spot%size (vecflt_type) (7.9.7.1.18)
angle (3982)	antennas%antenna_lh(:)%beam%spot%angle (float) (7.9.7.1.2)
phaseellipse (3925)	antennas%antenna_lh(:)%beam%phaseellipse (phaseellipse) (7.9.7.1.350)
invcurvrad (3897)	antennas%antenna_lh(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.7.1.18)
angle (3897)	antennas%antenna_lh(:)%beam%phaseellipse%angle (float) (7.9.7.1.2)
codeparam (3624)	antennas%antenna_lh(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	antennas%antenna_lh(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	antennas%antenna_lh(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	antennas%antenna_lh(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	antennas%antenna_lh(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	antennas%antenna_lh(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3572)	antennas%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	antennas%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	antennas%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	antennas%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	antennas%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	antennas%codeparam%output_flag (integer) (7.9.7.1.3)
time (3572)	antennas%time (float) (7.9.7.1.2)

7.9.7.2.4 bb_shield

datainfo (3573)	bb_shield%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	bb_shield%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	bb_shield%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	bb_shield%datainfo%source (string) (7.9.7.1.4)
comment (3702)	bb_shield%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	bb_shield%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	bb_shield%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	bb_shield%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	bb_shield%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	bb_shield%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	bb_shield%datainfo%whatref%machine (string) (7.9.7.1.4)

shot (4074)	bb_shield%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	bb_shield%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	bb_shield%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	bb_shield%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	bb_shield%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	bb_shield%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	bb_shield%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	bb_shield%datainfo%putinfo%rights (string) (7.9.7.1.4)
type (3573)	bb_shield%type (string) (7.9.7.1.4)
limits (3573)	bb_shield%limits (limits) (7.9.7.1.274)
fw_dpa (3821)	bb_shield%limits%fw_dpa (float) (7.9.7.1.2)
he_appm (3821)	bb_shield%limits%he_appm (float) (7.9.7.1.2)
ins_dose (3821)	bb_shield%limits%ins_dose (float) (7.9.7.1.2)
fn_flu (3821)	bb_shield%limits%fn_flu (float) (7.9.7.1.2)
dpa_cu (3821)	bb_shield%limits%dpa_cu (float) (7.9.7.1.2)
wp_nh (3821)	bb_shield%limits%wp_nh (float) (7.9.7.1.2)
li6_enrich (3573)	bb_shield%li6_enrich (float) (7.9.7.1.2)
geom (3573)	bb_shield%geom (geom) (7.9.7.1.247)
dr_bb_sh_ib (3794)	bb_shield%geom%dr_bb_sh_ib (float) (7.9.7.1.2)
dr_sh_vv_ib (3794)	bb_shield%geom%dr_sh_vv_ib (float) (7.9.7.1.2)
dr_bb_sh_ob (3794)	bb_shield%geom%dr_bb_sh_ob (float) (7.9.7.1.2)
dr_sh_vv_ob (3794)	bb_shield%geom%dr_sh_vv_ob (float) (7.9.7.1.2)
dr_bb__sh_ib (3794)	bb_shield%geom%dr_bb__sh_ib (float) (7.9.7.1.2)
dr_bb__sh_ob (3794)	bb_shield%geom%dr_bb__sh_ob (float) (7.9.7.1.2)
delta_int (3794)	bb_shield%geom%delta_int (float) (7.9.7.1.2)
neut_results (3573)	bb_shield%neut_results (neut_results) (7.9.7.1.310)
tbr_bk (3857)	bb_shield%neut_results%tbr_bk (float) (7.9.7.1.2)
tbr_bk_inb (3857)	bb_shield%neut_results%tbr_bk_inb (float) (7.9.7.1.2)
tbr_bk_outb (3857)	bb_shield%neut_results%tbr_bk_outb (float) (7.9.7.1.2)
me_bk (3857)	bb_shield%neut_results%me_bk (float) (7.9.7.1.2)
me_shield (3857)	bb_shield%neut_results%me_shield (float) (7.9.7.1.2)
he_appm_res (3857)	bb_shield%neut_results%he_appm_res (float) (7.9.7.1.2)
ins_dose_max (3857)	bb_shield%neut_results%ins_dose_max (float) (7.9.7.1.2)
fn_flu_max (3857)	bb_shield%neut_results%fn_flu_max (float) (7.9.7.1.2)
dpa_cu_max (3857)	bb_shield%neut_results%dpa_cu_max (float) (7.9.7.1.2)
fn_flux_bz (3857)	bb_shield%neut_results%fn_flux_bz (float) (7.9.7.1.2)
fn_flux_bp (3857)	bb_shield%neut_results%fn_flux_bp (float) (7.9.7.1.2)
fn_flux_man (3857)	bb_shield%neut_results%fn_flux_man (float) (7.9.7.1.2)
fn_flux_sh (3857)	bb_shield%neut_results%fn_flux_sh (float) (7.9.7.1.2)
p_nh_bk (3857)	bb_shield%neut_results%p_nh_bk (float) (7.9.7.1.2)
p_nh_sh (3857)	bb_shield%neut_results%p_nh_sh (float) (7.9.7.1.2)
shield (3573)	bb_shield%shield (shield) (7.9.7.1.419)
inboard (3966)	bb_shield%shield%inboard (shield_specs) (7.9.7.1.420)
nmat (3967)	bb_shield%shield%inboard%nmat (integer) (7.9.7.1.3)
composition (3967)	bb_shield%shield%inboard%composition (vecflt_type) (7.9.7.1.18)
r1 (3967)	bb_shield%shield%inboard%r1 (float) (7.9.7.1.2)
r2 (3967)	bb_shield%shield%inboard%r2 (float) (7.9.7.1.2)
mass (3967)	bb_shield%shield%inboard%mass (float) (7.9.7.1.2)
outboard (3966)	bb_shield%shield%outboard (shield_specs) (7.9.7.1.420)
nmat (3967)	bb_shield%shield%outboard%nmat (integer) (7.9.7.1.3)
composition (3967)	bb_shield%shield%outboard%composition (vecflt_type) (7.9.7.1.18)
r1 (3967)	bb_shield%shield%outboard%r1 (float) (7.9.7.1.2)
r2 (3967)	bb_shield%shield%outboard%r2 (float) (7.9.7.1.2)
mass (3967)	bb_shield%shield%outboard%mass (float) (7.9.7.1.2)
bb (3573)	bb_shield%bb (bb) (7.9.7.1.81)
nb_bb (3628)	bb_shield%bb%nb_bb (float) (7.9.7.1.2)
nb_bb_polcut (3628)	bb_shield%bb%nb_bb_polcut (float) (7.9.7.1.2)
teta_bb (3628)	bb_shield%bb%teta_bb (float) (7.9.7.1.2)
tbr (3628)	bb_shield%bb%tbr (float) (7.9.7.1.2)
neutro_resul (3628)	bb_shield%bb%neutro_resul (neutro_resul) (7.9.7.1.312)
nwl_max (3859)	bb_shield%bb%neutro_resul%nwl_max (float) (7.9.7.1.2)

nwl_pol_prof (3859)	bb_shield%bb%neutro_resul%nwl_pol_prof (vecflt_type) (7.9.7.1.18)
inboard (3628)	bb_shield%bb%inboard (bb_specs) (7.9.7.1.84)
nbb (3631)	bb_shield%bb%inboard%nbb (float) (7.9.7.1.2)
r1 (3631)	bb_shield%bb%inboard%r1 (float) (7.9.7.1.2)
r2 (3631)	bb_shield%bb%inboard%r2 (float) (7.9.7.1.2)
dimension (3631)	bb_shield%bb%inboard%dimension (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%bb%inboard%dimension%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%bb%inboard%dimension%toroidal (vecflt_type) (7.9.7.1.18)
poloidal (3629)	bb_shield%bb%inboard%dimension%poloidal (vecflt_type) (7.9.7.1.18)
outboard (3628)	bb_shield%bb%outboard (bb_specs) (7.9.7.1.84)
nbb (3631)	bb_shield%bb%outboard%nbb (float) (7.9.7.1.2)
r1 (3631)	bb_shield%bb%outboard%r1 (float) (7.9.7.1.2)
r2 (3631)	bb_shield%bb%outboard%r2 (float) (7.9.7.1.2)
dimension (3631)	bb_shield%bb%outboard%dimension (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%bb%outboard%dimension%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%bb%outboard%dimension%toroidal (vecflt_type) (7.9.7.1.18)
poloidal (3629)	bb_shield%bb%outboard%dimension%poloidal (vecflt_type) (7.9.7.1.18)
hcll (3573)	bb_shield%hcll (hcll) (7.9.7.1.252)
mat_lim (3799)	bb_shield%hcll%mat_lim (mat_lim) (7.9.7.1.282)
cool_t_lim (3829)	bb_shield%hcll%mat_lim%cool_t_lim (float) (7.9.7.1.2)
steel_t_lim (3829)	bb_shield%hcll%mat_lim%steel_t_lim (float) (7.9.7.1.2)
lipb_t_lim (3829)	bb_shield%hcll%mat_lim%lipb_t_lim (float) (7.9.7.1.2)
hcll_bb (3799)	bb_shield%hcll%hcll_bb (hcll_bb) (7.9.7.1.253)
bb_lifetime (3800)	bb_shield%hcll%hcll_bb%bb_lifetime (float) (7.9.7.1.2)
he_inl_t (3800)	bb_shield%hcll%hcll_bb%he_inl_t (float) (7.9.7.1.2)
he_fr (3800)	bb_shield%hcll%hcll_bb%he_fr (float) (7.9.7.1.2)
he_inl_p (3800)	bb_shield%hcll%hcll_bb%he_inl_p (float) (7.9.7.1.2)
loca_des_p (3800)	bb_shield%hcll%hcll_bb%loca_des_p (float) (7.9.7.1.2)
he_dp (3800)	bb_shield%hcll%hcll_bb%he_dp (float) (7.9.7.1.2)
lipb_dp (3800)	bb_shield%hcll%hcll_bb%lipb_dp (float) (7.9.7.1.2)
react (3800)	bb_shield%hcll%hcll_bb%react (react) (7.9.7.1.366)
he_fr (3913)	bb_shield%hcll%hcll_bb%react%he_fr (float) (7.9.7.1.2)
lp_fr (3913)	bb_shield%hcll%hcll_bb%react%lp_fr (float) (7.9.7.1.2)
he_dp (3913)	bb_shield%hcll%hcll_bb%react%he_dp (float) (7.9.7.1.2)
lipb_dp (3913)	bb_shield%hcll%hcll_bb%react%lipb_dp (float) (7.9.7.1.2)
inboard (3800)	bb_shield%hcll%hcll_bb%inboard (hcllbb_specs) (7.9.7.1.254)
mass (3801)	bb_shield%hcll%hcll_bb%inboard%mass (vecflt_type) (7.9.7.1.18)
dr (3801)	bb_shield%hcll%hcll_bb%inboard%dr (vecflt_type) (7.9.7.1.18)
mat (3801)	bb_shield%hcll%hcll_bb%inboard%mat (vecflt_type) (7.9.7.1.18)
composition (3801)	bb_shield%hcll%hcll_bb%inboard%composition (matflt_type) (7.9.7.1.15)
mod_geom (3801)	bb_shield%hcll%hcll_bb%inboard%mod_geom (bb_geometry) (7.9.7.1.83)
dr_fw (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fw (float) (7.9.7.1.2)
dr_bz (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bz (float) (7.9.7.1.2)
dr_bp (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp (float) (7.9.7.1.2)
dr_bp_plates (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.7.1.18)
dr_bp_he (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_he (vecflt_type) (7.9.7.1.18)
dr_man (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_man (float) (7.9.7.1.2)
dt_sw (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_sw (float) (7.9.7.1.2)
dt_bz (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_bz (float) (7.9.7.1.2)
dp_bz (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dp_bz (float) (7.9.7.1.2)
top_cap_dim (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.7.1.18)
poloidal (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.7.1.18)
bot_cap_dim (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.7.1.18)
poloidal (3629)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.7.1.18)
a_fw_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_fw_ch (float) (7.9.7.1.2)

b_fw_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_fw_ch (float) (7.9.7.1.2)
td_tc_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_tc_ch (float) (7.9.7.1.2)
rd_tc_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_tc_ch (float) (7.9.7.1.2)
td_bc_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_bc_ch (float) (7.9.7.1.2)
rd_bc_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_bc_ch (float) (7.9.7.1.2)
n_fw_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_ch (float) (7.9.7.1.2)
n_fw_circ (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_circ (float) (7.9.7.1.2)
a_sg_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_sg_ch (float) (7.9.7.1.2)
b_sg_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_sg_ch (float) (7.9.7.1.2)
n_sg_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_sg_ch (float) (7.9.7.1.2)
sg_thick (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_thick (float) (7.9.7.1.2)
sg_weld (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_weld (float) (7.9.7.1.2)
sg_in_out (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_in_out (float) (7.9.7.1.2)
r_sg_cp (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%r_sg_cp (float) (7.9.7.1.2)
cp_tor_gap (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_tor_gap (float) (7.9.7.1.2)
a_cp_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_cp_ch (float) (7.9.7.1.2)
b_cp_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_cp_ch (float) (7.9.7.1.2)
n_cp_ch (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_ch (float) (7.9.7.1.2)
cp_thick (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_thick (float) (7.9.7.1.2)
n_pol_bu (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_pol_bu (float) (7.9.7.1.2)
n_tor_bu (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_tor_bu (float) (7.9.7.1.2)
n_cp_bu (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_bu (float) (7.9.7.1.2)
cp_in_out (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_in_out (float) (7.9.7.1.2)
he_man_tck (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_man_tck (float) (7.9.7.1.2)
man_tck (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%man_tck (float) (7.9.7.1.2)
pbli_bptb_od (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_od (float) (7.9.7.1.2)
pbli_bptb_id (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_id (float) (7.9.7.1.2)
he_bptb_od (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_od (float) (7.9.7.1.2)
he_bptb_id (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_id (float) (7.9.7.1.2)
dr_max_fw (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_max_fw (float) (7.9.7.1.2)
dr_fwpl (3630)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fwpl (float) (7.9.7.1.2)
mod_neutr (3801)	bb_shield%hcll%hcll_bb%inboard%mod_neutr (mode_neutr) (7.9.7.1.292)
r (3839)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%r (vecflt_type) (7.9.7.1.18)
pd_rad (3839)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pd_rad (vecflt_type) (7.9.7.1.18)
lipb_coef_pd (3839)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.7.1.18)
steel_coef_pd (3839)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.7.1.18)
pow_exchange (3839)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange (power_exchange) (7.9.7.1.358)
dep_pow (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.7.1.18)
dep_fw (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.7.1.2)
dep_sg (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.7.1.2)
dep_cp (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.7.1.2)
dep_lp (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.7.1.2)
dep_man (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_man (float) (7.9.7.1.2)
dep_pl (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.7.1.2)
rec_fw (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.7.1.2)
rec_sg (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.7.1.2)
rec_cp (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.7.1.2)
pow_dens_fw (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.7.1.2)
pow_dens_bz (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.7.1.2)
pow_dens_bz10 (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.7.1.2)
pow_dens_bp (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.7.1.2)
pow_dens_man (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.7.1.2)
pow_dens_sh (3905)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.7.1.2)
mod_therm (3801)	bb_shield%hcll%hcll_bb%inboard%mod_therm (mode_therm) (7.9.7.1.294)
he_fr (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_fr (float) (7.9.7.1.2)
perc_bp_he (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%perc_bp_he (float) (7.9.7.1.2)

he_out_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_out_t (float) (7.9.7.1.2)
fw_he_out_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_he_out_t (float) (7.9.7.1.2)
sg_he_out_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_he_out_t (float) (7.9.7.1.2)
cp_he_out_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_he_out_t (float) (7.9.7.1.2)
fw_st_max_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_st_max_t (float) (7.9.7.1.2)
sg_st_max_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_st_max_t (float) (7.9.7.1.2)
cp_st_max_t (3841)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_st_max_t (float) (7.9.7.1.2)
mod_th_hyd (3801)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd (mode_th_hyd) (7.9.7.1.293)
fw_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%fw_dp_he (float) (7.9.7.1.2)
sg_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%sg_dp_he (float) (7.9.7.1.2)
cp_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%cp_dp_he (float) (7.9.7.1.2)
man_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%man_dp_he (float) (7.9.7.1.2)
tot_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%tot_dp_he (float) (7.9.7.1.2)
bp_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%bp_dp_he (float) (7.9.7.1.2)
circ_dp_he (3840)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%circ_dp_he (float) (7.9.7.1.2)
mod_mech (3801)	bb_shield%hcll%hcll_bb%inboard%mod_mech (mode_mech) (7.9.7.1.291)
fw_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_ts_mg (float) (7.9.7.1.2)
fw_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_bd_mg (float) (7.9.7.1.2)
sg_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_ts_mg (float) (7.9.7.1.2)
sg_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_bd_mg (float) (7.9.7.1.2)
cp_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_ts_mg (float) (7.9.7.1.2)
cp_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_bd_mg (float) (7.9.7.1.2)
min_ts_mg_ac (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_ts_mg_ac (float) (7.9.7.1.2)
min_bd_mg_ac (3838)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_bd_mg_ac (float) (7.9.7.1.2)
mod_lipb (3801)	bb_shield%hcll%hcll_bb%inboard%mod_lipb (mode_lipb) (7.9.7.1.290)
lp_rec_day (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_rec_day (float) (7.9.7.1.2)
bb_lp_fr (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.7.1.18)
lp_inl_p (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_inl_p (float) (7.9.7.1.2)
bu_dp_lp (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_dp_lp (float) (7.9.7.1.2)
man_dp_lp (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%man_dp_lp (float) (7.9.7.1.2)
tot_dp_lp (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%tot_dp_lp (float) (7.9.7.1.2)
bu_lp_ave_t (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_ave_t (float) (7.9.7.1.2)
bu_lp_max_t (3837)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_max_t (float) (7.9.7.1.2)
mod_tritium (3801)	bb_shield%hcll%hcll_bb%inboard%mod_tritium (mode_tritium) (7.9.7.1.295)
t_conc_lipb (3842)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_lipb (float) (7.9.7.1.2)
t_conc_he (3842)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_he (float) (7.9.7.1.2)
outboard (3800)	bb_shield%hcll%hcll_bb%outboard (hcllbb_specs) (7.9.7.1.254)
mass (3801)	bb_shield%hcll%hcll_bb%outboard%mass (vecflt_type) (7.9.7.1.18)
dr (3801)	bb_shield%hcll%hcll_bb%outboard%dr (vecflt_type) (7.9.7.1.18)
mat (3801)	bb_shield%hcll%hcll_bb%outboard%mat (vecflt_type) (7.9.7.1.18)
composition (3801)	bb_shield%hcll%hcll_bb%outboard%composition (matflt_type) (7.9.7.1.15)
mod_geom (3801)	bb_shield%hcll%hcll_bb%outboard%mod_geom (bb_geometry) (7.9.7.1.83)
dr_fw (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fw (float) (7.9.7.1.2)
dr_bz (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bz (float) (7.9.7.1.2)
dr_bp (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp (float) (7.9.7.1.2)
dr_bp_plates (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.7.1.18)
dr_bp_he (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_he (vecflt_type) (7.9.7.1.18)
dr_man (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_man (float) (7.9.7.1.2)
dt_sw (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_sw (float) (7.9.7.1.2)
dt_bz (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_bz (float) (7.9.7.1.2)
dp_bz (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dp_bz (float) (7.9.7.1.2)
top_cap_dim (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.7.1.18)
poloidal (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.7.1.18)
bot_cap_dim (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.7.1.82)
radial (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.7.1.18)
toroidal (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.7.1.18)

poloidal (3629)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.7.1.18)
a_fw_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_fw_ch (float) (7.9.7.1.2)
b_fw_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_fw_ch (float) (7.9.7.1.2)
td_tc_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_tc_ch (float) (7.9.7.1.2)
rd_tc_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_tc_ch (float) (7.9.7.1.2)
td_bc_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_bc_ch (float) (7.9.7.1.2)
rd_bc_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_bc_ch (float) (7.9.7.1.2)
n_fw_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_ch (float) (7.9.7.1.2)
n_fw_circ (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_circ (float) (7.9.7.1.2)
a_sg_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_sg_ch (float) (7.9.7.1.2)
b_sg_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_sg_ch (float) (7.9.7.1.2)
n_sg_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_sg_ch (float) (7.9.7.1.2)
sg_thick (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_thick (float) (7.9.7.1.2)
sg_weld (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_weld (float) (7.9.7.1.2)
sg_in_out (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_in_out (float) (7.9.7.1.2)
r_sg_cp (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%r_sg_cp (float) (7.9.7.1.2)
cp_tor_gap (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_tor_gap (float) (7.9.7.1.2)
a_cp_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_cp_ch (float) (7.9.7.1.2)
b_cp_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_cp_ch (float) (7.9.7.1.2)
n_cp_ch (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_ch (float) (7.9.7.1.2)
cp_thick (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_thick (float) (7.9.7.1.2)
n_pol_bu (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_pol_bu (float) (7.9.7.1.2)
n_tor_bu (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_tor_bu (float) (7.9.7.1.2)
n_cp_bu (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_bu (float) (7.9.7.1.2)
cp_in_out (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_in_out (float) (7.9.7.1.2)
he_man_tck (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_man_tck (float) (7.9.7.1.2)
man_tck (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%man_tck (float) (7.9.7.1.2)
pbli_bptb_od (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_od (float) (7.9.7.1.2)
pbli_bptb_id (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_id (float) (7.9.7.1.2)
he_bptb_od (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_od (float) (7.9.7.1.2)
he_bptb_id (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_id (float) (7.9.7.1.2)
dr_max_fw (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_max_fw (float) (7.9.7.1.2)
dr_fwpl (3630)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fwpl (float) (7.9.7.1.2)
mod_neutr (3801)	bb_shield%hcll%hcll_bb%outboard%mod_neutr (mode_neutr) (7.9.7.1.292)
r (3839)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%r (vecflt_type) (7.9.7.1.18)
pd_rad (3839)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pd_rad (vecflt_type) (7.9.7.1.18)
lipb_coef_pd (3839)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.7.1.18)
steel_coef_pd (3839)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.7.1.18)
pow_exchange (3839)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange (power_exchange) (7.9.7.1.358)
dep_pow (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.7.1.18)
dep_fw (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.7.1.2)
dep_sg (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.7.1.2)
dep_cp (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.7.1.2)
dep_lp (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.7.1.2)
dep_man (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_man (float) (7.9.7.1.2)
dep_pl (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.7.1.2)
rec_fw (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.7.1.2)
rec_sg (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.7.1.2)
rec_cp (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.7.1.2)
pow_dens_fw (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.7.1.2)
pow_dens_bz (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.7.1.2)
pow_dens_bz10 (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.7.1.2)
pow_dens_bp (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.7.1.2)
pow_dens_man (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.7.1.2)
pow_dens_sh (3905)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.7.1.2)

mod_therm (3801)	bb_shield%hcll%hcll_bb%outboard%mod_therm (mode_therm) (7.9.7.1.294)
he_fr (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_fr (float) (7.9.7.1.2)
perc_bp_he (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%perc_bp_he (float) (7.9.7.1.2)
he_out_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_out_t (float) (7.9.7.1.2)
fw_he_out_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_he_out_t (float) (7.9.7.1.2)
sg_he_out_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_he_out_t (float) (7.9.7.1.2)
cp_he_out_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_he_out_t (float) (7.9.7.1.2)
fw_st_max_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_st_max_t (float) (7.9.7.1.2)
sg_st_max_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_st_max_t (float) (7.9.7.1.2)
cp_st_max_t (3841)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_st_max_t (float) (7.9.7.1.2)
mod_th_hyd (3801)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd (mode_th_hyd) (7.9.7.1.293)
fw_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%fw_dp_he (float) (7.9.7.1.2)
sg_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%sg_dp_he (float) (7.9.7.1.2)
cp_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%cp_dp_he (float) (7.9.7.1.2)
man_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%man_dp_he (float) (7.9.7.1.2)
tot_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%tot_dp_he (float) (7.9.7.1.2)
bp_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%bp_dp_he (float) (7.9.7.1.2)
circ_dp_he (3840)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%circ_dp_he (float) (7.9.7.1.2)
mod_mech (3801)	bb_shield%hcll%hcll_bb%outboard%mod_mech (mode_mech) (7.9.7.1.291)
fw_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_ts_mg (float) (7.9.7.1.2)
fw_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_bd_mg (float) (7.9.7.1.2)
sg_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_ts_mg (float) (7.9.7.1.2)
sg_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_bd_mg (float) (7.9.7.1.2)
cp_min_ts_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_ts_mg (float) (7.9.7.1.2)
cp_min_bd_mg (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_bd_mg (float) (7.9.7.1.2)
min_ts_mg_ac (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_ts_mg_ac (float) (7.9.7.1.2)
min_bd_mg_ac (3838)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_bd_mg_ac (float) (7.9.7.1.2)
mod_lipb (3801)	bb_shield%hcll%hcll_bb%outboard%mod_lipb (mode_lipb) (7.9.7.1.290)
lp_rec_day (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_rec_day (float) (7.9.7.1.2)
bb_lp_fr (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.7.1.18)
lp_inl_p (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_inl_p (float) (7.9.7.1.2)
bu_dp_lp (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_dp_lp (float) (7.9.7.1.2)
man_dp_lp (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%man_dp_lp (float) (7.9.7.1.2)
tot_dp_lp (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%tot_dp_lp (float) (7.9.7.1.2)
bu_lp_ave_t (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_ave_t (float) (7.9.7.1.2)
bu_lp_max_t (3837)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_max_t (float) (7.9.7.1.2)
mod_tritium (3801)	bb_shield%hcll%hcll_bb%outboard%mod_tritium (mode_tritium) (7.9.7.1.295)
t_conc_lipb (3842)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_lipb (float) (7.9.7.1.2)
t_conc_he (3842)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_he (float) (7.9.7.1.2)
codeparam (3573)	bb_shield%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	bb_shield%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	bb_shield%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	bb_shield%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	bb_shield%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	bb_shield%codeparam%output_flag (integer) (7.9.7.1.3)
time (3573)	bb_shield%time (float) (7.9.7.1.2)

7.9.7.2.5 compositionc

datainfo (3574)	compositionc%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	compositionc%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	compositionc%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	compositionc%datainfo%source (string) (7.9.7.1.4)
comment (3702)	compositionc%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	compositionc%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	compositionc%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	compositionc%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	compositionc%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	compositionc%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	compositionc%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	compositionc%datainfo%whatref%shot (integer) (7.9.7.1.3)

run (4074)	compositionc%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	compositionc%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	compositionc%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	compositionc%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	compositionc%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	compositionc%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	compositionc%datainfo%putinfo%rights (string) (7.9.7.1.4)
compositions (3574)	compositionc%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	compositionc%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	compositionc%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	compositionc%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	compositionc%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	compositionc%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	compositionc%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	compositionc%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	compositionc%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	compositionc%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	compositionc%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	compositionc%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	compositionc%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	compositionc%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	compositionc%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	compositionc%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	compositionc%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	compositionc%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	compositionc%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	compositionc%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	compositionc%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	compositionc%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	compositionc%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	compositionc%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	compositionc%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	compositionc%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	compositionc%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	compositionc%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	compositionc%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	compositionc%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	compositionc%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	compositionc%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	compositionc%compositions%signature%description (string) (7.9.7.1.4)
codeparam (3574)	compositionc%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	compositionc%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	compositionc%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	compositionc%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	compositionc%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	compositionc%codeparam%output_flag (integer) (7.9.7.1.3)
time (3574)	compositionc%time (float) (7.9.7.1.2)

7.9.7.2.6 coredelta

datainfo (3575)	coredelta%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coredelta%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coredelta%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coredelta%datainfo%source (string) (7.9.7.1.4)
comment (3702)	coredelta%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	coredelta%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coredelta%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coredelta%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	coredelta%datainfo%whatref (whatref) (7.9.7.1.527)

user (4074)	coredelta%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coredelta%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coredelta%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coredelta%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coredelta%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coredelta%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coredelta%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coredelta%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coredelta%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coredelta%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3575)	coredelta%composition (composition) (7.9.7.1.116)
amn (3663)	coredelta%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	coredelta%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	coredelta%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	coredelta%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	coredelta%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3575)	coredelta%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coredelta%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coredelta%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coredelta%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coredelta%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coredelta%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coredelta%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coredelta%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3575)	coredelta%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coredelta%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coredelta%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coredelta%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coredelta%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coredelta%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coredelta%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coredelta%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coredelta%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coredelta%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coredelta%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coredelta%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coredelta%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coredelta%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coredelta%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coredelta%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coredelta%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coredelta%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coredelta%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coredelta%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coredelta%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coredelta%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coredelta%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coredelta%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coredelta%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coredelta%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	coredelta%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coredelta%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coredelta%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coredelta%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	coredelta%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	coredelta%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coredelta%compositions%signature%description (string) (7.9.7.1.4)
values (3575)	coredelta%values(:) (coredelta_values) (7.9.7.1.125)
deltaid (3672)	coredelta%values(:)%deltaid (identifier) (7.9.7.1.256)

id (3803)	coredelta%values(:)%deltaid%id (string) (7.9.7.1.4)
flag (3803)	coredelta%values(:)%deltaid%flag (integer) (7.9.7.1.3)
description (3803)	coredelta%values(:)%deltaid%description (string) (7.9.7.1.4)
rho_tor (3672)	coredelta%values(:)%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3672)	coredelta%values(:)%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3672)	coredelta%values(:)%psi (vecflt_type) (7.9.7.1.18)
volume (3672)	coredelta%values(:)%volume (vecflt_type) (7.9.7.1.18)
area (3672)	coredelta%values(:)%area (vecflt_type) (7.9.7.1.18)
delta_psi (3672)	coredelta%values(:)%delta_psi (vecflt_type) (7.9.7.1.18)
delta_te (3672)	coredelta%values(:)%delta_te (vecflt_type) (7.9.7.1.18)
delta_ti (3672)	coredelta%values(:)%delta_ti (matflt_type) (7.9.7.1.15)
delta_ne (3672)	coredelta%values(:)%delta_ne (vecflt_type) (7.9.7.1.18)
delta_ni (3672)	coredelta%values(:)%delta_ni (matflt_type) (7.9.7.1.15)
impurity (3672)	coredelta%values(:)%impurity(:) (coredelta_values_impurity) (7.9.7.1.126)
delta_tz (3673)	coredelta%values(:)%impurity(:)%delta_tz (matflt_type) (7.9.7.1.15)
delta_nz (3673)	coredelta%values(:)%impurity(:)%delta_nz (matflt_type) (7.9.7.1.15)
delta_vtor (3672)	coredelta%values(:)%delta_vtor (matflt_type) (7.9.7.1.15)
codeparam (3672)	coredelta%values(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coredelta%values(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coredelta%values(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coredelta%values(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coredelta%values(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coredelta%values(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3575)	coredelta%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coredelta%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coredelta%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coredelta%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coredelta%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coredelta%codeparam%output_flag (integer) (7.9.7.1.3)
time (3575)	coredelta%time (float) (7.9.7.1.2)

7.9.7.2.7 corefast

datainfo (3576)	corefast%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	corefast%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	corefast%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	corefast%datainfo%source (string) (7.9.7.1.4)
comment (3702)	corefast%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	corefast%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	corefast%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	corefast%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	corefast%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	corefast%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	corefast%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	corefast%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	corefast%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	corefast%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	corefast%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	corefast%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	corefast%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	corefast%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	corefast%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3576)	corefast%composition (composition) (7.9.7.1.116)
amn (3663)	corefast%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	corefast%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	corefast%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	corefast%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	corefast%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3576)	corefast%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	corefast%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	corefast%desc_impur%zn (vecint_type) (7.9.7.1.19)

i_ion (3704)	corefast%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	corefast%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	corefast%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	corefast%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	corefast%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3576)	corefast%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	corefast%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	corefast%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	corefast%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	corefast%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	corefast%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	corefast%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	corefast%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	corefast%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	corefast%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	corefast%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	corefast%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	corefast%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	corefast%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	corefast%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	corefast%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	corefast%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	corefast%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	corefast%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	corefast%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	corefast%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	corefast%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	corefast%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	corefast%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	corefast%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	corefast%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	corefast%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	corefast%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	corefast%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	corefast%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	corefast%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	corefast%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	corefast%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	corefast%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	corefast%compositions%signature%description (string) (7.9.7.1.4)
toroid_field (3576)	corefast%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	corefast%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	corefast%toroid_field%b0 (float) (7.9.7.1.2)
values (3576)	corefast%values(:) (corefast_values) (7.9.7.1.127)
fastid (3674)	corefast%values(:)%fastid (identifier) (7.9.7.1.256)
id (3803)	corefast%values(:)%fastid%id (string) (7.9.7.1.4)
flag (3803)	corefast%values(:)%fastid%flag (integer) (7.9.7.1.3)
description (3803)	corefast%values(:)%fastid%description (string) (7.9.7.1.4)
filter (3674)	corefast%values(:)%filter (fast_thermal_separation_filter) (7.9.7.1.221)
method (3768)	corefast%values(:)%filter%method (identifier) (7.9.7.1.256)
id (3803)	corefast%values(:)%filter%method%id (string) (7.9.7.1.4)
flag (3803)	corefast%values(:)%filter%method%flag (integer) (7.9.7.1.3)
description (3803)	corefast%values(:)%filter%method%description (string) (7.9.7.1.4)
energy_sep (3768)	corefast%values(:)%filter%energy_sep (vecflt_type) (7.9.7.1.18)
rho_tor (3674)	corefast%values(:)%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3674)	corefast%values(:)%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3674)	corefast%values(:)%psi (vecflt_type) (7.9.7.1.18)
volume (3674)	corefast%values(:)%volume (vecflt_type) (7.9.7.1.18)
area (3674)	corefast%values(:)%area (vecflt_type) (7.9.7.1.18)
j (3674)	corefast%values(:)%j (vecflt_type) (7.9.7.1.18)
sigma (3674)	corefast%values(:)%sigma (vecflt_type) (7.9.7.1.18)

ni (3674)	corefast%values(:)%ni (matflt_type) (7.9.7.1.15)
ne (3674)	corefast%values(:)%ne (vecflt_type) (7.9.7.1.18)
nz (3674)	corefast%values(:)%nz (matflt_type) (7.9.7.1.15)
pi (3674)	corefast%values(:)%pi (matflt_type) (7.9.7.1.15)
pe (3674)	corefast%values(:)%pe (vecflt_type) (7.9.7.1.18)
pz (3674)	corefast%values(:)%pz (matflt_type) (7.9.7.1.15)
pi_para (3674)	corefast%values(:)%pi_para (matflt_type) (7.9.7.1.15)
pe_para (3674)	corefast%values(:)%pe_para (vecflt_type) (7.9.7.1.18)
pz_para (3674)	corefast%values(:)%pz_para (matflt_type) (7.9.7.1.15)
ui (3674)	corefast%values(:)%ui (matflt_type) (7.9.7.1.15)
uz (3674)	corefast%values(:)%uz (matflt_type) (7.9.7.1.15)
codeparam (3674)	corefast%values(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	corefast%values(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	corefast%values(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	corefast%values(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	corefast%values(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	corefast%values(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3576)	corefast%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	corefast%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	corefast%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	corefast%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	corefast%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	corefast%codeparam%output_flag (integer) (7.9.7.1.3)
time (3576)	corefast%time (float) (7.9.7.1.2)

7.9.7.2.8 coreimpur

datainfo (3577)	coreimpur%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coreimpur%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coreimpur%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coreimpur%datainfo%source (string) (7.9.7.1.4)
comment (3702)	coreimpur%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	coreimpur%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coreimpur%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coreimpur%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	coreimpur%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	coreimpur%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coreimpur%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coreimpur%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coreimpur%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coreimpur%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coreimpur%datainfo%putinfo%rights (string) (7.9.7.1.4)
rho_tor_norm (3577)	coreimpur%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3577)	coreimpur%rho_tor (vecflt_type) (7.9.7.1.18)
psi (3577)	coreimpur%psi (vecflt_type) (7.9.7.1.18)
volume (3577)	coreimpur%volume (vecflt_type) (7.9.7.1.18)
area (3577)	coreimpur%area (vecflt_type) (7.9.7.1.18)
source (3577)	coreimpur%source (vecstring_type) (7.9.7.1.20)
flag (3577)	coreimpur%flag (vecint_type) (7.9.7.1.19)
desc_impur (3577)	coreimpur%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coreimpur%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coreimpur%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coreimpur%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coreimpur%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coreimpur%desc_impur%label (vecstring_type) (7.9.7.1.20)

compositions (3577)	coreimpur%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coreimpur%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coreimpur%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coreimpur%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coreimpur%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coreimpur%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coreimpur%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coreimpur%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coreimpur%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coreimpur%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coreimpur%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coreimpur%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coreimpur%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coreimpur%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coreimpur%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coreimpur%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coreimpur%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coreimpur%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coreimpur%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coreimpur%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coreimpur%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coreimpur%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coreimpur%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coreimpur%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coreimpur%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coreimpur%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	coreimpur%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coreimpur%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coreimpur%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coreimpur%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	coreimpur%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	coreimpur%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coreimpur%compositions%signature%description (string) (7.9.7.1.4)
atomic_data (3577)	coreimpur%atomic_data (vecstring_type) (7.9.7.1.20)
impurity (3577)	coreimpur%impurity(:) (impurity_type) (7.9.7.1.259)
z (3806)	coreimpur%impurity(:)%z (matflt_type) (7.9.7.1.15)
zsq (3806)	coreimpur%impurity(:)%zsq (matflt_type) (7.9.7.1.15)
nz (3806)	coreimpur%impurity(:)%nz (matflt_type) (7.9.7.1.15)
tz (3806)	coreimpur%impurity(:)%tz (matflt_type) (7.9.7.1.15)
source_term (3806)	coreimpur%impurity(:)%source_term (sourceimp) (7.9.7.1.429)
value (3976)	coreimpur%impurity(:)%source_term%value (matflt_type) (7.9.7.1.15)
integral (3976)	coreimpur%impurity(:)%source_term%integral (matflt_type) (7.9.7.1.15)
source (3976)	coreimpur%impurity(:)%source_term%source (vecstring_type) (7.9.7.1.20)
boundary (3806)	coreimpur%impurity(:)%boundary (boundaryimp) (7.9.7.1.91)
value (3638)	coreimpur%impurity(:)%boundary%value (matflt_type) (7.9.7.1.15)
source (3638)	coreimpur%impurity(:)%boundary%source (string) (7.9.7.1.4)
type (3638)	coreimpur%impurity(:)%boundary%type (vecint_type) (7.9.7.1.19)
rho (3638)	coreimpur%impurity(:)%boundary%rho (vecflt_type) (7.9.7.1.18)
codeparam (3638)	coreimpur%impurity(:)%boundary%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreimpur%impurity(:)%boundary%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreimpur%impurity(:)%boundary%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreimpur%impurity(:)%boundary%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreimpur%impurity(:)%boundary%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreimpur%impurity(:)%boundary%codeparam%output_flag (integer) (7.9.7.1.3)
transp_coef (3806)	coreimpur%impurity(:)%transp_coef (coretransimp) (7.9.7.1.148)
diff (3695)	coreimpur%impurity(:)%transp_coef%diff (matflt_type) (7.9.7.1.15)
vconv (3695)	coreimpur%impurity(:)%transp_coef%vconv (matflt_type) (7.9.7.1.15)
source (3695)	coreimpur%impurity(:)%transp_coef%source (vecstring_type) (7.9.7.1.20)
flux (3806)	coreimpur%impurity(:)%flux (fluximp) (7.9.7.1.227)

flux_dv (3774)	coreimpur%impurity(:)%flux%flux_dv (matflt_type) (7.9.7.1.15)
flux_interp (3774)	coreimpur%impurity(:)%flux%flux_interp (matflt_type) (7.9.7.1.15)
time_deriv (3806)	coreimpur%impurity(:)%time_deriv (matflt_type) (7.9.7.1.15)
diagnostic (3806)	coreimpur%impurity(:)%diagnostic (coreimpurediag_type) (7.9.7.1.139)
radiation (3686)	coreimpur%impurity(:)%diagnostic%radiation (coreimpurediag_radiation) (7.9.7.1.136)
line_rad (3683)	coreimpur%impurity(:)%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.7.1.15)
brem_radrec (3683)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.7.1.15)
sum (3683)	coreimpur%impurity(:)%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%radiation%sum%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%radiation%sum%integral (matflt_type) (7.9.7.1.15)
energy (3686)	coreimpur%impurity(:)%diagnostic%energy (coreimpurediag_energy) (7.9.7.1.135)
ionization (3682)	coreimpur%impurity(:)%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%energy%ionization%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%energy%ionization%integral (matflt_type) (7.9.7.1.15)
recombin (3682)	coreimpur%impurity(:)%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%energy%recombin%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%energy%recombin%integral (matflt_type) (7.9.7.1.15)
sum (3682)	coreimpur%impurity(:)%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%impurity(:)%diagnostic%energy%sum%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%impurity(:)%diagnostic%energy%sum%integral (matflt_type) (7.9.7.1.15)
diagnostic (3577)	coreimpur%diagnostic (coreimpurediag_type) (7.9.7.1.139)
radiation (3686)	coreimpur%diagnostic%radiation (coreimpurediag_radiation) (7.9.7.1.136)
line_rad (3683)	coreimpur%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.7.1.15)
brem_radrec (3683)	coreimpur%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.7.1.15)
sum (3683)	coreimpur%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%radiation%sum%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%radiation%sum%integral (matflt_type) (7.9.7.1.15)
energy (3686)	coreimpur%diagnostic%energy (coreimpurediag_energy) (7.9.7.1.135)
ionization (3682)	coreimpur%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%energy%ionization%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%energy%ionization%integral (matflt_type) (7.9.7.1.15)
recombin (3682)	coreimpur%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%energy%recombin%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%energy%recombin%integral (matflt_type) (7.9.7.1.15)
sum (3682)	coreimpur%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.7.1.140)
profile (3687)	coreimpur%diagnostic%energy%sum%profile (matflt_type) (7.9.7.1.15)
integral (3687)	coreimpur%diagnostic%energy%sum%integral (matflt_type) (7.9.7.1.15)
diagnosticsum (3577)	coreimpur%diagnosticsum (coreimpurediag_sum) (7.9.7.1.137)
radiation (3684)	coreimpur%diagnosticsum%radiation (coreimpurdiag_sum_radiation) (7.9.7.1.134)
line_rad (3681)	coreimpur%diagnosticsum%radiation%line_rad (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%radiation%line_rad%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%radiation%line_rad%integral (vecflt_type) (7.9.7.1.18)
brem_radrec (3681)	coreimpur%diagnosticsum%radiation%brem_radrec (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%radiation%brem_radrec%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%radiation%brem_radrec%integral (vecflt_type) (7.9.7.1.18)
sum (3681)	coreimpur%diagnosticsum%radiation%sum (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%radiation%sum%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%radiation%sum%integral (vecflt_type) (7.9.7.1.18)
energy (3684)	coreimpur%diagnosticsum%energy (coreimpurediag_sum_energy) (7.9.7.1.138)

ionization (3685)	coreimpur%diagnosticsum%energy%ionization (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%energy%ionization%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%energy%ionization%integral (vecflt_type) (7.9.7.1.18)
recombin (3685)	coreimpur%diagnosticsum%energy%recombin (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%energy%recombin%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%energy%recombin%integral (vecflt_type) (7.9.7.1.18)
sum (3685)	coreimpur%diagnosticsum%energy%sum (coreimpurediagsum_type) (7.9.7.1.141)
profile (3688)	coreimpur%diagnosticsum%energy%sum%profile (vecflt_type) (7.9.7.1.18)
integral (3688)	coreimpur%diagnosticsum%energy%sum%integral (vecflt_type) (7.9.7.1.18)
codeparam (3577)	coreimpur%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreimpur%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreimpur%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreimpur%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreimpur%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreimpur%codeparam%output_flag (integer) (7.9.7.1.3)
time (3577)	coreimpur%time (float) (7.9.7.1.2)

7.9.7.2.9 coreneutrals

datainfo (3578)	coreneutrals%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coreneutrals%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coreneutrals%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coreneutrals%datainfo%source (string) (7.9.7.1.4)
comment (3702)	coreneutrals%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	coreneutrals%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coreneutrals%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coreneutrals%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	coreneutrals%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	coreneutrals%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coreneutrals%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coreneutrals%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coreneutrals%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coreneutrals%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coreneutrals%datainfo%putinfo%rights (string) (7.9.7.1.4)
rho_tor (3578)	coreneutrals%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3578)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3578)	coreneutrals%psi (vecflt_type) (7.9.7.1.18)
volume (3578)	coreneutrals%volume (vecflt_type) (7.9.7.1.18)
area (3578)	coreneutrals%area (vecflt_type) (7.9.7.1.18)
neutcompo (3578)	coreneutrals%neutcompo (composition_neutrals) (7.9.7.1.117)
atomlist (3664)	coreneutrals%neutcompo%atomlist(:) (coreneutrals_atomlist) (7.9.7.1.142)
amn (3689)	coreneutrals%neutcompo%atomlist(:)%amn (float) (7.9.7.1.2)
zn (3689)	coreneutrals%neutcompo%atomlist(:)%zn (float) (7.9.7.1.2)
ionimptype (3689)	coreneutrals%neutcompo%atomlist(:)%ionimptype (identifier) (7.9.7.1.256)
id (3803)	coreneutrals%neutcompo%atomlist(:)%ionimptype%id (string) (7.9.7.1.4)
flag (3803)	coreneutrals%neutcompo%atomlist(:)%ionimptype%flag (integer) (7.9.7.1.3)
description (3803)	coreneutrals%neutcompo%atomlist(:)%ionimptype%description (string) (7.9.7.1.4)
ionimpindex (3689)	coreneutrals%neutcompo%atomlist(:)%ionimpindex (integer) (7.9.7.1.3)
neutral (3664)	coreneutrals%neutcompo%neutral(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coreneutrals%neutcompo%neutral(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coreneutrals%neutcompo%neutral(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coreneutrals%neutcompo%neutral(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coreneutrals%neutcompo%neutral(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coreneutrals%neutcompo%neutral(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coreneutrals%neutcompo%neutral(:)%label (string) (7.9.7.1.4)

composition (3578)	coreneutrals%composition (composition) (7.9.7.1.116)
amn (3663)	coreneutrals%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	coreneutrals%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	coreneutrals%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	coreneutrals%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	coreneutrals%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3578)	coreneutrals%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coreneutrals%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coreneutrals%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coreneutrals%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coreneutrals%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coreneutrals%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coreneutrals%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coreneutrals%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3578)	coreneutrals%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coreneutrals%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coreneutrals%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coreneutrals%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coreneutrals%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coreneutrals%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coreneutrals%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coreneutrals%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coreneutrals%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coreneutrals%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coreneutrals%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coreneutrals%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coreneutrals%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coreneutrals%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coreneutrals%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coreneutrals%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coreneutrals%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coreneutrals%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coreneutrals%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coreneutrals%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coreneutrals%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coreneutrals%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coreneutrals%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coreneutrals%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coreneutrals%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	coreneutrals%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coreneutrals%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coreneutrals%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coreneutrals%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	coreneutrals%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	coreneutrals%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coreneutrals%compositions%signature%description (string) (7.9.7.1.4)
profiles (3578)	coreneutrals%profiles(:) (neutral_complex_type) (7.9.7.1.311)
neutraltype (3858)	coreneutrals%profiles(:)%neutraltype(:) (coreneutrals_neutraltype) (7.9.7.1.143)
n0 (3690)	coreneutrals%profiles(:)%neutraltype(:)%n0 (corefieldneutral) (7.9.7.1.130)
value (3677)	coreneutrals%profiles(:)%neutraltype(:)%n0%value (vecflt_type) (7.9.7.1.18)
flux (3677)	coreneutrals%profiles(:)%neutraltype(:)%n0%flux (vecflt_type) (7.9.7.1.18)
boundary (3677)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary (boundary_neutrals) (7.9.7.1.89)
value (3636)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%value (vecflt_type) (7.9.7.1.18)
type (3636)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%type (integer) (7.9.7.1.3)
rho_tor (3636)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%rho_tor (float) (7.9.7.1.2)
t0 (3690)	coreneutrals%profiles(:)%neutraltype(:)%t0 (corefieldneutrale) (7.9.7.1.131)
value (3678)	coreneutrals%profiles(:)%neutraltype(:)%t0%value (vecflt_type) (7.9.7.1.18)
flux (3678)	coreneutrals%profiles(:)%neutraltype(:)%t0%flux (vecflt_type) (7.9.7.1.18)

boundary (3678)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary (boundary_neutrals) (7.9.7.1.89)
value (3636)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%value (vecflt_type) (7.9.7.1.18)
type (3636)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%type (integer) (7.9.7.1.3)
rho_tor (3636)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%rho_tor (float) (7.9.7.1.2)
v0 (3690)	coreneutrals%profiles(:)%neutraltype(:)%v0 (corefieldneutralv0) (7.9.7.1.133)
toroidal (3680)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal (corefieldneutralv) (7.9.7.1.132)
value (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%value (vecflt_type) (7.9.7.1.18)
boundary (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary (boundary_neutrals) (7.9.7.1.89)
value (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%value (vecflt_type) (7.9.7.1.18)
type (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%type (integer) (7.9.7.1.3)
rho_tor (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%rho_tor (float) (7.9.7.1.2)
poloidal (3680)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal (corefieldneutralv) (7.9.7.1.132)
value (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%value (vecflt_type) (7.9.7.1.18)
boundary (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary (boundary_neutrals) (7.9.7.1.89)
value (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%value (vecflt_type) (7.9.7.1.18)
type (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%type (integer) (7.9.7.1.3)
rho_tor (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%rho_tor (float) (7.9.7.1.2)
radial (3680)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial (corefieldneutralv) (7.9.7.1.132)
value (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%value (vecflt_type) (7.9.7.1.18)
boundary (3679)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary (boundary_neutrals) (7.9.7.1.89)
value (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%value (vecflt_type) (7.9.7.1.18)
type (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%type (integer) (7.9.7.1.3)
rho_tor (3636)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%rho_tor (float) (7.9.7.1.2)
prad0 (3858)	coreneutrals%profiles(:)%prad0 (vecflt_type) (7.9.7.1.18)
ioncoeff (3578)	coreneutrals%ioncoeff(:) (coefficients_neutrals) (7.9.7.1.99)
recycling (3646)	coreneutrals%ioncoeff(:)%recycling (recycling_neutrals) (7.9.7.1.368)
particles (3915)	coreneutrals%ioncoeff(:)%recycling%particles (vecflt_type) (7.9.7.1.18)
energy (3915)	coreneutrals%ioncoeff(:)%recycling%energy (vecflt_type) (7.9.7.1.18)
sputtering (3646)	coreneutrals%ioncoeff(:)%sputtering (sputtering_neutrals) (7.9.7.1.436)
physical (3983)	coreneutrals%ioncoeff(:)%sputtering%physical (vecflt_type) (7.9.7.1.18)
chemical (3983)	coreneutrals%ioncoeff(:)%sputtering%chemical (vecflt_type) (7.9.7.1.18)
impcoeff (3578)	coreneutrals%impcoeff(:) (impcoeff) (7.9.7.1.257)
chargestate (3804)	coreneutrals%impcoeff(:)%chargestate(:) (coefficients_neutrals) (7.9.7.1.99)
recycling (3646)	coreneutrals%impcoeff(:)%chargestate(:)%recycling (recycling_neutrals) (7.9.7.1.368)
particles (3915)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%particles (vecflt_type) (7.9.7.1.18)
energy (3915)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%energy (vecflt_type) (7.9.7.1.18)
sputtering (3646)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering (sputtering_neutrals) (7.9.7.1.436)
physical (3983)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%physical (vecflt_type) (7.9.7.1.18)
chemical (3983)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%chemical (vecflt_type) (7.9.7.1.18)
codeparam (3578)	coreneutrals%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreneutrals%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreneutrals%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreneutrals%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreneutrals%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreneutrals%codeparam%output_flag (integer) (7.9.7.1.3)
time (3578)	coreneutrals%time (float) (7.9.7.1.2)

7.9.7.2.10 coreprof

datainfo (3579)	coreprof%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coreprof%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coreprof%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coreprof%datainfo%source (string) (7.9.7.1.4)
comment (3702)	coreprof%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	coreprof%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coreprof%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coreprof%datainfo%isref (integer) (7.9.7.1.3)

whatref (3702)	coreprof%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	coreprof%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coreprof%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coreprof%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coreprof%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coreprof%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coreprof%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coreprof%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coreprof%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coreprof%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coreprof%datainfo%putinfo%rights (string) (7.9.7.1.4)
rho_tor_norm (3579)	coreprof%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3579)	coreprof%rho_tor (vecflt_type) (7.9.7.1.18)
drho_dt (3579)	coreprof%drho_dt (vecflt_type) (7.9.7.1.18)
toroid_field (3579)	coreprof%toroid_field (toroid_field) (7.9.7.1.480)
b0 (4027)	coreprof%toroid_field%b0 (float) (7.9.7.1.2)
b0prime (4027)	coreprof%toroid_field%b0prime (float) (7.9.7.1.2)
r0 (4027)	coreprof%toroid_field%r0 (float) (7.9.7.1.2)
time (4027)	coreprof%toroid_field%time (float) (7.9.7.1.2)
composition (3579)	coreprof%composition (composition) (7.9.7.1.116)
amn (3663)	coreprof%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	coreprof%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	coreprof%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	coreprof%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	coreprof%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3579)	coreprof%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coreprof%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coreprof%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coreprof%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coreprof%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coreprof%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coreprof%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coreprof%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3579)	coreprof%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coreprof%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coreprof%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coreprof%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coreprof%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coreprof%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coreprof%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coreprof%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coreprof%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coreprof%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coreprof%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coreprof%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coreprof%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coreprof%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coreprof%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coreprof%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coreprof%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coreprof%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coreprof%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coreprof%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coreprof%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coreprof%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coreprof%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coreprof%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coreprof%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coreprof%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)

zmin (3753)	coreprof%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coreprof%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coreprof%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coreprof%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	coreprof%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	coreprof%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coreprof%compositions%signature%description (string) (7.9.7.1.4)
psi (3579)	coreprof%psi (psi) (7.9.7.1.362)
value (3909)	coreprof%psi%value (vecflt_type) (7.9.7.1.18)
ddrho (3909)	coreprof%psi%ddrho (vecflt_type) (7.9.7.1.18)
d2drho2 (3909)	coreprof%psi%d2drho2 (vecflt_type) (7.9.7.1.18)
ddt_rhotorn (3909)	coreprof%psi%ddt_rhotorn (vecflt_type) (7.9.7.1.18)
ddt_phi (3909)	coreprof%psi%ddt_phi (vecflt_type) (7.9.7.1.18)
source (3909)	coreprof%psi%source (string) (7.9.7.1.4)
flag (3909)	coreprof%psi%flag (integer) (7.9.7.1.3)
boundary (3909)	coreprof%psi%boundary (boundary) (7.9.7.1.88)
value (3635)	coreprof%psi%boundary%value (vecflt_type) (7.9.7.1.18)
source (3635)	coreprof%psi%boundary%source (string) (7.9.7.1.4)
type (3635)	coreprof%psi%boundary%type (integer) (7.9.7.1.3)
rho (3635)	coreprof%psi%boundary%rho (float) (7.9.7.1.2)
codeparam (3635)	coreprof%psi%boundary%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%psi%boundary%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.7.1.3)
jni (3909)	coreprof%psi%jni (jni) (7.9.7.1.263)
value (3810)	coreprof%psi%jni%value (vecflt_type) (7.9.7.1.18)
integral (3810)	coreprof%psi%jni%integral (vecflt_type) (7.9.7.1.18)
source (3810)	coreprof%psi%jni%source (string) (7.9.7.1.4)
sigma_par (3909)	coreprof%psi%sigma_par (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%psi%sigma_par%source (string) (7.9.7.1.4)
codeparam (3909)	coreprof%psi%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%psi%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%psi%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%psi%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%psi%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%psi%codeparam%output_flag (integer) (7.9.7.1.3)
te (3579)	coreprof%te (corefield) (7.9.7.1.128)
value (3675)	coreprof%te%value (vecflt_type) (7.9.7.1.18)
ddrho (3675)	coreprof%te%ddrho (vecflt_type) (7.9.7.1.18)
d2drho2 (3675)	coreprof%te%d2drho2 (vecflt_type) (7.9.7.1.18)
ddt (3675)	coreprof%te%ddt (vecflt_type) (7.9.7.1.18)
source (3675)	coreprof%te%source (string) (7.9.7.1.4)
flag (3675)	coreprof%te%flag (integer) (7.9.7.1.3)
boundary (3675)	coreprof%te%boundary (boundaryel) (7.9.7.1.90)
value (3637)	coreprof%te%boundary%value (vecflt_type) (7.9.7.1.18)
source (3637)	coreprof%te%boundary%source (string) (7.9.7.1.4)
type (3637)	coreprof%te%boundary%type (integer) (7.9.7.1.3)
rho_tor (3637)	coreprof%te%boundary%rho_tor (float) (7.9.7.1.2)
source_term (3675)	coreprof%te%source_term (sourceel) (7.9.7.1.428)
value (3975)	coreprof%te%source_term%value (vecflt_type) (7.9.7.1.18)
integral (3975)	coreprof%te%source_term%integral (vecflt_type) (7.9.7.1.18)
source (3975)	coreprof%te%source_term%source (string) (7.9.7.1.4)
transp_coef (3675)	coreprof%te%transp_coef (coretransel) (7.9.7.1.147)
diff (3694)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.7.1.18)
vconv (3694)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.7.1.18)
source (3694)	coreprof%te%transp_coef%source (string) (7.9.7.1.4)
flux (3675)	coreprof%te%flux (fluxel) (7.9.7.1.226)
flux_dv (3773)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.7.1.18)

flux_interp (3773)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.7.1.18)
flux_dv_surf (3675)	coreprof%te%flux_dv_surf (vecflt_type) (7.9.7.1.18)
time_deriv (3675)	coreprof%te%time_deriv (vecflt_type) (7.9.7.1.18)
codeparam (3675)	coreprof%te%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%te%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%te%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%te%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%te%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%te%codeparam%output_flag (integer) (7.9.7.1.3)
ti (3579)	coreprof%ti (corefieldion) (7.9.7.1.129)
value (3676)	coreprof%ti%value (matflt_type) (7.9.7.1.15)
ddrho (3676)	coreprof%ti%ddrho (matflt_type) (7.9.7.1.15)
d2drho2 (3676)	coreprof%ti%d2drho2 (matflt_type) (7.9.7.1.15)
ddt (3676)	coreprof%ti%ddt (matflt_type) (7.9.7.1.15)
source (3676)	coreprof%ti%source (vecstring_type) (7.9.7.1.20)
flag (3676)	coreprof%ti%flag (vecint_type) (7.9.7.1.19)
boundary (3676)	coreprof%ti%boundary (boundaryion) (7.9.7.1.92)
value (3639)	coreprof%ti%boundary%value (matflt_type) (7.9.7.1.15)
source (3639)	coreprof%ti%boundary%source (vecstring_type) (7.9.7.1.20)
type (3639)	coreprof%ti%boundary%type (vecint_type) (7.9.7.1.19)
rho_tor (3639)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.7.1.18)
source_term (3676)	coreprof%ti%source_term (sourceion) (7.9.7.1.430)
value (3977)	coreprof%ti%source_term%value (matflt_type) (7.9.7.1.15)
integral (3977)	coreprof%ti%source_term%integral (matflt_type) (7.9.7.1.15)
source (3977)	coreprof%ti%source_term%source (vecstring_type) (7.9.7.1.20)
transp_coef (3676)	coreprof%ti%transp_coef (coretransion) (7.9.7.1.149)
diff (3696)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.7.1.15)
vconv (3696)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.7.1.15)
source (3696)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.7.1.20)
flux (3676)	coreprof%ti%flux (fluxion) (7.9.7.1.228)
flux_dv (3775)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.7.1.15)
flux_interp (3775)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.7.1.15)
flux_dv_surf (3676)	coreprof%ti%flux_dv_surf (matflt_type) (7.9.7.1.15)
time_deriv (3676)	coreprof%ti%time_deriv (matflt_type) (7.9.7.1.15)
codeparam (3676)	coreprof%ti%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%ti%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%ti%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%ti%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%ti%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%ti%codeparam%output_flag (integer) (7.9.7.1.3)
ne (3579)	coreprof%ne (corefield) (7.9.7.1.128)
value (3675)	coreprof%ne%value (vecflt_type) (7.9.7.1.18)
ddrho (3675)	coreprof%ne%ddrho (vecflt_type) (7.9.7.1.18)
d2drho2 (3675)	coreprof%ne%d2drho2 (vecflt_type) (7.9.7.1.18)
ddt (3675)	coreprof%ne%ddt (vecflt_type) (7.9.7.1.18)
source (3675)	coreprof%ne%source (string) (7.9.7.1.4)
flag (3675)	coreprof%ne%flag (integer) (7.9.7.1.3)
boundary (3675)	coreprof%ne%boundary (boundaryel) (7.9.7.1.90)
value (3637)	coreprof%ne%boundary%value (vecflt_type) (7.9.7.1.18)
source (3637)	coreprof%ne%boundary%source (string) (7.9.7.1.4)
type (3637)	coreprof%ne%boundary%type (integer) (7.9.7.1.3)
rho_tor (3637)	coreprof%ne%boundary%rho_tor (float) (7.9.7.1.2)
source_term (3675)	coreprof%ne%source_term (sourceel) (7.9.7.1.428)
value (3975)	coreprof%ne%source_term%value (vecflt_type) (7.9.7.1.18)
integral (3975)	coreprof%ne%source_term%integral (vecflt_type) (7.9.7.1.18)
source (3975)	coreprof%ne%source_term%source (string) (7.9.7.1.4)
transp_coef (3675)	coreprof%ne%transp_coef (coretransel) (7.9.7.1.147)
diff (3694)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.7.1.18)
vconv (3694)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.7.1.18)
source (3694)	coreprof%ne%transp_coef%source (string) (7.9.7.1.4)
flux (3675)	coreprof%ne%flux (fluxel) (7.9.7.1.226)

flux_dv (3773)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.7.1.18)
flux_interp (3773)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.7.1.18)
flux_dv_surf (3675)	coreprof%ne%flux_dv_surf (vecflt_type) (7.9.7.1.18)
time_deriv (3675)	coreprof%ne%time_deriv (vecflt_type) (7.9.7.1.18)
codeparam (3675)	coreprof%ne%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%ne%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%ne%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%ne%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%ne%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%ne%codeparam%output_flag (integer) (7.9.7.1.3)
ni (3579)	coreprof%ni (corefieldion) (7.9.7.1.129)
value (3676)	coreprof%ni%value (matflt_type) (7.9.7.1.15)
ddrho (3676)	coreprof%ni%ddrho (matflt_type) (7.9.7.1.15)
d2drho2 (3676)	coreprof%ni%d2drho2 (matflt_type) (7.9.7.1.15)
ddt (3676)	coreprof%ni%ddt (matflt_type) (7.9.7.1.15)
source (3676)	coreprof%ni%source (vecstring_type) (7.9.7.1.20)
flag (3676)	coreprof%ni%flag (vecint_type) (7.9.7.1.19)
boundary (3676)	coreprof%ni%boundary (boundaryion) (7.9.7.1.92)
value (3639)	coreprof%ni%boundary%value (matflt_type) (7.9.7.1.15)
source (3639)	coreprof%ni%boundary%source (vecstring_type) (7.9.7.1.20)
type (3639)	coreprof%ni%boundary%type (vecint_type) (7.9.7.1.19)
rho_tor (3639)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.7.1.18)
source_term (3676)	coreprof%ni%source_term (sourceion) (7.9.7.1.430)
value (3977)	coreprof%ni%source_term%value (matflt_type) (7.9.7.1.15)
integral (3977)	coreprof%ni%source_term%integral (matflt_type) (7.9.7.1.15)
source (3977)	coreprof%ni%source_term%source (vecstring_type) (7.9.7.1.20)
transp_coef (3676)	coreprof%ni%transp_coef (coretransion) (7.9.7.1.149)
diff (3696)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.7.1.15)
vconv (3696)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.7.1.15)
source (3696)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.7.1.20)
flux (3676)	coreprof%ni%flux (fluxion) (7.9.7.1.228)
flux_dv (3775)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.7.1.15)
flux_interp (3775)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.7.1.15)
flux_dv_surf (3676)	coreprof%ni%flux_dv_surf (matflt_type) (7.9.7.1.15)
time_deriv (3676)	coreprof%ni%time_deriv (matflt_type) (7.9.7.1.15)
codeparam (3676)	coreprof%ni%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%ni%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%ni%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%ni%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%ni%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%ni%codeparam%output_flag (integer) (7.9.7.1.3)
vtor (3579)	coreprof%vtor (corefieldion) (7.9.7.1.129)
value (3676)	coreprof%vtor%value (matflt_type) (7.9.7.1.15)
ddrho (3676)	coreprof%vtor%ddrho (matflt_type) (7.9.7.1.15)
d2drho2 (3676)	coreprof%vtor%d2drho2 (matflt_type) (7.9.7.1.15)
ddt (3676)	coreprof%vtor%ddt (matflt_type) (7.9.7.1.15)
source (3676)	coreprof%vtor%source (vecstring_type) (7.9.7.1.20)
flag (3676)	coreprof%vtor%flag (vecint_type) (7.9.7.1.19)
boundary (3676)	coreprof%vtor%boundary (boundaryion) (7.9.7.1.92)
value (3639)	coreprof%vtor%boundary%value (matflt_type) (7.9.7.1.15)
source (3639)	coreprof%vtor%boundary%source (vecstring_type) (7.9.7.1.20)
type (3639)	coreprof%vtor%boundary%type (vecint_type) (7.9.7.1.19)
rho_tor (3639)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.7.1.18)
source_term (3676)	coreprof%vtor%source_term (sourceion) (7.9.7.1.430)
value (3977)	coreprof%vtor%source_term%value (matflt_type) (7.9.7.1.15)
integral (3977)	coreprof%vtor%source_term%integral (matflt_type) (7.9.7.1.15)
source (3977)	coreprof%vtor%source_term%source (vecstring_type) (7.9.7.1.20)
transp_coef (3676)	coreprof%vtor%transp_coef (coretransion) (7.9.7.1.149)
diff (3696)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.7.1.15)
vconv (3696)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.7.1.15)
source (3696)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.7.1.20)

flux (3676)	coreprof%vtor%flux (fluxion) (7.9.7.1.228)
flux_dv (3775)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.7.1.15)
flux_interp (3775)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.7.1.15)
flux_dv_surf (3676)	coreprof%vtor%flux_dv_surf (matflt_type) (7.9.7.1.15)
time_deriv (3676)	coreprof%vtor%time_deriv (matflt_type) (7.9.7.1.15)
codeparam (3676)	coreprof%vtor%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%vtor%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%vtor%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%vtor%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%vtor%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%vtor%codeparam%output_flag (integer) (7.9.7.1.3)
profiles1d (3579)	coreprof%profiles1d (profiles1d) (7.9.7.1.360)
pe (3907)	coreprof%profiles1d%pe (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%pe%source (string) (7.9.7.1.4)
dpedt (3907)	coreprof%profiles1d%dpedt (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%dpedt%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%dpedt%source (string) (7.9.7.1.4)
pi (3907)	coreprof%profiles1d%pi (coreprofion) (7.9.7.1.145)
value (3692)	coreprof%profiles1d%pi%value (matflt_type) (7.9.7.1.15)
source (3692)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.7.1.20)
pi_tot (3907)	coreprof%profiles1d%pi_tot (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%pi_tot%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%pi_tot%source (string) (7.9.7.1.4)
dpi_totdt (3907)	coreprof%profiles1d%dpi_totdt (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%dpi_totdt%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%dpi_totdt%source (string) (7.9.7.1.4)
pr_th (3907)	coreprof%profiles1d%pr_th (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%pr_th%source (string) (7.9.7.1.4)
pr_perp (3907)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%pr_perp%source (string) (7.9.7.1.4)
pr_parallel (3907)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%pr_parallel%source (string) (7.9.7.1.4)
jtot (3907)	coreprof%profiles1d%jtot (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%jtot%source (string) (7.9.7.1.4)
jni (3907)	coreprof%profiles1d%jni (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%jni%source (string) (7.9.7.1.4)
jphi (3907)	coreprof%profiles1d%jphi (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%jphi%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%jphi%source (string) (7.9.7.1.4)
joh (3907)	coreprof%profiles1d%joh (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%joh%source (string) (7.9.7.1.4)
vloop (3907)	coreprof%profiles1d%vloop (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%vloop%source (string) (7.9.7.1.4)
sigmapar (3907)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%sigmapar%source (string) (7.9.7.1.4)
qoh (3907)	coreprof%profiles1d%qoh (sourceel) (7.9.7.1.428)
value (3975)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.7.1.18)
integral (3975)	coreprof%profiles1d%qoh%integral (vecflt_type) (7.9.7.1.18)
source (3975)	coreprof%profiles1d%qoh%source (string) (7.9.7.1.4)
qei (3907)	coreprof%profiles1d%qei (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%qei%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%qei%source (string) (7.9.7.1.4)

eparallel (3907)	coreprof%profiles1d%eparallel (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%eparallel%source (string) (7.9.7.1.4)
e_b (3907)	coreprof%profiles1d%e_b (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%e_b%source (string) (7.9.7.1.4)
q (3907)	coreprof%profiles1d%q (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%q%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%q%source (string) (7.9.7.1.4)
shear (3907)	coreprof%profiles1d%shear (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%shear%source (string) (7.9.7.1.4)
ns (3907)	coreprof%profiles1d%ns (coreprofion) (7.9.7.1.145)
value (3692)	coreprof%profiles1d%ns%value (matflt_type) (7.9.7.1.15)
source (3692)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.7.1.20)
mtor (3907)	coreprof%profiles1d%mtor (coreprofion) (7.9.7.1.145)
value (3692)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.7.1.15)
source (3692)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.7.1.20)
wtor (3907)	coreprof%profiles1d%wtor (coreprofion) (7.9.7.1.145)
value (3692)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.7.1.15)
source (3692)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.7.1.20)
vpol (3907)	coreprof%profiles1d%vpol (coreprofion) (7.9.7.1.145)
value (3692)	coreprof%profiles1d%vpol%value (matflt_type) (7.9.7.1.15)
source (3692)	coreprof%profiles1d%vpol%source (vecstring_type) (7.9.7.1.20)
zeff (3907)	coreprof%profiles1d%zeff (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%zeff%source (string) (7.9.7.1.4)
bpol (3907)	coreprof%profiles1d%bpol (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%bpol%source (string) (7.9.7.1.4)
dvprimedt (3907)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.7.1.144)
value (3691)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.7.1.18)
source (3691)	coreprof%profiles1d%dvprimedt%source (string) (7.9.7.1.4)
globalparam (3579)	coreprof%globalparam (globalparam) (7.9.7.1.250)
current_tot (3797)	coreprof%globalparam%current_tot (float) (7.9.7.1.2)
current_bnd (3797)	coreprof%globalparam%current_bnd (float) (7.9.7.1.2)
current_ni (3797)	coreprof%globalparam%current_ni (float) (7.9.7.1.2)
vloop (3797)	coreprof%globalparam%vloop (float) (7.9.7.1.2)
li (3797)	coreprof%globalparam%li (float) (7.9.7.1.2)
beta_tor (3797)	coreprof%globalparam%beta_tor (float) (7.9.7.1.2)
beta_normal (3797)	coreprof%globalparam%beta_normal (float) (7.9.7.1.2)
beta_pol (3797)	coreprof%globalparam%beta_pol (float) (7.9.7.1.2)
w_dia (3797)	coreprof%globalparam%w_dia (float) (7.9.7.1.2)
geom_axis (3797)	coreprof%globalparam%geom_axis (rz0D) (7.9.7.1.379)
r (3926)	coreprof%globalparam%geom_axis%r (float) (7.9.7.1.2)
z (3926)	coreprof%globalparam%geom_axis%z (float) (7.9.7.1.2)
codeparam (3579)	coreprof%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coreprof%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coreprof%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coreprof%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coreprof%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coreprof%codeparam%output_flag (integer) (7.9.7.1.3)
time (3579)	coreprof%time (float) (7.9.7.1.2)

7.9.7.2.11 coresource

datainfo (3580)	coresource%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coresource%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coresource%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coresource%datainfo%source (string) (7.9.7.1.4)
comment (3702)	coresource%datainfo%comment (string) (7.9.7.1.4)

cocos (3702)	coresource%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coresource%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coresource%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	coresource%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	coresource%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coresource%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coresource%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coresource%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coresource%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coresource%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coresource%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coresource%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coresource%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coresource%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3580)	coresource%composition (composition) (7.9.7.1.116)
amn (3663)	coresource%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	coresource%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	coresource%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	coresource%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	coresource%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3580)	coresource%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coresource%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coresource%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coresource%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coresource%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coresource%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coresource%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coresource%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3580)	coresource%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coresource%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coresource%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coresource%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coresource%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coresource%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coresource%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coresource%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coresource%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coresource%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coresource%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coresource%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coresource%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coresource%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coresource%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coresource%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coresource%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coresource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coresource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coresource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coresource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coresource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coresource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coresource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coresource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coresource%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coresource%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coresource%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	coresource%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coresource%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coresource%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coresource%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	coresource%compositions%signature%id (string) (7.9.7.1.4)

flag (3803)	coresource%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coresource%compositions%signature%description (string) (7.9.7.1.4)
toroid_field (3580)	coresource%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	coresource%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	coresource%toroid_field%b0 (float) (7.9.7.1.2)
values (3580)	coresource%values(:) (coresource_values) (7.9.7.1.146)
sourceid (3693)	coresource%values(:)%sourceid (identifier) (7.9.7.1.256)
id (3803)	coresource%values(:)%sourceid%id (string) (7.9.7.1.4)
flag (3803)	coresource%values(:)%sourceid%flag (integer) (7.9.7.1.3)
description (3803)	coresource%values(:)%sourceid%description (string) (7.9.7.1.4)
rho_tor (3693)	coresource%values(:)%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3693)	coresource%values(:)%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3693)	coresource%values(:)%psi (vecflt_type) (7.9.7.1.18)
volume (3693)	coresource%values(:)%volume (vecflt_type) (7.9.7.1.18)
area (3693)	coresource%values(:)%area (vecflt_type) (7.9.7.1.18)
j (3693)	coresource%values(:)%j (vecflt_type) (7.9.7.1.18)
sigma (3693)	coresource%values(:)%sigma (vecflt_type) (7.9.7.1.18)
si (3693)	coresource%values(:)%si (source_ion) (7.9.7.1.425)
exp (3972)	coresource%values(:)%si%exp (matflt_type) (7.9.7.1.15)
imp (3972)	coresource%values(:)%si%imp (matflt_type) (7.9.7.1.15)
se (3693)	coresource%values(:)%se (source_vec) (7.9.7.1.427)
exp (3974)	coresource%values(:)%se%exp (vecflt_type) (7.9.7.1.18)
imp (3974)	coresource%values(:)%se%imp (vecflt_type) (7.9.7.1.18)
sz (3693)	coresource%values(:)%sz(:) (source_imp) (7.9.7.1.424)
exp (3971)	coresource%values(:)%sz(:)%exp (matflt_type) (7.9.7.1.15)
imp (3971)	coresource%values(:)%sz(:)%imp (matflt_type) (7.9.7.1.15)
qi (3693)	coresource%values(:)%qi (source_ion) (7.9.7.1.425)
exp (3972)	coresource%values(:)%qi%exp (matflt_type) (7.9.7.1.15)
imp (3972)	coresource%values(:)%qi%imp (matflt_type) (7.9.7.1.15)
qe (3693)	coresource%values(:)%qe (source_vec) (7.9.7.1.427)
exp (3974)	coresource%values(:)%qe%exp (vecflt_type) (7.9.7.1.18)
imp (3974)	coresource%values(:)%qe%imp (vecflt_type) (7.9.7.1.18)
qz (3693)	coresource%values(:)%qz(:) (source_imp) (7.9.7.1.424)
exp (3971)	coresource%values(:)%qz(:)%exp (matflt_type) (7.9.7.1.15)
imp (3971)	coresource%values(:)%qz(:)%imp (matflt_type) (7.9.7.1.15)
ui (3693)	coresource%values(:)%ui (source_ion) (7.9.7.1.425)
exp (3972)	coresource%values(:)%ui%exp (matflt_type) (7.9.7.1.15)
imp (3972)	coresource%values(:)%ui%imp (matflt_type) (7.9.7.1.15)
ujxb (3693)	coresource%values(:)%ujxb (source_vec) (7.9.7.1.427)
exp (3974)	coresource%values(:)%ujxb%exp (vecflt_type) (7.9.7.1.18)
imp (3974)	coresource%values(:)%ujxb%imp (vecflt_type) (7.9.7.1.18)
codeparam (3693)	coresource%values(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coresource%values(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coresource%values(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coresource%values(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coresource%values(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coresource%values(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3580)	coresource%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coresource%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coresource%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coresource%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coresource%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coresource%codeparam%output_flag (integer) (7.9.7.1.3)
time (3580)	coresource%time (float) (7.9.7.1.2)

7.9.7.2.12 coretransp

datainfo (3581)	coretransp%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	coretransp%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	coretransp%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	coretransp%datainfo%source (string) (7.9.7.1.4)

comment (3702)	coretransp%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	coretransp%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	coretransp%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	coretransp%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	coretransp%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	coretransp%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	coretransp%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	coretransp%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	coretransp%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	coretransp%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	coretransp%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	coretransp%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	coretransp%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	coretransp%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	coretransp%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3581)	coretransp%composition (composition) (7.9.7.1.116)
amn (3663)	coretransp%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	coretransp%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	coretransp%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	coretransp%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	coretransp%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3581)	coretransp%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	coretransp%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	coretransp%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	coretransp%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	coretransp%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	coretransp%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	coretransp%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	coretransp%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3581)	coretransp%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	coretransp%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	coretransp%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	coretransp%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	coretransp%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	coretransp%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	coretransp%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	coretransp%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	coretransp%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	coretransp%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	coretransp%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	coretransp%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	coretransp%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	coretransp%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	coretransp%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	coretransp%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	coretransp%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	coretransp%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	coretransp%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	coretransp%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	coretransp%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	coretransp%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	coretransp%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	coretransp%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	coretransp%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	coretransp%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	coretransp%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	coretransp%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	coretransp%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	coretransp%compositions%signature (identifier) (7.9.7.1.256)

id (3803)	coretransp%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	coretransp%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	coretransp%compositions%signature%description (string) (7.9.7.1.4)
values (3581)	coretransp%values(:) (coretransp_values) (7.9.7.1.150)
transportid (3697)	coretransp%values(:)%transportid (identifier) (7.9.7.1.256)
id (3803)	coretransp%values(:)%transportid%id (string) (7.9.7.1.4)
flag (3803)	coretransp%values(:)%transportid%flag (integer) (7.9.7.1.3)
description (3803)	coretransp%values(:)%transportid%description (string) (7.9.7.1.4)
rho_tor_norm (3697)	coretransp%values(:)%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3697)	coretransp%values(:)%rho_tor (vecflt_type) (7.9.7.1.18)
psi (3697)	coretransp%values(:)%psi (vecflt_type) (7.9.7.1.18)
volume (3697)	coretransp%values(:)%volume (vecflt_type) (7.9.7.1.18)
area (3697)	coretransp%values(:)%area (vecflt_type) (7.9.7.1.18)
sigma (3697)	coretransp%values(:)%sigma (vecflt_type) (7.9.7.1.18)
ni_transp (3697)	coretransp%values(:)%ni_transp (ni_transp) (7.9.7.1.313)
diff_eff (3860)	coretransp%values(:)%ni_transp%diff_eff (array3dflt_type) (7.9.7.1.7)
vconv_eff (3860)	coretransp%values(:)%ni_transp%vconv_eff (array3dflt_type) (7.9.7.1.7)
flux (3860)	coretransp%values(:)%ni_transp%flux (matflt_type) (7.9.7.1.15)
off_diagonal (3860)	coretransp%values(:)%ni_transp%off_diagonal (offdiagion) (7.9.7.1.323)
d_ni (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.7.1.7)
d_ti (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.7.1.7)
d_ne (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.7.1.15)
d_te (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_te (matflt_type) (7.9.7.1.15)
d_epar (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.7.1.15)
d_mtor (3870)	coretransp%values(:)%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.7.1.15)
flag (3860)	coretransp%values(:)%ni_transp%flag (integer) (7.9.7.1.3)
ne_transp (3697)	coretransp%values(:)%ne_transp (ne_transp) (7.9.7.1.308)
diff_eff (3855)	coretransp%values(:)%ne_transp%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (3855)	coretransp%values(:)%ne_transp%vconv_eff (matflt_type) (7.9.7.1.15)
flux (3855)	coretransp%values(:)%ne_transp%flux (vecflt_type) (7.9.7.1.18)
off_diagonal (3855)	coretransp%values(:)%ne_transp%off_diagonal (offdiagel) (7.9.7.1.322)
d_ni (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.7.1.15)
d_ti (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.7.1.15)
d_ne (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.7.1.18)
d_te (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.7.1.18)
d_epar (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.7.1.18)
d_mtor (3869)	coretransp%values(:)%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.7.1.18)
flag (3855)	coretransp%values(:)%ne_transp%flag (integer) (7.9.7.1.3)
nz_transp (3697)	coretransp%values(:)%nz_transp(:) (transcoefimp) (7.9.7.1.483)
diff_eff (4030)	coretransp%values(:)%nz_transp(:)%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4030)	coretransp%values(:)%nz_transp(:)%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4030)	coretransp%values(:)%nz_transp(:)%exchange (matflt_type) (7.9.7.1.15)
flux (4030)	coretransp%values(:)%nz_transp(:)%flux (matflt_type) (7.9.7.1.15)
flag (4030)	coretransp%values(:)%nz_transp(:)%flag (integer) (7.9.7.1.3)
ti_transp (3697)	coretransp%values(:)%ti_transp (transcoefion) (7.9.7.1.484)
diff_eff (4031)	coretransp%values(:)%ti_transp%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4031)	coretransp%values(:)%ti_transp%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4031)	coretransp%values(:)%ti_transp%exchange (matflt_type) (7.9.7.1.15)
qgi (4031)	coretransp%values(:)%ti_transp%qgi (matflt_type) (7.9.7.1.15)
flux (4031)	coretransp%values(:)%ti_transp%flux (matflt_type) (7.9.7.1.15)
off_diagonal (4031)	coretransp%values(:)%ti_transp%off_diagonal (offdiagion) (7.9.7.1.323)
d_ni (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.7.1.7)
d_ti (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.7.1.7)
d_ne (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.7.1.15)
d_te (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_te (matflt_type) (7.9.7.1.15)
d_epar (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.7.1.15)
d_mtor (3870)	coretransp%values(:)%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.7.1.15)
flag (4031)	coretransp%values(:)%ti_transp%flag (integer) (7.9.7.1.3)
te_transp (3697)	coretransp%values(:)%te_transp (transcoefel) (7.9.7.1.482)
diff_eff (4029)	coretransp%values(:)%te_transp%diff_eff (vecflt_type) (7.9.7.1.18)
vconv_eff (4029)	coretransp%values(:)%te_transp%vconv_eff (vecflt_type) (7.9.7.1.18)

flux (4029)	coretransp%values(:)%te_transp%flux (vecflt_type) (7.9.7.1.18)
off_diagonal (4029)	coretransp%values(:)%te_transp%off_diagonal (offdiagel) (7.9.7.1.322)
d_ni (3869)	coretransp%values(:)%te_transp%off_diagonal%d_ni (matflt_type) (7.9.7.1.15)
d_ti (3869)	coretransp%values(:)%te_transp%off_diagonal%d_ti (matflt_type) (7.9.7.1.15)
d_ne (3869)	coretransp%values(:)%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.7.1.18)
d_te (3869)	coretransp%values(:)%te_transp%off_diagonal%d_te (vecflt_type) (7.9.7.1.18)
d_epar (3869)	coretransp%values(:)%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.7.1.18)
d_mtor (3869)	coretransp%values(:)%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.7.1.18)
flag (4029)	coretransp%values(:)%te_transp%flag (integer) (7.9.7.1.3)
tz_transp (3697)	coretransp%values(:)%tz_transp(:) (transcoefimp) (7.9.7.1.483)
diff_eff (4030)	coretransp%values(:)%tz_transp(:)%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4030)	coretransp%values(:)%tz_transp(:)%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4030)	coretransp%values(:)%tz_transp(:)%exchange (matflt_type) (7.9.7.1.15)
flux (4030)	coretransp%values(:)%tz_transp(:)%flux (matflt_type) (7.9.7.1.15)
flag (4030)	coretransp%values(:)%tz_transp(:)%flag (integer) (7.9.7.1.3)
vtor_transp (3697)	coretransp%values(:)%vtor_transp (transcoefvtor) (7.9.7.1.485)
diff_eff (4032)	coretransp%values(:)%vtor_transp%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4032)	coretransp%values(:)%vtor_transp%vconv_eff (matflt_type) (7.9.7.1.15)
flux (4032)	coretransp%values(:)%vtor_transp%flux (matflt_type) (7.9.7.1.15)
off_diagonal (4032)	coretransp%values(:)%vtor_transp%off_diagonal (offdiagion) (7.9.7.1.323)
d_ni (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.7.1.7)
d_ti (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.7.1.7)
d_ne (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.7.1.15)
d_te (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.7.1.15)
d_epar (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.7.1.15)
d_mtor (3870)	coretransp%values(:)%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.7.1.15)
flag (4032)	coretransp%values(:)%vtor_transp%flag (integer) (7.9.7.1.3)
codeparam (3697)	coretransp%values(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coretransp%values(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coretransp%values(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coretransp%values(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coretransp%values(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coretransp%values(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3581)	coretransp%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	coretransp%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	coretransp%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	coretransp%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	coretransp%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	coretransp%codeparam%output_flag (integer) (7.9.7.1.3)
time (3581)	coretransp%time (float) (7.9.7.1.2)

7.9.7.2.13 cxdiag

datainfo (3582)	cxdiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	cxdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	cxdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	cxdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	cxdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	cxdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	cxdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	cxdiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	cxdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	cxdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	cxdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	cxdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	cxdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	cxdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)

rights (3910)	cxdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3582)	cxdiag%setup (cxsetup) (7.9.7.1.153)
amn (3700)	cxdiag%setup%amn (vecflt_type) (7.9.7.1.18)
zn (3700)	cxdiag%setup%zn (vecflt_type) (7.9.7.1.18)
position (3700)	cxdiag%setup%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	cxdiag%setup%position%r (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%setup%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	cxdiag%setup%position%z (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%setup%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	cxdiag%setup%position%phi (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3582)	cxdiag%measure (cxmeasure) (7.9.7.1.152)
ti (3699)	cxdiag%measure%ti (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%measure%ti%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.7.1.18)
vtor (3699)	cxdiag%measure%vtor (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%measure%vtor%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.7.1.18)
vpol (3699)	cxdiag%measure%vpol (exp1D) (7.9.7.1.218)
value (3765)	cxdiag%measure%vpol%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3582)	cxdiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	cxdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	cxdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	cxdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	cxdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	cxdiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3582)	cxdiag%time (float) (7.9.7.1.2)

7.9.7.2.14 distribution

datainfo (3583)	distribution%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	distribution%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	distribution%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	distribution%datainfo%source (string) (7.9.7.1.4)
comment (3702)	distribution%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	distribution%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	distribution%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	distribution%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	distribution%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	distribution%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	distribution%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	distribution%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	distribution%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	distribution%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	distribution%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	distribution%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	distribution%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	distribution%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	distribution%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3583)	distribution%composition (composition) (7.9.7.1.116)
amn (3663)	distribution%composition%amn (vecflt_type) (7.9.7.1.18)

zn (3663)	distribution%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	distribution%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	distribution%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	distribution%composition%label (vecstring_type) (7.9.7.1.20)
compositions (3583)	distribution%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	distribution%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	distribution%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	distribution%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	distribution%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	distribution%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	distribution%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	distribution%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	distribution%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	distribution%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	distribution%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	distribution%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	distribution%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	distribution%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	distribution%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	distribution%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	distribution%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	distribution%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	distribution%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	distribution%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	distribution%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	distribution%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	distribution%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	distribution%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	distribution%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	distribution%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	distribution%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	distribution%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	distribution%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	distribution%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	distribution%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	distribution%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	distribution%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	distribution%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	distribution%compositions%signature%description (string) (7.9.7.1.4)
distri_vec (3583)	distribution%distri_vec(:) (distri_vec) (7.9.7.1.187)
wave_id (3734)	distribution%distri_vec(:)%wave_id(:) (enum_instance) (7.9.7.1.209)
type (3756)	distribution%distri_vec(:)%wave_id(:)%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%wave_id(:)%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%wave_id(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%wave_id(:)%type%description (string) (7.9.7.1.4)
name (3756)	distribution%distri_vec(:)%wave_id(:)%name (string) (7.9.7.1.4)
index (3756)	distribution%distri_vec(:)%wave_id(:)%index (integer) (7.9.7.1.3)
source_id (3734)	distribution%distri_vec(:)%source_id(:) (enum_instance) (7.9.7.1.209)
type (3756)	distribution%distri_vec(:)%source_id(:)%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%source_id(:)%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%source_id(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%source_id(:)%type%description (string) (7.9.7.1.4)
name (3756)	distribution%distri_vec(:)%source_id(:)%name (string) (7.9.7.1.4)
index (3756)	distribution%distri_vec(:)%source_id(:)%index (integer) (7.9.7.1.3)
species (3734)	distribution%distri_vec(:)%species (species_reference) (7.9.7.1.432)
type (3979)	distribution%distri_vec(:)%species%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%species%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%species%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%species%type%description (string) (7.9.7.1.4)
index (3979)	distribution%distri_vec(:)%species%index (integer) (7.9.7.1.3)
gyro_type (3734)	distribution%distri_vec(:)%gyro_type (integer) (7.9.7.1.3)

fast_filter (3734)	distribution%distri_vec(:)%fast_filter (fast_thermal_separation_filter) (7.9.7.1.221)
method (3768)	distribution%distri_vec(:)%fast_filter%method (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%fast_filter%method%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%fast_filter%method%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%fast_filter%method%description (string) (7.9.7.1.4)
energy_sep (3768)	distribution%distri_vec(:)%fast_filter%energy_sep (vecflt_type) (7.9.7.1.18)
global_param (3734)	distribution%distri_vec(:)%global_param (dist_global_param) (7.9.7.1.171)
geometry (3718)	distribution%distri_vec(:)%global_param%geometry (dist_geometry_0d) (7.9.7.1.168)
mag_axis (3715)	distribution%distri_vec(:)%global_param%geometry%mag_axis (rz0D) (7.9.7.1.379)
r (3926)	distribution%distri_vec(:)%global_param%geometry%mag_axis%r (float) (7.9.7.1.2)
z (3926)	distribution%distri_vec(:)%global_param%geometry%mag_axis%z (float) (7.9.7.1.2)
toroid_field (3715)	distribution%distri_vec(:)%global_param%geometry%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	distribution%distri_vec(:)%global_param%geometry%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	distribution%distri_vec(:)%global_param%geometry%toroid_field%b0 (float) (7.9.7.1.2)
state (3718)	distribution%distri_vec(:)%global_param%state (dist_state_0d) (7.9.7.1.183)
n_particles (3730)	distribution%distri_vec(:)%global_param%state%n_particles (float) (7.9.7.1.2)
n_part_fast (3730)	distribution%distri_vec(:)%global_param%state%n_part_fast (float) (7.9.7.1.2)
enrg (3730)	distribution%distri_vec(:)%global_param%state%enrg (float) (7.9.7.1.2)
enrg_fast (3730)	distribution%distri_vec(:)%global_param%state%enrg_fast (float) (7.9.7.1.2)
enrg_fast_pa (3730)	distribution%distri_vec(:)%global_param%state%enrg_fast_pa (float) (7.9.7.1.2)
momentm_fast (3730)	distribution%distri_vec(:)%global_param%state%momentm_fast (float) (7.9.7.1.2)
current_dr (3730)	distribution%distri_vec(:)%global_param%state%current_dr (float) (7.9.7.1.2)
torque_jrxb (3730)	distribution%distri_vec(:)%global_param%state%torque_jrxb (float) (7.9.7.1.2)
collisions_e (3718)	distribution%distri_vec(:)%global_param%collisions_e (dist_collisional_transfer_0d) (7.9.7.1.162)
power_th (3709)	distribution%distri_vec(:)%global_param%collisions_e%power_th (float) (7.9.7.1.2)
power_fast (3709)	distribution%distri_vec(:)%global_param%collisions_e%power_fast (float) (7.9.7.1.2)
torque_th (3709)	distribution%distri_vec(:)%global_param%collisions_e%torque_th (float) (7.9.7.1.2)
torque_fast (3709)	distribution%distri_vec(:)%global_param%collisions_e%torque_fast (float) (7.9.7.1.2)
collisions_i (3718)	distribution%distri_vec(:)%global_param%collisions_i(:) (dist_collisional_transfer_0d) (7.9.7.1.162)
power_th (3709)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_th (float) (7.9.7.1.2)
power_fast (3709)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_fast (float) (7.9.7.1.2)
torque_th (3709)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_th (float) (7.9.7.1.2)
torque_fast (3709)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_fast (float) (7.9.7.1.2)
collisions_z (3718)	distribution%distri_vec(:)%global_param%collisions_z(:) (dist_global_param_collisions_z) (7.9.7.1.172)
charge_state (3719)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:) (dist_collisional_transfer_0d) (7.9.7.1.162)
power_th (3709)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_th (float) (7.9.7.1.2)
power_fast (3709)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_fast (float) (7.9.7.1.2)
torque_th (3709)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_th (float) (7.9.7.1.2)
torque_fast (3709)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_fast (float) (7.9.7.1.2)
sources (3718)	distribution%distri_vec(:)%global_param%sources(:) (dist_sources_0d) (7.9.7.1.180)
source_ref (3727)	distribution%distri_vec(:)%global_param%sources(:)%source_ref (dist_sources_reference) (7.9.7.1.182)
type (3729)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%description (string) (7.9.7.1.4)
index_waveid (3729)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_waveid (vecint_type) (7.9.7.1.19)
index_srcid (3729)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_srcid (vecint_type) (7.9.7.1.19)
particle (3727)	distribution%distri_vec(:)%global_param%sources(:)%particle (float) (7.9.7.1.2)
momentum (3727)	distribution%distri_vec(:)%global_param%sources(:)%momentum (float) (7.9.7.1.2)
energy (3727)	distribution%distri_vec(:)%global_param%sources(:)%energy (float) (7.9.7.1.2)
profiles_1d (3734)	distribution%distri_vec(:)%profiles_1d (dist_profiles_1d) (7.9.7.1.177)
geometry (3724)	distribution%distri_vec(:)%profiles_1d%geometry (dist_geometry_1d) (7.9.7.1.169)

rho_tor (3716)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3716)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3716)	distribution%distri_vec(:)%profiles_1d%geometry%psi (vecflt_type) (7.9.7.1.18)
volume (3716)	distribution%distri_vec(:)%profiles_1d%geometry%volume (vecflt_type) (7.9.7.1.18)
area (3716)	distribution%distri_vec(:)%profiles_1d%geometry%area (vecflt_type) (7.9.7.1.18)
state (3724)	distribution%distri_vec(:)%profiles_1d%state (dist_state_1d) (7.9.7.1.184)
dens (3731)	distribution%distri_vec(:)%profiles_1d%state%dens (vecflt_type) (7.9.7.1.18)
dens_fast (3731)	distribution%distri_vec(:)%profiles_1d%state%dens_fast (vecflt_type) (7.9.7.1.18)
pres (3731)	distribution%distri_vec(:)%profiles_1d%state%pres (vecflt_type) (7.9.7.1.18)
pres_fast (3731)	distribution%distri_vec(:)%profiles_1d%state%pres_fast (vecflt_type) (7.9.7.1.18)
pres_fast_pa (3731)	distribution%distri_vec(:)%profiles_1d%state%pres_fast_pa (vecflt_type) (7.9.7.1.18)
momentm_fast (3731)	distribution%distri_vec(:)%profiles_1d%state%momentm_fast (vecflt_type) (7.9.7.1.18)
current (3731)	distribution%distri_vec(:)%profiles_1d%state%current (vecflt_type) (7.9.7.1.18)
current_fast (3731)	distribution%distri_vec(:)%profiles_1d%state%current_fast (vecflt_type) (7.9.7.1.18)
torque_jrxb (3731)	distribution%distri_vec(:)%profiles_1d%state%torque_jrxb (vecflt_type) (7.9.7.1.18)
collisions_e (3724)	distribution%distri_vec(:)%profiles_1d%collisions_e (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_i (3724)	distribution%distri_vec(:)%profiles_1d%collisions_i(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_z (3724)	distribution%distri_vec(:)%profiles_1d%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.7.1.178)
charge_state (3725)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.7.1.18)
thermalised (3724)	distribution%distri_vec(:)%profiles_1d%thermalised (dist_thermalised_1d) (7.9.7.1.186)
particle (3733)	distribution%distri_vec(:)%profiles_1d%thermalised%particle (vecflt_type) (7.9.7.1.18)
momentum (3733)	distribution%distri_vec(:)%profiles_1d%thermalised%momentum (vecflt_type) (7.9.7.1.18)
energy (3733)	distribution%distri_vec(:)%profiles_1d%thermalised%energy (vecflt_type) (7.9.7.1.18)
sources (3724)	distribution%distri_vec(:)%profiles_1d%sources(:) (dist_sources_1d) (7.9.7.1.181)
source_ref (3728)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref (dist_sources_reference) (7.9.7.1.182)
type (3729)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%description (string) (7.9.7.1.4)
index_waveid (3729)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_waveid (vecint_type) (7.9.7.1.19)
index_srcid (3729)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_srcid (vecint_type) (7.9.7.1.19)
particle (3728)	distribution%distri_vec(:)%profiles_1d%sources(:)%particle (vecflt_type) (7.9.7.1.18)
momentum (3728)	distribution%distri_vec(:)%profiles_1d%sources(:)%momentum (vecflt_type) (7.9.7.1.18)
energy (3728)	distribution%distri_vec(:)%profiles_1d%sources(:)%energy (vecflt_type) (7.9.7.1.18)
trapped (3724)	distribution%distri_vec(:)%profiles_1d%trapped (dist_profile_values_1d) (7.9.7.1.174)
state (3721)	distribution%distri_vec(:)%profiles_1d%trapped%state (dist_state_1d) (7.9.7.1.184)
dens (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens (vecflt_type) (7.9.7.1.18)
dens_fast (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens_fast (vecflt_type) (7.9.7.1.18)
pres (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres (vecflt_type) (7.9.7.1.18)
pres_fast (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast (vecflt_type) (7.9.7.1.18)
pres_fast_pa (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast_pa (vecflt_type) (7.9.7.1.18)
momentm_fast (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%momentm_fast (vecflt_type) (7.9.7.1.18)

current (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%current (vecflt_type) (7.9.7.1.18)
current_fast (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%current_fast (vecflt_type) (7.9.7.1.18)
torque_jrxb (3731)	distribution%distri_vec(:)%profiles_1d%trapped%state%torque_jrxb (vecflt_type) (7.9.7.1.18)
collisions_e (3721)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_i (3721)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_z (3721)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.7.1.178)
charge_state (3725)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.7.1.18)
sources (3721)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:) (dist_sources_1d) (7.9.7.1.181)
source_ref (3728)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref (dist_sources_reference) (7.9.7.1.182)
type (3729)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%description (string) (7.9.7.1.4)
index_waveid (3729)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_waveid (vecint_type) (7.9.7.1.19)
index_srcid (3729)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_srcid (vecint_type) (7.9.7.1.19)
particle (3728)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%particle (vecflt_type) (7.9.7.1.18)
momentum (3728)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%momentum (vecflt_type) (7.9.7.1.18)
energy (3728)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%energy (vecflt_type) (7.9.7.1.18)
co_passing (3724)	distribution%distri_vec(:)%profiles_1d%co_passing (dist_profile_values_1d) (7.9.7.1.174)
state (3721)	distribution%distri_vec(:)%profiles_1d%co_passing%state (dist_state_1d) (7.9.7.1.184)
dens (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens (vecflt_type) (7.9.7.1.18)
dens_fast (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens_fast (vecflt_type) (7.9.7.1.18)
pres (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres (vecflt_type) (7.9.7.1.18)
pres_fast (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast (vecflt_type) (7.9.7.1.18)
pres_fast_pa (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast_pa (vecflt_type) (7.9.7.1.18)
momentm_fast (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%momentm_fast (vecflt_type) (7.9.7.1.18)
current (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current (vecflt_type) (7.9.7.1.18)
current_fast (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current_fast (vecflt_type) (7.9.7.1.18)
torque_jrxb (3731)	distribution%distri_vec(:)%profiles_1d%co_passing%state%torque_jrxb (vecflt_type) (7.9.7.1.18)
collisions_e (3721)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e (dist_collisional_transfer_1d) (7.9.7.1.163)

power_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_i (3721)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_z (3721)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.7.1.178)
charge_state (3725)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.7.1.18)
sources (3721)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:) (dist_sources_1d) (7.9.7.1.181)
source_ref (3728)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref (dist_sources_reference) (7.9.7.1.182)
type (3729)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%description (string) (7.9.7.1.4)
index_waveid (3729)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.7.1.19)
index_srcid (3729)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.7.1.19)
particle (3728)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%particle (vecflt_type) (7.9.7.1.18)
momentum (3728)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%momentum (vecflt_type) (7.9.7.1.18)
energy (3728)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%energy (vecflt_type) (7.9.7.1.18)
cntr_passing (3724)	distribution%distri_vec(:)%profiles_1d%cntr_passing (dist_profile_values_1d) (7.9.7.1.174)
state (3721)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state (dist_state_1d) (7.9.7.1.184)
dens (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens (vecflt_type) (7.9.7.1.18)
dens_fast (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens_fast (vecflt_type) (7.9.7.1.18)
pres (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres (vecflt_type) (7.9.7.1.18)
pres_fast (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast (vecflt_type) (7.9.7.1.18)
pres_fast_pa (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast_pa (vecflt_type) (7.9.7.1.18)
momentm_fast (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%momentm_fast (vecflt_type) (7.9.7.1.18)
current (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current (vecflt_type) (7.9.7.1.18)
current_fast (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current_fast (vecflt_type) (7.9.7.1.18)
torque_jrxb (3731)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%torque_jrxb (vecflt_type) (7.9.7.1.18)
collisions_e (3721)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_th (vecflt_type) (7.9.7.1.18)

power_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_i (3721)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.7.1.18)
collisions_z (3721)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.7.1.178)
charge_state (3725)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.7.1.163)
power_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.7.1.18)
power_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.7.1.18)
torque_th (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.7.1.18)
torque_fast (3710)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.7.1.18)
sources (3721)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:) (dist_sources_1d) (7.9.7.1.181)
source_ref (3728)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref (dist_sources_reference) (7.9.7.1.182)
type (3729)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%description (string) (7.9.7.1.4)
index_waveid (3729)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.7.1.19)
index_srcid (3729)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.7.1.19)
particle (3728)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%particle (vecflt_type) (7.9.7.1.18)
momentum (3728)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%momentum (vecflt_type) (7.9.7.1.18)
energy (3728)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%energy (vecflt_type) (7.9.7.1.18)
profiles_2d (3734)	distribution%distri_vec(:)%profiles_2d (dist_profiles_2d) (7.9.7.1.179)
geometry (3726)	distribution%distri_vec(:)%profiles_2d%geometry (dist_geometry_2d) (7.9.7.1.170)
coord_type (3717)	distribution%distri_vec(:)%profiles_2d%geometry%coord_type (integer) (7.9.7.1.3)
r (3717)	distribution%distri_vec(:)%profiles_2d%geometry%r (matflt_type) (7.9.7.1.15)
z (3717)	distribution%distri_vec(:)%profiles_2d%geometry%z (matflt_type) (7.9.7.1.15)
rho_tor (3717)	distribution%distri_vec(:)%profiles_2d%geometry%rho_tor (matflt_type) (7.9.7.1.15)
psi (3717)	distribution%distri_vec(:)%profiles_2d%geometry%psi (matflt_type) (7.9.7.1.15)
theta_geom (3717)	distribution%distri_vec(:)%profiles_2d%geometry%theta_geom (matflt_type) (7.9.7.1.15)
theta_strt (3717)	distribution%distri_vec(:)%profiles_2d%geometry%theta_strt (matflt_type) (7.9.7.1.15)
state (3726)	distribution%distri_vec(:)%profiles_2d%state (dist_state_2d) (7.9.7.1.185)
dens (3732)	distribution%distri_vec(:)%profiles_2d%state%dens (matflt_type) (7.9.7.1.15)
dens_fast (3732)	distribution%distri_vec(:)%profiles_2d%state%dens_fast (matflt_type) (7.9.7.1.15)
pres (3732)	distribution%distri_vec(:)%profiles_2d%state%pres (matflt_type) (7.9.7.1.15)
pres_fast (3732)	distribution%distri_vec(:)%profiles_2d%state%pres_fast (matflt_type) (7.9.7.1.15)
pres_fast_pa (3732)	distribution%distri_vec(:)%profiles_2d%state%pres_fast_pa (matflt_type) (7.9.7.1.15)
momentm_fast (3732)	distribution%distri_vec(:)%profiles_2d%state%momentm_fast (matflt_type) (7.9.7.1.15)
current (3732)	distribution%distri_vec(:)%profiles_2d%state%current (matflt_type) (7.9.7.1.15)
current_fast (3732)	distribution%distri_vec(:)%profiles_2d%state%current_fast (matflt_type) (7.9.7.1.15)
torque_jrxb (3732)	distribution%distri_vec(:)%profiles_2d%state%torque_jrxb (matflt_type) (7.9.7.1.15)
collisions_e (3726)	distribution%distri_vec(:)%profiles_2d%collisions_e (dist_collisional_transfer_2d) (7.9.7.1.164)

power_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_fast (matflt_type) (7.9.7.1.15)
collisions_i (3726)	distribution%distri_vec(:)%profiles_2d%collisions_i(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_fast (matflt_type) (7.9.7.1.15)
collisions_z (3726)	distribution%distri_vec(:)%profiles_2d%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.7.1.176)
charge_state (3723)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.7.1.15)
trapped (3726)	distribution%distri_vec(:)%profiles_2d%trapped (dist_profile_values_2d) (7.9.7.1.175)
state (3722)	distribution%distri_vec(:)%profiles_2d%trapped%state (dist_state_2d) (7.9.7.1.185)
dens (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens (matflt_type) (7.9.7.1.15)
dens_fast (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens_fast (matflt_type) (7.9.7.1.15)
pres (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres (matflt_type) (7.9.7.1.15)
pres_fast (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast (matflt_type) (7.9.7.1.15)
pres_fast_pa (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast_pa (matflt_type) (7.9.7.1.15)
momentm_fast (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%momentm_fast (matflt_type) (7.9.7.1.15)
current (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%current (matflt_type) (7.9.7.1.15)
current_fast (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%current_fast (matflt_type) (7.9.7.1.15)
torque_jrxb (3732)	distribution%distri_vec(:)%profiles_2d%trapped%state%torque_jrxb (matflt_type) (7.9.7.1.15)
collisions_e (3722)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_fast (matflt_type) (7.9.7.1.15)
collisions_i (3722)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_fast (matflt_type) (7.9.7.1.15)
collisions_z (3722)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.7.1.176)
charge_state (3723)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.7.1.15)
co_passing (3726)	distribution%distri_vec(:)%profiles_2d%co_passing (dist_profile_values_2d) (7.9.7.1.175)
state (3722)	distribution%distri_vec(:)%profiles_2d%co_passing%state (dist_state_2d) (7.9.7.1.185)
dens (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens (matflt_type) (7.9.7.1.15)

dens_fast (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens_fast (matflt_type) (7.9.7.1.15)
pres (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres (matflt_type) (7.9.7.1.15)
pres_fast (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast (matflt_type) (7.9.7.1.15)
pres_fast_pa (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast_pa (matflt_type) (7.9.7.1.15)
momentm_fast (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%momentm_fast (matflt_type) (7.9.7.1.15)
current (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current (matflt_type) (7.9.7.1.15)
current_fast (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current_fast (matflt_type) (7.9.7.1.15)
torque_jrxb (3732)	distribution%distri_vec(:)%profiles_2d%co_passing%state%torque_jrxb (matflt_type) (7.9.7.1.15)
collisions_e (3722)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_fast (matflt_type) (7.9.7.1.15)
collisions_i (3722)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.7.1.15)
collisions_z (3722)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.7.1.176)
charge_state (3723)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.7.1.15)
cntr_passing (3726)	distribution%distri_vec(:)%profiles_2d%cntr_passing (dist_profile_values_2d) (7.9.7.1.175)
state (3722)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state (dist_state_2d) (7.9.7.1.185)
dens (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens (matflt_type) (7.9.7.1.15)
dens_fast (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens_fast (matflt_type) (7.9.7.1.15)
pres (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres (matflt_type) (7.9.7.1.15)
pres_fast (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast (matflt_type) (7.9.7.1.15)
pres_fast_pa (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast_pa (matflt_type) (7.9.7.1.15)
momentm_fast (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%momentm_fast (matflt_type) (7.9.7.1.15)
current (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current (matflt_type) (7.9.7.1.15)
current_fast (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current_fast (matflt_type) (7.9.7.1.15)
torque_jrxb (3732)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%torque_jrxb (matflt_type) (7.9.7.1.15)
collisions_e (3722)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_fast (matflt_type) (7.9.7.1.15)

collisions_i (3722)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.7.1.15)
collisions_z (3722)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.7.1.176)
charge_state (3723)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.7.1.164)
power_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.7.1.15)
power_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.7.1.15)
torque_th (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.7.1.15)
torque_fast (3711)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.7.1.15)
dist_func (3734)	distribution%distri_vec(:)%dist_func (dist_func) (7.9.7.1.167)
is_delta_f (3714)	distribution%distri_vec(:)%dist_func%is_delta_f (integer) (7.9.7.1.3)
markers (3714)	distribution%distri_vec(:)%dist_func%markers (weighted_markers) (7.9.7.1.526)
variable_ids (4073)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:) (identifier) (7.9.7.1.256)
id (3803)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%id (string) (7.9.7.1.4)
flag (3803)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%flag (integer) (7.9.7.1.3)
description (3803)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%description (string) (7.9.7.1.4)
coord (4073)	distribution%distri_vec(:)%dist_func%markers%coord (matflt_type) (7.9.7.1.15)
weight (4073)	distribution%distri_vec(:)%dist_func%markers%weight (vecflt_type) (7.9.7.1.18)
f_expan_topo (3714)	distribution%distri_vec(:)%dist_func%f_expan_topo(:) (dist_ff) (7.9.7.1.166)
grid_info (3713)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info (dist_grid_info) (7.9.7.1.173)
grid_type (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_type (integer) (7.9.7.1.3)
ngriddim (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%ngriddim (integer) (7.9.7.1.3)
grid_coord (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_coord (vecint_type) (7.9.7.1.19)
thin_orbits (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%thin_orbits (integer) (7.9.7.1.3)
topology (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%topology (string) (7.9.7.1.4)
omnigen_surf (3720)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:) (omnigen_surf) (7.9.7.1.324)
rz (3871)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz (rz1D) (7.9.7.1.380)
r (3927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%r (vecflt_type) (7.9.7.1.18)
z (3927)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%z (vecflt_type) (7.9.7.1.18)
s (3871)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%s (vecflt_type) (7.9.7.1.18)
topo_regions (3713)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:) (topo_regions) (7.9.7.1.479)
ind_omnigen (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%ind_omnigen (integer) (7.9.7.1.3)
dim1 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim1 (array6dflt_type) (7.9.7.1.11)
dim2 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim2 (array6dflt_type) (7.9.7.1.11)
dim3 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim3 (array6dflt_type) (7.9.7.1.11)
dim4 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim4 (array6dflt_type) (7.9.7.1.11)
dim5 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim5 (array6dflt_type) (7.9.7.1.11)
dim6 (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim6 (array6dflt_type) (7.9.7.1.11)
jacobian (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%jacobian (array6dflt_type) (7.9.7.1.11)
distfunc (4026)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%distfunc (array6dflt_type) (7.9.7.1.11)

vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.7.1.7)
g13 (3653)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.7.1.7)
g22 (3653)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.7.1.7)
g23 (3653)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.7.1.7)
g33 (3653)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.7.1.7)
jacobian (3653)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.7.1.7)
geo (3650)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:) (complexgrid_geo_global) (7.9.7.1.104)
geotype (3651)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotype (integer) (7.9.7.1.3)
geotypeid (3651)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotypeid (string) (7.9.7.1.4)
coordtype (3651)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%coordtype (vecint_type) (7.9.7.1.19)
geo_matrix (3651)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.7.1.108)

griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.7.1.7)
measure (3651)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
bases (3650)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%griduid (integer) (7.9.7.1.3)
label (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%label (string) (7.9.7.1.4)
comp (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%basis (integer) (7.9.7.1.3)
values (3767)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%matrix (array3dflt_type) (7.9.7.1.7)
parameters (3767)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters (dist_distrivec_distfunc_fexp_param) (7.9.7.1.165)
equatorial (3712)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial (equatorial_plane) (7.9.7.1.214)
r (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%r (vecflt_type) (7.9.7.1.18)
z (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%z (vecflt_type) (7.9.7.1.18)
s (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%s (vecflt_type) (7.9.7.1.18)
rho_tor (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%rho_tor (vecflt_type) (7.9.7.1.18)
psi (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%psi (vecflt_type) (7.9.7.1.18)
b_mod (3761)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%b_mod (vecflt_type) (7.9.7.1.18)
temperature (3712)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%temperature (vecflt_type) (7.9.7.1.18)
codeparam (3734)	distribution%distri_vec(:)%codeparam (codeparam) (7.9.7.1.98)

codename (3645)	distribution%distri_vec(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	distribution%distri_vec(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	distribution%distri_vec(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	distribution%distri_vec(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	distribution%distri_vec(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3583)	distribution%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	distribution%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	distribution%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	distribution%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	distribution%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	distribution%codeparam%output_flag (integer) (7.9.7.1.3)
time (3583)	distribution%time (float) (7.9.7.1.2)

7.9.7.2.15 distsource

datainfo (3584)	distsource%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	distsource%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	distsource%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	distsource%datainfo%source (string) (7.9.7.1.4)
comment (3702)	distsource%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	distsource%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	distsource%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	distsource%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	distsource%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	distsource%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	distsource%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	distsource%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	distsource%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	distsource%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	distsource%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	distsource%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	distsource%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	distsource%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	distsource%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3584)	distsource%composition (composition) (7.9.7.1.116)
amn (3663)	distsource%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	distsource%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	distsource%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	distsource%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	distsource%composition%label (vecstring_type) (7.9.7.1.20)
compositions (3584)	distsource%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	distsource%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	distsource%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	distsource%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	distsource%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	distsource%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	distsource%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	distsource%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	distsource%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	distsource%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	distsource%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	distsource%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	distsource%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	distsource%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	distsource%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	distsource%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	distsource%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	distsource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	distsource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	distsource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)

multiplicity (3665)	distsource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	distsource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	distsource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	distsource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	distsource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	distsource%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	distsource%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	distsource%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	distsource%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	distsource%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	distsource%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	distsource%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	distsource%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	distsource%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	distsource%compositions%signature%description (string) (7.9.7.1.4)
source (3584)	distsource%source(:) (distsource_source) (7.9.7.1.192)
source_id (3739)	distsource%source(:)%source_id(:) (enum_instance) (7.9.7.1.209)
type (3756)	distsource%source(:)%source_id(:)%type (identifier) (7.9.7.1.256)
id (3803)	distsource%source(:)%source_id(:)%type%id (string) (7.9.7.1.4)
flag (3803)	distsource%source(:)%source_id(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	distsource%source(:)%source_id(:)%type%description (string) (7.9.7.1.4)
name (3756)	distsource%source(:)%source_id(:)%name (string) (7.9.7.1.4)
index (3756)	distsource%source(:)%source_id(:)%index (integer) (7.9.7.1.3)
species (3739)	distsource%source(:)%species (species_reference) (7.9.7.1.432)
type (3979)	distsource%source(:)%species%type (identifier) (7.9.7.1.256)
id (3803)	distsource%source(:)%species%type%id (string) (7.9.7.1.4)
flag (3803)	distsource%source(:)%species%type%flag (integer) (7.9.7.1.3)
description (3803)	distsource%source(:)%species%type%description (string) (7.9.7.1.4)
index (3979)	distsource%source(:)%species%index (integer) (7.9.7.1.3)
gyro_type (3739)	distsource%source(:)%gyro_type (integer) (7.9.7.1.3)
global_param (3739)	distsource%source(:)%global_param (distsource_global_param) (7.9.7.1.188)
src_pow (3735)	distsource%source(:)%global_param%src_pow (exp0D) (7.9.7.1.217)
value (3764)	distsource%source(:)%global_param%src_pow%value (float) (7.9.7.1.2)
abserror (3764)	distsource%source(:)%global_param%src_pow%abserror (float) (7.9.7.1.2)
relerror (3764)	distsource%source(:)%global_param%src_pow%relerror (float) (7.9.7.1.2)
src_rate (3735)	distsource%source(:)%global_param%src_rate (exp0D) (7.9.7.1.217)
value (3764)	distsource%source(:)%global_param%src_rate%value (float) (7.9.7.1.2)
abserror (3764)	distsource%source(:)%global_param%src_rate%abserror (float) (7.9.7.1.2)
relerror (3764)	distsource%source(:)%global_param%src_rate%relerror (float) (7.9.7.1.2)
mag_axis (3735)	distsource%source(:)%global_param%mag_axis (rz0D) (7.9.7.1.379)
r (3926)	distsource%source(:)%global_param%mag_axis%r (float) (7.9.7.1.2)
z (3926)	distsource%source(:)%global_param%mag_axis%z (float) (7.9.7.1.2)
toroid_field (3735)	distsource%source(:)%global_param%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	distsource%source(:)%global_param%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	distsource%source(:)%global_param%toroid_field%b0 (float) (7.9.7.1.2)
profiles_1d (3739)	distsource%source(:)%profiles_1d (distsource_profiles_1d) (7.9.7.1.190)
rho_tor (3737)	distsource%source(:)%profiles_1d%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3737)	distsource%source(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3737)	distsource%source(:)%profiles_1d%psi (vecflt_type) (7.9.7.1.18)
volume (3737)	distsource%source(:)%profiles_1d%volume (vecflt_type) (7.9.7.1.18)
area (3737)	distsource%source(:)%profiles_1d%area (vecflt_type) (7.9.7.1.18)
pow_den (3737)	distsource%source(:)%profiles_1d%pow_den (exp1D) (7.9.7.1.218)
value (3765)	distsource%source(:)%profiles_1d%pow_den%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	distsource%source(:)%profiles_1d%pow_den%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	distsource%source(:)%profiles_1d%pow_den%relerror (vecflt_type) (7.9.7.1.18)
trq_den (3737)	distsource%source(:)%profiles_1d%trq_den (exp1D) (7.9.7.1.218)
value (3765)	distsource%source(:)%profiles_1d%trq_den%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	distsource%source(:)%profiles_1d%trq_den%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	distsource%source(:)%profiles_1d%trq_den%relerror (vecflt_type) (7.9.7.1.18)
src_rate (3737)	distsource%source(:)%profiles_1d%src_rate (exp1D) (7.9.7.1.218)
value (3765)	distsource%source(:)%profiles_1d%src_rate%value (vecflt_type) (7.9.7.1.18)

absorror (3765)	distsource%source(:)%profiles_1d%src_rate%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	distsource%source(:)%profiles_1d%src_rate%relerror (vecflt_type) (7.9.7.1.18)
profiles_2d (3739)	distsource%source(:)%profiles_2d (distsource_profiles_2d) (7.9.7.1.191)
grid_coord (3738)	distsource%source(:)%profiles_2d%grid_coord (vecint_type) (7.9.7.1.19)
dim1 (3738)	distsource%source(:)%profiles_2d%dim1 (matflt_type) (7.9.7.1.15)
dim2 (3738)	distsource%source(:)%profiles_2d%dim2 (matflt_type) (7.9.7.1.15)
g11 (3738)	distsource%source(:)%profiles_2d%g11 (matflt_type) (7.9.7.1.15)
g12 (3738)	distsource%source(:)%profiles_2d%g12 (matflt_type) (7.9.7.1.15)
g21 (3738)	distsource%source(:)%profiles_2d%g21 (matflt_type) (7.9.7.1.15)
g22 (3738)	distsource%source(:)%profiles_2d%g22 (matflt_type) (7.9.7.1.15)
pow_den (3738)	distsource%source(:)%profiles_2d%pow_den (exp2D) (7.9.7.1.219)
value (3766)	distsource%source(:)%profiles_2d%pow_den%value (matflt_type) (7.9.7.1.15)
abserror (3766)	distsource%source(:)%profiles_2d%pow_den%abserror (matflt_type) (7.9.7.1.15)
relerror (3766)	distsource%source(:)%profiles_2d%pow_den%relerror (matflt_type) (7.9.7.1.15)
src_rate (3738)	distsource%source(:)%profiles_2d%src_rate (exp2D) (7.9.7.1.219)
value (3766)	distsource%source(:)%profiles_2d%src_rate%value (matflt_type) (7.9.7.1.15)
abserror (3766)	distsource%source(:)%profiles_2d%src_rate%abserror (matflt_type) (7.9.7.1.15)
relerror (3766)	distsource%source(:)%profiles_2d%src_rate%relerror (matflt_type) (7.9.7.1.15)
line_srcprof (3739)	distsource%source(:)%line_srcprof(:) (distsource_line_src_prof) (7.9.7.1.189)
rho_tor (3736)	distsource%source(:)%line_srcprof(:)%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3736)	distsource%source(:)%line_srcprof(:)%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (3736)	distsource%source(:)%line_srcprof(:)%psi (vecflt_type) (7.9.7.1.18)
R (3736)	distsource%source(:)%line_srcprof(:)%R (vecflt_type) (7.9.7.1.18)
Z (3736)	distsource%source(:)%line_srcprof(:)%Z (vecflt_type) (7.9.7.1.18)
theta (3736)	distsource%source(:)%line_srcprof(:)%theta (vecflt_type) (7.9.7.1.18)
theta_id (3736)	distsource%source(:)%line_srcprof(:)%theta_id (vecflt_type) (7.9.7.1.18)
th2th_pol (3736)	distsource%source(:)%line_srcprof(:)%th2th_pol (matflt_type) (7.9.7.1.15)
pitch (3736)	distsource%source(:)%line_srcprof(:)%pitch (vecflt_type) (7.9.7.1.18)
energy (3736)	distsource%source(:)%line_srcprof(:)%energy (vecflt_type) (7.9.7.1.18)
ang_momentum (3736)	distsource%source(:)%line_srcprof(:)%ang_momentum (vecflt_type) (7.9.7.1.18)
src_rate (3736)	distsource%source(:)%line_srcprof(:)%src_rate (vecflt_type) (7.9.7.1.18)
source_rate (3739)	distsource%source(:)%source_rate (source_rate) (7.9.7.1.426)
grid (3973)	distsource%source(:)%source_rate%grid (complexgrid) (7.9.7.1.103)
uid (3650)	distsource%source(:)%source_rate%grid%uid (integer) (7.9.7.1.3)
id (3650)	distsource%source(:)%source_rate%grid%id (string) (7.9.7.1.4)
spaces (3650)	distsource%source(:)%source_rate%grid%spaces(:) (complexgrid_space) (7.9.7.1.112)
geotype (3659)	distsource%source(:)%source_rate%grid%spaces(:)%geotype (vecint_type) (7.9.7.1.19)
geotypeid (3659)	distsource%source(:)%source_rate%grid%spaces(:)%geotypeid (vecstring_type) (7.9.7.1.20)
coordtype (3659)	distsource%source(:)%source_rate%grid%spaces(:)%coordtype (matint_type) (7.9.7.1.16)
objects (3659)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:) (objects) (7.9.7.1.321)
boundary (3868)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.7.1.16)
neighbour (3868)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.7.1.8)
geo (3868)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.7.1.9)
measure (3868)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.7.1.15)
xpoints (3659)	distsource%source(:)%source_rate%grid%spaces(:)%xpoints (vecint_type) (7.9.7.1.19)
subgrids (3650)	distsource%source(:)%source_rate%grid%subgrids(:) (complexgrid_subgrid) (7.9.7.1.113)
id (3660)	distsource%source(:)%source_rate%grid%subgrids(:)%id (string) (7.9.7.1.4)
list (3660)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.7.1.107)
cls (3654)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.7.1.19)
indset (3654)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.7.1.105)
range (3652)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.7.1.19)
ind (3652)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.7.1.19)
ind (3654)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.7.1.16)
metric (3650)	distsource%source(:)%source_rate%grid%metric (complexgrid_metric) (7.9.7.1.106)
measure (3653)	distsource%source(:)%source_rate%grid%metric%measure(:) (complexgrid_scalar) (7.9.7.1.108)

griduid (3655)	distsource%source(:)%source_rate%grid%metric%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
g11 (3653)	distsource%source(:)%source_rate%grid%metric%g11(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g11(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g11(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g11(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g11(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.7.1.7)
g12 (3653)	distsource%source(:)%source_rate%grid%metric%g12(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g12(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g12(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g12(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g12(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.7.1.7)
g13 (3653)	distsource%source(:)%source_rate%grid%metric%g13(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g13(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g13(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g13(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g13(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.7.1.7)
g22 (3653)	distsource%source(:)%source_rate%grid%metric%g22(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g22(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g22(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g22(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g22(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.7.1.7)
g23 (3653)	distsource%source(:)%source_rate%grid%metric%g23(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g23(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g23(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g23(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g23(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.7.1.7)
g33 (3653)	distsource%source(:)%source_rate%grid%metric%g33(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%g33(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%g33(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%g33(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%g33(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.7.1.7)
jacobian (3653)	distsource%source(:)%source_rate%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.7.1.7)
geo (3650)	distsource%source(:)%source_rate%grid%geo(:) (complexgrid_geo_global) (7.9.7.1.104)
geotype (3651)	distsource%source(:)%source_rate%grid%geo(:)%geotype (integer) (7.9.7.1.3)
geotypeid (3651)	distsource%source(:)%source_rate%grid%geo(:)%geotypeid (string) (7.9.7.1.4)
coordtype (3651)	distsource%source(:)%source_rate%grid%geo(:)%coordtype (vecint_type) (7.9.7.1.19)
geo_matrix (3651)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.7.1.7)

measure (3651)	distsource%source(:)%source_rate%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
bases (3650)	distsource%source(:)%source_rate%grid%bases(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	distsource%source(:)%source_rate%grid%bases(:)%griduid (integer) (7.9.7.1.3)
label (3661)	distsource%source(:)%source_rate%grid%bases(:)%label (string) (7.9.7.1.4)
comp (3661)	distsource%source(:)%source_rate%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	distsource%source(:)%source_rate%grid%bases(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	distsource%source(:)%source_rate%grid%bases(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	distsource%source(:)%source_rate%grid%bases(:)%basis (integer) (7.9.7.1.3)
value (3973)	distsource%source(:)%source_rate%value (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	distsource%source(:)%source_rate%value%griduid (integer) (7.9.7.1.3)
subgrid (3655)	distsource%source(:)%source_rate%value%subgrid (integer) (7.9.7.1.3)
scalar (3655)	distsource%source(:)%source_rate%value%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	distsource%source(:)%source_rate%value%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	distsource%source(:)%source_rate%value%matrix (array3dflt_type) (7.9.7.1.7)
discrete (3973)	distsource%source(:)%source_rate%discrete (vecint_type) (7.9.7.1.19)
parameters (3973)	distsource%source(:)%source_rate%parameters (parameters) (7.9.7.1.332)
equatorial (3879)	distsource%source(:)%source_rate%parameters%equatorial (equatorial_plane) (7.9.7.1.214)
r (3761)	distsource%source(:)%source_rate%parameters%equatorial%r (vecflt_type) (7.9.7.1.18)
z (3761)	distsource%source(:)%source_rate%parameters%equatorial%z (vecflt_type) (7.9.7.1.18)
s (3761)	distsource%source(:)%source_rate%parameters%equatorial%s (vecflt_type) (7.9.7.1.18)
rho_tor (3761)	distsource%source(:)%source_rate%parameters%equatorial%rho_tor (vecflt_type) (7.9.7.1.18)
psi (3761)	distsource%source(:)%source_rate%parameters%equatorial%psi (vecflt_type) (7.9.7.1.18)
b_mod (3761)	distsource%source(:)%source_rate%parameters%equatorial%b_mod (vecflt_type) (7.9.7.1.18)
markers (3739)	distsource%source(:)%markers (weighted_markers) (7.9.7.1.526)
variable_ids (4073)	distsource%source(:)%markers%variable_ids(:) (identifier) (7.9.7.1.256)
id (3803)	distsource%source(:)%markers%variable_ids(:)%id (string) (7.9.7.1.4)
flag (3803)	distsource%source(:)%markers%variable_ids(:)%flag (integer) (7.9.7.1.3)
description (3803)	distsource%source(:)%markers%variable_ids(:)%description (string) (7.9.7.1.4)
coord (4073)	distsource%source(:)%markers%coord (matflt_type) (7.9.7.1.15)
weight (4073)	distsource%source(:)%markers%weight (vecflt_type) (7.9.7.1.18)
codeparam (3739)	distsource%source(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	distsource%source(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	distsource%source(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	distsource%source(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	distsource%source(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	distsource%source(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3584)	distsource%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	distsource%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	distsource%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	distsource%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	distsource%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	distsource%codeparam%output_flag (integer) (7.9.7.1.3)
time (3584)	distsource%time (float) (7.9.7.1.2)

7.9.7.2.16 ecediag

datainfo (3585)	ecediag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	ecediag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	ecediag%datainfo%putdate (string) (7.9.7.1.4)

source (3702)	ecediag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	ecediag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	ecediag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	ecediag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	ecediag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	ecediag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	ecediag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	ecediag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	ecediag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	ecediag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	ecediag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	ecediag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	ecediag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	ecediag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	ecediag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	ecediag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3585)	ecediag%setup (ecesetup) (7.9.7.1.196)
frequency (3743)	ecediag%setup%frequency (vecflt_type) (7.9.7.1.18)
los (3743)	ecediag%setup%los (setup_line_exp) (7.9.7.1.418)
pivot_point (3965)	ecediag%setup%los%pivot_point (rzphi1Dexperimental) (7.9.7.1.388)
r (3935)	ecediag%setup%los%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3935)	ecediag%setup%los%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3935)	ecediag%setup%los%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang1 (3965)	ecediag%setup%los%horchordang1 (vecflt_type) (7.9.7.1.18)
verchordang1 (3965)	ecediag%setup%los%verchordang1 (vecflt_type) (7.9.7.1.18)
width (3965)	ecediag%setup%los%width (vecflt_type) (7.9.7.1.18)
second_point (3965)	ecediag%setup%los%second_point (rzphi1Dexperimental) (7.9.7.1.388)
r (3935)	ecediag%setup%los%second_point%r (vecflt_type) (7.9.7.1.18)
z (3935)	ecediag%setup%los%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3935)	ecediag%setup%los%second_point%phi (vecflt_type) (7.9.7.1.18)
horchordang2 (3965)	ecediag%setup%los%horchordang2 (vecflt_type) (7.9.7.1.18)
verchordang2 (3965)	ecediag%setup%los%verchordang2 (vecflt_type) (7.9.7.1.18)
third_point (3965)	ecediag%setup%los%third_point (rzphi1Dexperimental) (7.9.7.1.388)
r (3935)	ecediag%setup%los%third_point%r (vecflt_type) (7.9.7.1.18)
z (3935)	ecediag%setup%los%third_point%z (vecflt_type) (7.9.7.1.18)
phi (3935)	ecediag%setup%los%third_point%phi (vecflt_type) (7.9.7.1.18)
nchordpoints (3965)	ecediag%setup%los%nchordpoints (integer) (7.9.7.1.3)
measure (3585)	ecediag%measure (ecemeasure) (7.9.7.1.195)
harmonic (3742)	ecediag%measure%harmonic (integer) (7.9.7.1.3)
position (3742)	ecediag%measure%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	ecediag%measure%position%r (exp1D) (7.9.7.1.218)
value (3765)	ecediag%measure%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ecediag%measure%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ecediag%measure%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	ecediag%measure%position%z (exp1D) (7.9.7.1.218)
value (3765)	ecediag%measure%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ecediag%measure%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ecediag%measure%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	ecediag%measure%position%phi (exp1D) (7.9.7.1.218)
value (3765)	ecediag%measure%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ecediag%measure%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ecediag%measure%position%phi%relerror (vecflt_type) (7.9.7.1.18)
te (3742)	ecediag%measure%te (exp1D) (7.9.7.1.218)
value (3765)	ecediag%measure%te%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ecediag%measure%te%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ecediag%measure%te%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3585)	ecediag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	ecediag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	ecediag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	ecediag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	ecediag%codeparam%output_diag (string) (7.9.7.1.4)

output_flag (3645)	ecediag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3585)	ecediag%time (float) (7.9.7.1.2)

7.9.7.2.17 edge

datainfo (3586)	edge%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	edge%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	edge%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	edge%datainfo%source (string) (7.9.7.1.4)
comment (3702)	edge%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	edge%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	edge%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	edge%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	edge%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	edge%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	edge%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	edge%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	edge%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	edge%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	edge%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	edge%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	edge%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	edge%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	edge%datainfo%putinfo%rights (string) (7.9.7.1.4)
grid (3586)	edge%grid (complexgrid) (7.9.7.1.103)
uid (3650)	edge%grid%uid (integer) (7.9.7.1.3)
id (3650)	edge%grid%id (string) (7.9.7.1.4)
spaces (3650)	edge%grid%spaces(:) (complexgrid_space) (7.9.7.1.112)
geotype (3659)	edge%grid%spaces(:)%geotype (vecint_type) (7.9.7.1.19)
geotypeid (3659)	edge%grid%spaces(:)%geotypeid (vecstring_type) (7.9.7.1.20)
coordtype (3659)	edge%grid%spaces(:)%coordtype (matint_type) (7.9.7.1.16)
objects (3659)	edge%grid%spaces(:)%objects(:) (objects) (7.9.7.1.321)
boundary (3868)	edge%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.7.1.16)
neighbour (3868)	edge%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.7.1.8)
geo (3868)	edge%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.7.1.9)
measure (3868)	edge%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.7.1.15)
xpoints (3659)	edge%grid%spaces(:)%xpoints (vecint_type) (7.9.7.1.19)
subgrids (3650)	edge%grid%subgrids(:) (complexgrid_subgrid) (7.9.7.1.113)
id (3660)	edge%grid%subgrids(:)%id (string) (7.9.7.1.4)
list (3660)	edge%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.7.1.107)
cls (3654)	edge%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.7.1.19)
indset (3654)	edge%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.7.1.105)
range (3652)	edge%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.7.1.19)
ind (3652)	edge%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.7.1.19)
ind (3654)	edge%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.7.1.16)
metric (3650)	edge%grid%metric (complexgrid_metric) (7.9.7.1.106)
measure (3653)	edge%grid%metric%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
g11 (3653)	edge%grid%metric%g11(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g11(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g11(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%g11(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g11(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.7.1.7)
g12 (3653)	edge%grid%metric%g12(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g12(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g12(:)%subgrid (integer) (7.9.7.1.3)

scalar (3655)	edge%grid%metric%g12(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g12(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.7.1.7)
g13 (3653)	edge%grid%metric%g13(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g13(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g13(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%g13(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g13(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.7.1.7)
g22 (3653)	edge%grid%metric%g22(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g22(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g22(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%g22(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g22(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.7.1.7)
g23 (3653)	edge%grid%metric%g23(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g23(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g23(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%g23(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g23(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.7.1.7)
g33 (3653)	edge%grid%metric%g33(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%g33(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%g33(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%g33(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%g33(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.7.1.7)
jacobian (3653)	edge%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%metric%jacobian(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%metric%jacobian(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%metric%jacobian(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.7.1.7)
geo (3650)	edge%grid%geo(:) (complexgrid_geo_global) (7.9.7.1.104)
geotype (3651)	edge%grid%geo(:)%geotype (integer) (7.9.7.1.3)
geotypeid (3651)	edge%grid%geo(:)%geotypeid (string) (7.9.7.1.4)
coordtype (3651)	edge%grid%geo(:)%coordtype (vecint_type) (7.9.7.1.19)
geo_matrix (3651)	edge%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.7.1.7)
measure (3651)	edge%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%geo(:)%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%geo(:)%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
bases (3650)	edge%grid%bases(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%grid%bases(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%grid%bases(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%grid%bases(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%grid%bases(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%grid%bases(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%grid%bases(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%grid%bases(:)%basis (integer) (7.9.7.1.3)

species (3586)	edge%species(:) (species_desc) (7.9.7.1.431)
label (3978)	edge%species(:)%label (string) (7.9.7.1.4)
amn (3978)	edge%species(:)%amn (float) (7.9.7.1.2)
zn (3978)	edge%species(:)%zn (float) (7.9.7.1.2)
zmin (3978)	edge%species(:)%zmin (float) (7.9.7.1.2)
zmax (3978)	edge%species(:)%zmax (float) (7.9.7.1.2)
compositions (3586)	edge%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	edge%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	edge%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	edge%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	edge%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	edge%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	edge%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	edge%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	edge%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	edge%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	edge%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	edge%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	edge%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	edge%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	edge%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	edge%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	edge%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	edge%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	edge%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	edge%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	edge%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	edge%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	edge%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	edge%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	edge%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	edge%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	edge%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	edge%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	edge%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	edge%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	edge%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	edge%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	edge%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	edge%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	edge%compositions%signature%description (string) (7.9.7.1.4)
fluid (3586)	edge%fluid (edge_fluid) (7.9.7.1.197)
ne (3744)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.7.1.199)
value (3746)	edge%fluid%ne%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3746)	edge%fluid%ne%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3746)	edge%fluid%ne%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ne%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ne%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ne%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)

scalar (3655)	edge%fluid%ne%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ne%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ne%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ne%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3746)	edge%fluid%ne%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ne%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ne%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ne%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ne%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ne%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ne%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3746)	edge%fluid%ne%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%ne%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ne%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ne%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ne%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ne%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%ne%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ne%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ne%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ne%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ne%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3746)	edge%fluid%ne%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ne%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ne%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ne%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ne%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ne%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
ni (3744)	edge%fluid%ni(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%ni(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%ni(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%ni(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ni(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ni(:)%flux(:)%label (string) (7.9.7.1.4)

comp (3661)	edge%fluid%ni(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ni(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ni(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ni(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%ni(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ni(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ni(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ni(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ni(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ni(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ni(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%ni(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%ni(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ni(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ni(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ni(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%ni(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ni(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ni(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ni(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%ni(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ni(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ni(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ni(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ni(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ni(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
ve (3744)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.7.1.202)
griduid (3749)	edge%fluid%ve%griduid (integer) (7.9.7.1.3)
basis (3749)	edge%fluid%ve%basis (integer) (7.9.7.1.3)
comps (3749)	edge%fluid%ve%comps(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%ve%comps(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%ve%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)

scalar (3655)	edge%fluid%ve%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%ve%comps(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ve%comps(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ve%comps(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ve%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ve%comps(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ve%comps(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ve%comps(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%ve%comps(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ve%comps(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ve%comps(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ve%comps(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ve%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ve%comps(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%ve%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%ve%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%ve%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%ve%comps(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ve%comps(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ve%comps(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ve%comps(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ve%comps(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ve%comps(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3749)	edge%fluid%ve%align (vecint_type) (7.9.7.1.19)
alignid (3749)	edge%fluid%ve%alignid (vecstring_type) (7.9.7.1.20)
vi (3744)	edge%fluid%vi(:) (edge_fluid_vector) (7.9.7.1.201)
griduid (3748)	edge%fluid%vi(:)%griduid (integer) (7.9.7.1.3)
basis (3748)	edge%fluid%vi(:)%basis (integer) (7.9.7.1.3)
align (3748)	edge%fluid%vi(:)%align (vecint_type) (7.9.7.1.19)
alignid (3748)	edge%fluid%vi(:)%alignid (vecstring_type) (7.9.7.1.20)

comps (3748)	edge%fluid%vi(:)%comps(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%vi(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%vi(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%vi(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%vi(:)%comps(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%vi(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%vi(:)%comps(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%vi(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%vi(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%vi(:)%comps(:)%source(:)%griduid (integer) (7.9.7.1.3)

subgrid (3655)	edge%fluid%vi(:)%comps(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%vi(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%vi(:)%comps(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%vi(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
te (3744)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.7.1.199)
value (3746)	edge%fluid%te%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3746)	edge%fluid%te%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3746)	edge%fluid%te%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%te%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%te%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%te%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%te%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%te%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%te%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3746)	edge%fluid%te%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%te%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%te%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%te%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%te%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%te%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%te%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3746)	edge%fluid%te%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%te%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%te%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%te%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%te%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%te%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%te%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%te%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%te%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%te%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)

alignid (3662)	edge%fluid%te%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3746)	edge%fluid%te%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
ti (3744)	edge%fluid%ti(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%ti(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%ti(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%ti(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ti(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ti(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ti(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ti(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ti(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ti(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%ti(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ti(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ti(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ti(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ti(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ti(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ti(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%ti(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%ti(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ti(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ti(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ti(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%ti(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ti(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)

vector (3655)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ti(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ti(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%ti(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
te_aniso (3744)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.7.1.202)
griduid (3749)	edge%fluid%te_aniso%griduid (integer) (7.9.7.1.3)
basis (3749)	edge%fluid%te_aniso%basis (integer) (7.9.7.1.3)
comps (3749)	edge%fluid%te_aniso%comps(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%te_aniso%comps(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%te_aniso%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%te_aniso%comps(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%te_aniso%comps(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%te_aniso%comps(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%te_aniso%comps(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%te_aniso%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)

align (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%te_aniso%comps(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%te_aniso%comps(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%te_aniso%comps(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%te_aniso%comps(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%te_aniso%comps(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%te_aniso%comps(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3749)	edge%fluid%te_aniso%align (vecint_type) (7.9.7.1.19)
alignid (3749)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.7.1.20)
ti_aniso (3744)	edge%fluid%ti_aniso(:) (edge_fluid_vector) (7.9.7.1.201)
griduid (3748)	edge%fluid%ti_aniso(:)%griduid (integer) (7.9.7.1.3)
basis (3748)	edge%fluid%ti_aniso(:)%basis (integer) (7.9.7.1.3)
align (3748)	edge%fluid%ti_aniso(:)%align (vecint_type) (7.9.7.1.19)
alignid (3748)	edge%fluid%ti_aniso(:)%alignid (vecstring_type) (7.9.7.1.20)
comps (3748)	edge%fluid%ti_aniso(:)%comps(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%ti_aniso(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%ti_aniso(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)

align (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%ti_aniso(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
po (3744)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.7.1.199)
value (3746)	edge%fluid%po%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3746)	edge%fluid%po%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3746)	edge%fluid%po%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%po%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%po%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%po%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%po%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%po%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%po%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3746)	edge%fluid%po%bndflux(:) (complexgrid_vector) (7.9.7.1.114)

griduid (3661)	edge%fluid%po%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%po%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%po%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%po%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%po%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%po%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3746)	edge%fluid%po%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%po%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%po%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%po%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%po%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%po%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%po%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%po%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%po%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%po%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%po%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3746)	edge%fluid%po%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%po%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%po%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%po%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%po%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%po%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
j (3744)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.7.1.202)
griduid (3749)	edge%fluid%j%griduid (integer) (7.9.7.1.3)
basis (3749)	edge%fluid%j%basis (integer) (7.9.7.1.3)
comps (3749)	edge%fluid%j%comps(:) (edge_fluid_scalar) (7.9.7.1.198)
value (3745)	edge%fluid%j%comps(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3745)	edge%fluid%j%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
flux (3745)	edge%fluid%j%comps(:)%flux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%j%comps(:)%flux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%j%comps(:)%flux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%j%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)

vector (3655)	edge%fluid%j%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%j%comps(:)%flux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%j%comps(:)%flux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%j%comps(:)%flux(:)%basis (integer) (7.9.7.1.3)
bndflux (3745)	edge%fluid%j%comps(:)%bndflux(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%j%comps(:)%bndflux(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%j%comps(:)%bndflux(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%j%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%j%comps(:)%bndflux(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%j%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%j%comps(:)%bndflux(:)%basis (integer) (7.9.7.1.3)
transpcoeff (3745)	edge%fluid%j%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.7.1.200)
d (3747)	edge%fluid%j%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%d%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.7.1.20)
v (3747)	edge%fluid%j%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.7.1.115)
label (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%v%label (string) (7.9.7.1.4)
comp (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.7.1.19)
alignid (3662)	edge%fluid%j%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.7.1.20)
source (3745)	edge%fluid%j%comps(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%j%comps(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%j%comps(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%j%comps(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%j%comps(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%j%comps(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3749)	edge%fluid%j%align (vecint_type) (7.9.7.1.19)
alignid (3749)	edge%fluid%j%alignid (vecstring_type) (7.9.7.1.20)
b (3744)	edge%fluid%b(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%fluid%b(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%fluid%b(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%fluid%b(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%fluid%b(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%fluid%b(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%fluid%b(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%fluid%b(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%fluid%b(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%fluid%b(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%fluid%b(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%fluid%b(:)%basis (integer) (7.9.7.1.3)
kinetic (3586)	edge%kinetic (edge_kinetic) (7.9.7.1.203)
f (3750)	edge%kinetic%f(:) (edge_kinetic_distribution) (7.9.7.1.204)
value (3751)	edge%kinetic%f(:)%value(:) (complexgrid_scalar) (7.9.7.1.108)

griduid (3655)	edge%kinetic%f(:)%value(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%kinetic%f(:)%value(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%kinetic%f(:)%value(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%kinetic%f(:)%value(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%kinetic%f(:)%value(:)%matrix (array3dflt_type) (7.9.7.1.7)
bndvalue (3751)	edge%kinetic%f(:)%bndvalue(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%kinetic%f(:)%bndvalue(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%kinetic%f(:)%bndvalue(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%kinetic%f(:)%bndvalue(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%kinetic%f(:)%bndvalue(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%kinetic%f(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.7.1.7)
fluxes (3751)	edge%kinetic%f(:)%fluxes(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	edge%kinetic%f(:)%fluxes(:)%griduid (integer) (7.9.7.1.3)
label (3661)	edge%kinetic%f(:)%fluxes(:)%label (string) (7.9.7.1.4)
comp (3661)	edge%kinetic%f(:)%fluxes(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%kinetic%f(:)%fluxes(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%kinetic%f(:)%fluxes(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%kinetic%f(:)%fluxes(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%kinetic%f(:)%fluxes(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%kinetic%f(:)%fluxes(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	edge%kinetic%f(:)%fluxes(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	edge%kinetic%f(:)%fluxes(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	edge%kinetic%f(:)%fluxes(:)%basis (integer) (7.9.7.1.3)
source (3751)	edge%kinetic%f(:)%source(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	edge%kinetic%f(:)%source(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	edge%kinetic%f(:)%source(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	edge%kinetic%f(:)%source(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	edge%kinetic%f(:)%source(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	edge%kinetic%f(:)%source(:)%matrix (array3dflt_type) (7.9.7.1.7)
codeparam (3586)	edge%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	edge%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	edge%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	edge%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	edge%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	edge%codeparam%output_flag (integer) (7.9.7.1.3)
time (3586)	edge%time (float) (7.9.7.1.2)

7.9.7.2.18 efcc

datainfo (3587)	efcc%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	efcc%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	efcc%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	efcc%datainfo%source (string) (7.9.7.1.4)
comment (3702)	efcc%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	efcc%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	efcc%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	efcc%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	efcc%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	efcc%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	efcc%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	efcc%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	efcc%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	efcc%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	efcc%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	efcc%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	efcc%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	efcc%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	efcc%datainfo%putinfo%rights (string) (7.9.7.1.4)
coil (3587)	efcc%coil(:) (coil) (7.9.7.1.101)
desc_coils (3648)	efcc%coil(:)%desc_coils (desc_coils) (7.9.7.1.156)
name (3703)	efcc%coil(:)%desc_coils%name (string) (7.9.7.1.4)

res (3703)	efcc%coil(:)%desc_coils%res (float) (7.9.7.1.2)
nturns (3703)	efcc%coil(:)%desc_coils%nturns (integer) (7.9.7.1.3)
closed (3703)	efcc%coil(:)%desc_coils%closed (string) (7.9.7.1.4)
edges (3703)	efcc%coil(:)%desc_coils%edges(:) (edges) (7.9.7.1.205)
edge_rzphi (3752)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi (rzphi1D) (7.9.7.1.386)
r (3933)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%r (vecflt_type) (7.9.7.1.18)
z (3933)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%z (vecflt_type) (7.9.7.1.18)
phi (3933)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%phi (vecflt_type) (7.9.7.1.18)
coilcurrent (3648)	efcc%coil(:)%coilcurrent (exp1D) (7.9.7.1.218)
value (3765)	efcc%coil(:)%coilcurrent%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	efcc%coil(:)%coilcurrent%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	efcc%coil(:)%coilcurrent%relerror (vecflt_type) (7.9.7.1.18)
coilvoltage (3648)	efcc%coil(:)%coilvoltage (exp1D) (7.9.7.1.218)
value (3765)	efcc%coil(:)%coilvoltage%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	efcc%coil(:)%coilvoltage%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	efcc%coil(:)%coilvoltage%relerror (vecflt_type) (7.9.7.1.18)
time (3587)	efcc%time (float) (7.9.7.1.2)
codeparam (3587)	efcc%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	efcc%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	efcc%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	efcc%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	efcc%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	efcc%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.19 equilibrium

datainfo (3588)	equilibrium%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	equilibrium%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	equilibrium%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	equilibrium%datainfo%source (string) (7.9.7.1.4)
comment (3702)	equilibrium%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	equilibrium%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	equilibrium%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	equilibrium%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	equilibrium%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	equilibrium%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	equilibrium%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	equilibrium%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	equilibrium%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	equilibrium%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	equilibrium%datainfo%putinfo%rights (string) (7.9.7.1.4)
eqconstraint (3588)	equilibrium%eqconstraint (eqconstraint) (7.9.7.1.210)
bpol (3757)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%bpol%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%bpol%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.7.1.18)
bvac_r (3757)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.7.1.212)
measured (3759)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.7.1.2)
source (3759)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.7.1.4)
time (3759)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.7.1.2)
exact (3759)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.7.1.3)
weight (3759)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.7.1.2)

sigma (3759)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.7.1.2)
calculated (3759)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.7.1.2)
chi2 (3759)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.7.1.2)
diamagflux (3757)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.7.1.212)
measured (3759)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.7.1.2)
source (3759)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.7.1.4)
time (3759)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.7.1.2)
exact (3759)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.7.1.3)
weight (3759)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.7.1.2)
sigma (3759)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.7.1.2)
calculated (3759)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.7.1.2)
chi2 (3759)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.7.1.2)
faraday (3757)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%faraday%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%faraday%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.7.1.18)
flux (3757)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%flux%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%flux%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.7.1.18)
i_plasma (3757)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.7.1.212)
measured (3759)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.7.1.2)
source (3759)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.7.1.4)
time (3759)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.7.1.2)
exact (3759)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.7.1.3)
weight (3759)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.7.1.2)
sigma (3759)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.7.1.2)
calculated (3759)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.7.1.2)
chi2 (3759)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.7.1.2)
isoflux (3757)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.7.1.262)
position (3809)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.7.1.380)
r (3927)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.7.1.18)
source (3809)	equilibrium%eqconstraint%isoflux%source (string) (7.9.7.1.4)
weight (3809)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.7.1.18)
sigma (3809)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.7.1.18)
calculated (3809)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3809)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.7.1.18)
jsurf (3757)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%jsurf%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%jsurf%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.7.1.18)
magnet_iron (3757)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.7.1.280)
mr (3827)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.7.1.4)

time (3760)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.7.1.18)
mz (3827)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.7.1.18)
mse (3757)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%mse%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%mse%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.7.1.18)
ne (3757)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%ne%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%ne%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.7.1.18)
pfcurrent (3757)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.7.1.18)
pressure (3757)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.7.1.213)
measured (3760)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.7.1.18)
source (3760)	equilibrium%eqconstraint%pressure%source (string) (7.9.7.1.4)
time (3760)	equilibrium%eqconstraint%pressure%time (float) (7.9.7.1.2)
exact (3760)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.7.1.19)
weight (3760)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.7.1.18)
sigma (3760)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.7.1.18)
calculated (3760)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.7.1.18)
chi2 (3760)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.7.1.18)
q (3757)	equilibrium%eqconstraint%q (q) (7.9.7.1.364)
qvalue (3911)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.7.1.18)
position (3911)	equilibrium%eqconstraint%q%position (rz1D) (7.9.7.1.380)
r (3927)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.7.1.18)
source (3911)	equilibrium%eqconstraint%q%source (string) (7.9.7.1.4)
exact (3911)	equilibrium%eqconstraint%q%exact (integer) (7.9.7.1.3)
weight (3911)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.7.1.18)
sigma (3911)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.7.1.18)
calculated (3911)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.7.1.18)

chi2 (3911)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.7.1.18)
xpts (3757)	equilibrium%eqconstraint%xpts (xpts) (7.9.7.1.529)
position (4076)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.7.1.380)
r (3927)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.7.1.18)
source (4076)	equilibrium%eqconstraint%xpts%source (string) (7.9.7.1.4)
weight (4076)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.7.1.18)
sigma (4076)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.7.1.18)
calculated (4076)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.7.1.18)
chi2 (4076)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.7.1.18)
eqgeometry (3588)	equilibrium%eqgeometry (eqgeometry) (7.9.7.1.211)
source (3758)	equilibrium%eqgeometry%source (string) (7.9.7.1.4)
boundarytype (3758)	equilibrium%eqgeometry%boundarytype (integer) (7.9.7.1.3)
boundary (3758)	equilibrium%eqgeometry%boundary(:) (rz1Dexp) (7.9.7.1.382)
r (3929)	equilibrium%eqgeometry%boundary(:)%r (vecflt_type) (7.9.7.1.18)
z (3929)	equilibrium%eqgeometry%boundary(:)%z (vecflt_type) (7.9.7.1.18)
geom_axis (3758)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.7.1.2)
a_minor (3758)	equilibrium%eqgeometry%a_minor (float) (7.9.7.1.2)
elongation (3758)	equilibrium%eqgeometry%elongation (float) (7.9.7.1.2)
elong_upper (3758)	equilibrium%eqgeometry%elong_upper (float) (7.9.7.1.2)
elong_lower (3758)	equilibrium%eqgeometry%elong_lower (float) (7.9.7.1.2)
tria_upper (3758)	equilibrium%eqgeometry%tria_upper (float) (7.9.7.1.2)
tria_lower (3758)	equilibrium%eqgeometry%tria_lower (float) (7.9.7.1.2)
xpts (3758)	equilibrium%eqgeometry%xpts(:) (rz1Dexp) (7.9.7.1.382)
r (3929)	equilibrium%eqgeometry%xpts(:)%r (vecflt_type) (7.9.7.1.18)
z (3929)	equilibrium%eqgeometry%xpts(:)%z (vecflt_type) (7.9.7.1.18)
left_low_st (3758)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.7.1.2)
right_low_st (3758)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.7.1.2)
left_up_st (3758)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.7.1.2)
right_up_st (3758)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.7.1.2)
active_limit (3758)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%eqgeometry%active_limit%r (float) (7.9.7.1.2)
z (3926)	equilibrium%eqgeometry%active_limit%z (float) (7.9.7.1.2)
ang_lcms_upo (3758)	equilibrium%eqgeometry%ang_lcms_upo (float) (7.9.7.1.2)
ang_lcms_upi (3758)	equilibrium%eqgeometry%ang_lcms_upi (float) (7.9.7.1.2)
ang_lcms_lwo (3758)	equilibrium%eqgeometry%ang_lcms_lwo (float) (7.9.7.1.2)
ang_lcms_lwi (3758)	equilibrium%eqgeometry%ang_lcms_lwi (float) (7.9.7.1.2)
flush (3588)	equilibrium%flush (flush) (7.9.7.1.224)
datainfo (3771)	equilibrium%flush%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	equilibrium%flush%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	equilibrium%flush%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	equilibrium%flush%datainfo%source (string) (7.9.7.1.4)
comment (3702)	equilibrium%flush%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	equilibrium%flush%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	equilibrium%flush%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	equilibrium%flush%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	equilibrium%flush%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	equilibrium%flush%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.7.1.3)

occurrence (4074)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.7.1.4)
position (3771)	equilibrium%flush%position (rz1D) (7.9.7.1.380)
r (3927)	equilibrium%flush%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	equilibrium%flush%position%z (vecflt_type) (7.9.7.1.18)
coef (3771)	equilibrium%flush%coef (matflt_type) (7.9.7.1.15)
codeparam (3771)	equilibrium%flush%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	equilibrium%flush%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	equilibrium%flush%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	equilibrium%flush%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	equilibrium%flush%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	equilibrium%flush%codeparam%output_flag (integer) (7.9.7.1.3)
global_param (3588)	equilibrium%global_param (global_param) (7.9.7.1.249)
beta_pol (3796)	equilibrium%global_param%beta_pol (float) (7.9.7.1.2)
beta_tor (3796)	equilibrium%global_param%beta_tor (float) (7.9.7.1.2)
beta_normal (3796)	equilibrium%global_param%beta_normal (float) (7.9.7.1.2)
i_plasma (3796)	equilibrium%global_param%i_plasma (float) (7.9.7.1.2)
li (3796)	equilibrium%global_param%li (float) (7.9.7.1.2)
volume (3796)	equilibrium%global_param%volume (float) (7.9.7.1.2)
area (3796)	equilibrium%global_param%area (float) (7.9.7.1.2)
psi_ax (3796)	equilibrium%global_param%psi_ax (float) (7.9.7.1.2)
psi_bound (3796)	equilibrium%global_param%psi_bound (float) (7.9.7.1.2)
mag_axis (3796)	equilibrium%global_param%mag_axis (mag_axis) (7.9.7.1.279)
position (3826)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.7.1.379)
r (3926)	equilibrium%global_param%mag_axis%position%r (float) (7.9.7.1.2)
z (3926)	equilibrium%global_param%mag_axis%position%z (float) (7.9.7.1.2)
bphi (3826)	equilibrium%global_param%mag_axis%bphi (float) (7.9.7.1.2)
q (3826)	equilibrium%global_param%mag_axis%q (float) (7.9.7.1.2)
q_95 (3796)	equilibrium%global_param%q_95 (float) (7.9.7.1.2)
q_min (3796)	equilibrium%global_param%q_min (float) (7.9.7.1.2)
toroid_field (3796)	equilibrium%global_param%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	equilibrium%global_param%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	equilibrium%global_param%toroid_field%b0 (float) (7.9.7.1.2)
w_mhd (3796)	equilibrium%global_param%w_mhd (float) (7.9.7.1.2)
gamma (3796)	equilibrium%global_param%gamma (float) (7.9.7.1.2)
profiles_1d (3588)	equilibrium%profiles_1d (profiles_1d) (7.9.7.1.361)
psi (3908)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.7.1.18)
phi (3908)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.7.1.18)
pressure (3908)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.7.1.18)
F_dia (3908)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.7.1.18)
pprime (3908)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.7.1.18)
ffprime (3908)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.7.1.18)
jphi (3908)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.7.1.18)
jparallel (3908)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.7.1.18)
q (3908)	equilibrium%profiles_1d%q (vecflt_type) (7.9.7.1.18)
shear (3908)	equilibrium%profiles_1d%shear (vecflt_type) (7.9.7.1.18)
r_inboard (3908)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.7.1.18)
r_outboard (3908)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.7.1.18)
rho_tor (3908)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.7.1.18)
dpsidrho_tor (3908)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.7.1.18)
rho_vol (3908)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.7.1.18)
beta_pol (3908)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.7.1.18)
li (3908)	equilibrium%profiles_1d%li (vecflt_type) (7.9.7.1.18)
elongation (3908)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.7.1.18)
tria_upper (3908)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.7.1.18)
tria_lower (3908)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.7.1.18)
volume (3908)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.7.1.18)

vprime (3908)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.7.1.18)
dvdrho (3908)	equilibrium%profiles_1d%dvdrho (vecflt_type) (7.9.7.1.18)
area (3908)	equilibrium%profiles_1d%area (vecflt_type) (7.9.7.1.18)
aprime (3908)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.7.1.18)
surface (3908)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.7.1.18)
ftrap (3908)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.7.1.18)
gm1 (3908)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.7.1.18)
gm2 (3908)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.7.1.18)
gm3 (3908)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.7.1.18)
gm4 (3908)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.7.1.18)
gm5 (3908)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.7.1.18)
gm6 (3908)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.7.1.18)
gm7 (3908)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.7.1.18)
gm8 (3908)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.7.1.18)
gm9 (3908)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.7.1.18)
b_av (3908)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.7.1.18)
b_min (3908)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.7.1.18)
b_max (3908)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.7.1.18)
omega (3908)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.7.1.18)
omegaprime (3908)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.7.1.18)
mach_a (3908)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.7.1.18)
phi_flow (3908)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.7.1.18)
s_flow (3908)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.7.1.18)
h_flow (3908)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.7.1.18)
rho_mass (3908)	equilibrium%profiles_1d%rho_mass (vecflt_type) (7.9.7.1.18)
profiles_2d (3588)	equilibrium%profiles_2d(:) (equilibrium_profiles_2d) (7.9.7.1.216)
grid_type (3763)	equilibrium%profiles_2d(:)%grid_type (vecstring_type) (7.9.7.1.20)
grid (3763)	equilibrium%profiles_2d(:)%grid (equilibrium_profiles2d_grid) (7.9.7.1.215)
dim1 (3762)	equilibrium%profiles_2d(:)%grid%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (3762)	equilibrium%profiles_2d(:)%grid%dim2 (vecflt_type) (7.9.7.1.18)
connect (3762)	equilibrium%profiles_2d(:)%grid%connect (matint_type) (7.9.7.1.16)
r (3763)	equilibrium%profiles_2d(:)%r (matflt_type) (7.9.7.1.15)
z (3763)	equilibrium%profiles_2d(:)%z (matflt_type) (7.9.7.1.15)
psi (3763)	equilibrium%profiles_2d(:)%psi (matflt_type) (7.9.7.1.15)
theta (3763)	equilibrium%profiles_2d(:)%theta (matflt_type) (7.9.7.1.15)
phi (3763)	equilibrium%profiles_2d(:)%phi (matflt_type) (7.9.7.1.15)
jphi (3763)	equilibrium%profiles_2d(:)%jphi (matflt_type) (7.9.7.1.15)
jpar (3763)	equilibrium%profiles_2d(:)%jpar (matflt_type) (7.9.7.1.15)
br (3763)	equilibrium%profiles_2d(:)%br (matflt_type) (7.9.7.1.15)
bz (3763)	equilibrium%profiles_2d(:)%bz (matflt_type) (7.9.7.1.15)
bphi (3763)	equilibrium%profiles_2d(:)%bphi (matflt_type) (7.9.7.1.15)
vphi (3763)	equilibrium%profiles_2d(:)%vphi (matflt_type) (7.9.7.1.15)
vtheta (3763)	equilibrium%profiles_2d(:)%vtheta (matflt_type) (7.9.7.1.15)
rho_mass (3763)	equilibrium%profiles_2d(:)%rho_mass (matflt_type) (7.9.7.1.15)
pressure (3763)	equilibrium%profiles_2d(:)%pressure (matflt_type) (7.9.7.1.15)
temperature (3763)	equilibrium%profiles_2d(:)%temperature (matflt_type) (7.9.7.1.15)
coord_sys (3588)	equilibrium%coord_sys (coord_sys) (7.9.7.1.122)
grid_type (3669)	equilibrium%coord_sys%grid_type (string) (7.9.7.1.4)
grid (3669)	equilibrium%coord_sys%grid (reggrid) (7.9.7.1.375)
dim1 (3922)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (3922)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.7.1.18)
jacobian (3669)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.7.1.15)
g_11 (3669)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.7.1.15)
g_12 (3669)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.7.1.15)
g_13 (3669)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.7.1.15)
g_22 (3669)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.7.1.15)
g_23 (3669)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.7.1.15)
g_33 (3669)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.7.1.15)
position (3669)	equilibrium%coord_sys%position (rz2D) (7.9.7.1.383)
r (3930)	equilibrium%coord_sys%position%r (matflt_type) (7.9.7.1.15)
z (3930)	equilibrium%coord_sys%position%z (matflt_type) (7.9.7.1.15)

time (3588)	equilibrium%time (float) (7.9.7.1.2)
codeparam (3588)	equilibrium%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	equilibrium%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	equilibrium%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	equilibrium%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	equilibrium%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	equilibrium%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.20 fusiondiag

datainfo (3589)	fusiondiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	fusiondiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	fusiondiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	fusiondiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	fusiondiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	fusiondiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	fusiondiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	fusiondiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	fusiondiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	fusiondiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	fusiondiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	fusiondiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	fusiondiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	fusiondiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	fusiondiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
fus_product (3589)	fusiondiag%fus_product(:) (fusiondiag_fus_product) (7.9.7.1.243)
product (3790)	fusiondiag%fus_product(:)%product (string) (7.9.7.1.4)
reaction (3790)	fusiondiag%fus_product(:)%reaction (string) (7.9.7.1.4)
collimator (3790)	fusiondiag%fus_product(:)%collimator (fusiondiag_collimator) (7.9.7.1.234)
colli_circ (3781)	fusiondiag%fus_product(:)%collimator%colli_circ(:) (fusiondiag_colli_circ) (7.9.7.1.232)
name (3779)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%name (string) (7.9.7.1.4)
setup_line (3779)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line (setup_line) (7.9.7.1.417)
pivot_point (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang1 (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang1 (vecflt_type) (7.9.7.1.18)
verchordang1 (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang1 (vecflt_type) (7.9.7.1.18)
width (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%width (vecflt_type) (7.9.7.1.18)
second_point (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%phi (vecflt_type) (7.9.7.1.18)
horchordang2 (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang2 (vecflt_type) (7.9.7.1.18)
verchordang2 (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang2 (vecflt_type) (7.9.7.1.18)
third_point (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%r (vecflt_type) (7.9.7.1.18)

z (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%phi (vecflt_type) (7.9.7.1.18)
nchordpoints (3964)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%nchordpoints (integer) (7.9.7.1.3)
colliunit (3779)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:) (fusiondiag_colliunit_circ) (7.9.7.1.235)
radius (3782)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%radius (vecflt_type) (7.9.7.1.18)
centre (3782)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%phi (vecflt_type) (7.9.7.1.18)
colli_poly (3781)	fusiondiag%fus_product(:)%collimator%colli_poly(:) (fusiondiag_colli_poly) (7.9.7.1.233)
name (3780)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%name (string) (7.9.7.1.4)
setup_line (3780)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line (setup_line) (7.9.7.1.417)
pivot_point (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang1 (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang1 (vecflt_type) (7.9.7.1.18)
verchordang1 (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang1 (vecflt_type) (7.9.7.1.18)
width (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%width (vecflt_type) (7.9.7.1.18)
second_point (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%phi (vecflt_type) (7.9.7.1.18)
horchordang2 (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang2 (vecflt_type) (7.9.7.1.18)
verchordang2 (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang2 (vecflt_type) (7.9.7.1.18)
third_point (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point (rzphi1D) (7.9.7.1.386)
r (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%phi (vecflt_type) (7.9.7.1.18)
nchordpoints (3964)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%nchordpoints (integer) (7.9.7.1.3)
colliunit (3780)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:) (fusiondiag_colliunit_poly) (7.9.7.1.236)
dimension (3783)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%dimension (float) (7.9.7.1.2)
nodes (3783)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes (rzphi2D) (7.9.7.1.389)
r (3936)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%r (matflt_type) (7.9.7.1.15)
z (3936)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%z (matflt_type) (7.9.7.1.15)
phi (3936)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%phi (matflt_type) (7.9.7.1.15)
colli_3d (3781)	fusiondiag%fus_product(:)%collimator%colli_3d(:) (fusiondiag_colli_3d) (7.9.7.1.231)
name (3778)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%name (string) (7.9.7.1.4)
voxels (3778)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:) (fusiondiag_voxels) (7.9.7.1.246)

centre (3793)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre (rzphi0D) (7.9.7.1.385)
r (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%r (float) (7.9.7.1.2)
z (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%z (float) (7.9.7.1.2)
phi (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%phi (float) (7.9.7.1.2)
direction (3793)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction (rzphi0D) (7.9.7.1.385)
r (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%r (float) (7.9.7.1.2)
z (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%z (float) (7.9.7.1.2)
phi (3932)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%phi (float) (7.9.7.1.2)
volume (3793)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%volume (float) (7.9.7.1.2)
solid_angle (3793)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%solid_angle (float) (7.9.7.1.2)
counts (3790)	fusiondiag%fus_product(:)%counts (fusiondiag_counts) (7.9.7.1.237)
units (3784)	fusiondiag%fus_product(:)%counts%units (string) (7.9.7.1.4)
ct_chords (3784)	fusiondiag%fus_product(:)%counts%ct_chords(:) (fusiondiag_ct_chords) (7.9.7.1.238)
name (3785)	fusiondiag%fus_product(:)%counts%ct_chords(:)%name (vecstring_type) (7.9.7.1.20)
energy (3785)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy (exp0D) (7.9.7.1.217)
value (3764)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%value (float) (7.9.7.1.2)
abserror (3764)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%abserror (float) (7.9.7.1.2)
relerror (3764)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%relerror (float) (7.9.7.1.2)
measure (3785)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%relerror (vecflt_type) (7.9.7.1.18)
ct_energy (3784)	fusiondiag%fus_product(:)%counts%ct_energy(:) (fusiondiag_ct_energy) (7.9.7.1.239)
energy (3786)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%relerror (vecflt_type) (7.9.7.1.18)
measure (3786)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%relerror (vecflt_type) (7.9.7.1.18)
detect_ct (3784)	fusiondiag%fus_product(:)%counts%detect_ct(:) (fusiondiag_detect_ct_energy) (7.9.7.1.240)
energy (3787)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%relerror (vecflt_type) (7.9.7.1.18)
measure (3787)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%relerror (vecflt_type) (7.9.7.1.18)
diag_func (3787)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func (diag_func) (7.9.7.1.161)
description (3708)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%description (string) (7.9.7.1.4)
transf_mat (3708)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%transf_mat (matflt_type) (7.9.7.1.15)
emissivity1d (3790)	fusiondiag%fus_product(:)%emissivity1d (fusiondiag_emissivity1d) (7.9.7.1.241)
units (3788)	fusiondiag%fus_product(:)%emissivity1d%units (string) (7.9.7.1.4)
r (3788)	fusiondiag%fus_product(:)%emissivity1d%r (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%emissivity1d%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%emissivity1d%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%emissivity1d%r%relerror (vecflt_type) (7.9.7.1.18)
z (3788)	fusiondiag%fus_product(:)%emissivity1d%z (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%emissivity1d%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	fusiondiag%fus_product(:)%emissivity1d%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%emissivity1d%z%relerror (vecflt_type) (7.9.7.1.18)
spec1d (3788)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:) (fusiondiag_spec1d) (7.9.7.1.244)
energy (3791)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy (exp0D) (7.9.7.1.217)
value (3764)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%value (float) (7.9.7.1.2)
abserror (3764)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%abserror (float) (7.9.7.1.2)
relerror (3764)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%relerror (float) (7.9.7.1.2)
measure (3791)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure (exp1D) (7.9.7.1.218)
value (3765)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%value (vecflt_type) (7.9.7.1.18)

absenor (3765)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%absenor (vecflt_type) (7.9.7.1.18)
relerror (3765)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%relerror (vecflt_type) (7.9.7.1.18)
emissivity2d (3790)	fusiondiag%fus_product(:)%emissivity2d (fusiondiag_emissivity2d) (7.9.7.1.242)
units (3789)	fusiondiag%fus_product(:)%emissivity2d%units (string) (7.9.7.1.4)
r (3789)	fusiondiag%fus_product(:)%emissivity2d%r (exp2D) (7.9.7.1.219)
value (3766)	fusiondiag%fus_product(:)%emissivity2d%r%value (matflt_type) (7.9.7.1.15)
absenor (3766)	fusiondiag%fus_product(:)%emissivity2d%r%absenor (matflt_type) (7.9.7.1.15)
relerror (3766)	fusiondiag%fus_product(:)%emissivity2d%r%relerror (matflt_type) (7.9.7.1.15)
z (3789)	fusiondiag%fus_product(:)%emissivity2d%z (exp2D) (7.9.7.1.219)
value (3766)	fusiondiag%fus_product(:)%emissivity2d%z%value (matflt_type) (7.9.7.1.15)
absenor (3766)	fusiondiag%fus_product(:)%emissivity2d%z%absenor (matflt_type) (7.9.7.1.15)
relerror (3766)	fusiondiag%fus_product(:)%emissivity2d%z%relerror (matflt_type) (7.9.7.1.15)
spec2d (3789)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:) (fusiondiag_spec2d) (7.9.7.1.245)
energy (3792)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy (exp0D) (7.9.7.1.217)
value (3764)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%value (float) (7.9.7.1.2)
absenor (3764)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%absenor (float) (7.9.7.1.2)
relerror (3764)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%relerror (float) (7.9.7.1.2)
measure (3792)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure (exp2D) (7.9.7.1.219)
value (3766)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%value (matflt_type) (7.9.7.1.15)
absenor (3766)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%absenor (matflt_type) (7.9.7.1.15)
relerror (3766)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%relerror (matflt_type) (7.9.7.1.15)
codeparam (3790)	fusiondiag%fus_product(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	fusiondiag%fus_product(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	fusiondiag%fus_product(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	fusiondiag%fus_product(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	fusiondiag%fus_product(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	fusiondiag%fus_product(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3589)	fusiondiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	fusiondiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	fusiondiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	fusiondiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	fusiondiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	fusiondiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3589)	fusiondiag%time (float) (7.9.7.1.2)

7.9.7.2.21 halphadiag

datainfo (3590)	halphadiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	halphadiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	halphadiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	halphadiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	halphadiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	halphadiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	halphadiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	halphadiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	halphadiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	halphadiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	halphadiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	halphadiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	halphadiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	halphadiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	halphadiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	halphadiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	halphadiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	halphadiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	halphadiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3590)	halphadiag%setup (halpha_setup) (7.9.7.1.251)
name (3798)	halphadiag%setup%name (vecstring_type) (7.9.7.1.20)

pivot_point (3798)	halphadiag%setup%pivot_point (rzphi1D) (7.9.7.1.386)
r (3933)	halphadiag%setup%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	halphadiag%setup%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	halphadiag%setup%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang (3798)	halphadiag%setup%horchordang (vecflt_type) (7.9.7.1.18)
verchordang (3798)	halphadiag%setup%verchordang (vecflt_type) (7.9.7.1.18)
second_point (3798)	halphadiag%setup%second_point (rzphi1D) (7.9.7.1.386)
r (3933)	halphadiag%setup%second_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	halphadiag%setup%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	halphadiag%setup%second_point%phi (vecflt_type) (7.9.7.1.18)
solidangle (3798)	halphadiag%setup%solidangle (exp1D) (7.9.7.1.218)
value (3765)	halphadiag%setup%solidangle%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	halphadiag%setup%solidangle%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	halphadiag%setup%solidangle%relerror (vecflt_type) (7.9.7.1.18)
intensity (3590)	halphadiag%intensity (exp1D) (7.9.7.1.218)
value (3765)	halphadiag%intensity%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	halphadiag%intensity%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	halphadiag%intensity%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3590)	halphadiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	halphadiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	halphadiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	halphadiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	halphadiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	halphadiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3590)	halphadiag%time (float) (7.9.7.1.2)

7.9.7.2.22 heat_sources

datainfo (3591)	heat_sources%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	heat_sources%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	heat_sources%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	heat_sources%datainfo%source (string) (7.9.7.1.4)
comment (3702)	heat_sources%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	heat_sources%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	heat_sources%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	heat_sources%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	heat_sources%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	heat_sources%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	heat_sources%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	heat_sources%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	heat_sources%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	heat_sources%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	heat_sources%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	heat_sources%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	heat_sources%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	heat_sources%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	heat_sources%datainfo%putinfo%rights (string) (7.9.7.1.4)
sources (3591)	heat_sources%sources(:) (calorimetry_heat_source) (7.9.7.1.94)
name (3641)	heat_sources%sources(:)%name (string) (7.9.7.1.4)
temp_in (3641)	heat_sources%sources(:)%temp_in (float) (7.9.7.1.2)
temp_out (3641)	heat_sources%sources(:)%temp_out (float) (7.9.7.1.2)
press_in (3641)	heat_sources%sources(:)%press_in (float) (7.9.7.1.2)
press_out (3641)	heat_sources%sources(:)%press_out (float) (7.9.7.1.2)
flow (3641)	heat_sources%sources(:)%flow (float) (7.9.7.1.2)
power (3641)	heat_sources%sources(:)%power (float) (7.9.7.1.2)
sinks (3591)	heat_sources%sinks(:) (calorimetry_heat_source) (7.9.7.1.94)
name (3641)	heat_sources%sinks(:)%name (string) (7.9.7.1.4)
temp_in (3641)	heat_sources%sinks(:)%temp_in (float) (7.9.7.1.2)
temp_out (3641)	heat_sources%sinks(:)%temp_out (float) (7.9.7.1.2)
press_in (3641)	heat_sources%sinks(:)%press_in (float) (7.9.7.1.2)
press_out (3641)	heat_sources%sinks(:)%press_out (float) (7.9.7.1.2)

flow (3641)	heat_sources%sinks(:)%flow (float) (7.9.7.1.2)
power (3641)	heat_sources%sinks(:)%power (float) (7.9.7.1.2)
codeparam (3591)	heat_sources%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	heat_sources%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	heat_sources%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	heat_sources%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	heat_sources%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	heat_sources%codeparam%output_flag (integer) (7.9.7.1.3)
time (3591)	heat_sources%time (float) (7.9.7.1.2)

7.9.7.2.23 interfdiag

datainfo (3822)	lineintegraldiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	lineintegraldiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	lineintegraldiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	lineintegraldiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	lineintegraldiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	lineintegraldiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	lineintegraldiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	lineintegraldiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	lineintegraldiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	lineintegraldiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
expression (3822)	lineintegraldiag%expression (string) (7.9.7.1.4)
setup_line (3822)	lineintegraldiag%setup_line (setup_line) (7.9.7.1.417)
pivot_point (3964)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang1 (3964)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.7.1.18)
verchordang1 (3964)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.7.1.18)
width (3964)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.7.1.18)
second_point (3964)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.7.1.18)
horchordang2 (3964)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.7.1.18)
verchordang2 (3964)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.7.1.18)
third_point (3964)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.7.1.18)
nchordpoints (3964)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.7.1.3)
measure (3822)	lineintegraldiag%measure (exp1D) (7.9.7.1.218)
value (3765)	lineintegraldiag%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3822)	lineintegraldiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	lineintegraldiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	lineintegraldiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	lineintegraldiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	lineintegraldiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	lineintegraldiag%codeparam%output_flag (integer) (7.9.7.1.3)

time (3822)	lineintegraldiag%time (float) (7.9.7.1.2)

7.9.7.2.24 ironmodel

datainfo (3593)	ironmodel%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	ironmodel%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	ironmodel%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	ironmodel%datainfo%source (string) (7.9.7.1.4)
comment (3702)	ironmodel%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	ironmodel%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	ironmodel%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	ironmodel%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	ironmodel%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	ironmodel%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	ironmodel%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	ironmodel%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	ironmodel%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	ironmodel%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	ironmodel%datainfo%putinfo%rights (string) (7.9.7.1.4)
desc_iron (3593)	ironmodel%desc_iron (desc_iron) (7.9.7.1.158)
name (3705)	ironmodel%desc_iron%name (vecstring_type) (7.9.7.1.20)
id (3705)	ironmodel%desc_iron%id (vecstring_type) (7.9.7.1.20)
permeability (3705)	ironmodel%desc_iron%permeability (permeability) (7.9.7.1.341)
b (3888)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.7.1.15)
mur (3888)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.7.1.15)
geom_iron (3705)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.7.1.248)
npoints (3795)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.7.1.19)
rzcoordinate (3795)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.7.1.383)
r (3930)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.7.1.15)
z (3930)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.7.1.15)
magnetise (3593)	ironmodel%magnetise (magnetise) (7.9.7.1.281)
mr (3828)	ironmodel%magnetise%mr (exp1D) (7.9.7.1.218)
value (3765)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.7.1.18)
mz (3828)	ironmodel%magnetise%mz (exp1D) (7.9.7.1.218)
value (3765)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3593)	ironmodel%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	ironmodel%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	ironmodel%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	ironmodel%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	ironmodel%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	ironmodel%codeparam%output_flag (integer) (7.9.7.1.3)
time (3593)	ironmodel%time (float) (7.9.7.1.2)

7.9.7.2.25 langmuirdiag

datainfo (3594)	langmuirdiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	langmuirdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	langmuirdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	langmuirdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	langmuirdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	langmuirdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	langmuirdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	langmuirdiag%datainfo%isref (integer) (7.9.7.1.3)

whatref (3702)	langmuirdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	langmuirdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	langmuirdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	langmuirdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
potential (3594)	langmuirdiag%potential (lang_measure) (7.9.7.1.265)
name (3812)	langmuirdiag%potential%name (vecstring_type) (7.9.7.1.20)
direction (3812)	langmuirdiag%potential%direction (vecstring_type) (7.9.7.1.20)
area (3812)	langmuirdiag%potential%area (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%potential%area%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.7.1.18)
position (3812)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%potential%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%potential%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%potential%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3812)	langmuirdiag%potential%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.7.1.18)
bias (3594)	langmuirdiag%bias (lang_measure) (7.9.7.1.265)
name (3812)	langmuirdiag%bias%name (vecstring_type) (7.9.7.1.20)
direction (3812)	langmuirdiag%bias%direction (vecstring_type) (7.9.7.1.20)
area (3812)	langmuirdiag%bias%area (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%bias%area%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.7.1.18)
position (3812)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%bias%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%bias%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%bias%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3812)	langmuirdiag%bias%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.7.1.18)
jsat (3594)	langmuirdiag%jsat (lang_measure) (7.9.7.1.265)
name (3812)	langmuirdiag%jsat%name (vecstring_type) (7.9.7.1.20)

direction (3812)	langmuirdiag%jsat%direction (vecstring_type) (7.9.7.1.20)
area (3812)	langmuirdiag%jsat%area (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.7.1.18)
position (3812)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%jsat%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%jsat%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%jsat%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3812)	langmuirdiag%jsat%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.7.1.18)
ne (3594)	langmuirdiag%ne (lang_derived) (7.9.7.1.264)
source (3811)	langmuirdiag%ne%source (vecstring_type) (7.9.7.1.20)
position (3811)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%ne%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%ne%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%ne%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3811)	langmuirdiag%ne%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.7.1.18)
te (3594)	langmuirdiag%te (lang_derived) (7.9.7.1.264)
source (3811)	langmuirdiag%te%source (vecstring_type) (7.9.7.1.20)
position (3811)	langmuirdiag%te%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%te%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%te%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%te%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%te%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%te%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%te%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%te%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%te%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%te%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3811)	langmuirdiag%te%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%te%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%te%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%te%measure%relerror (vecflt_type) (7.9.7.1.18)
machpar (3594)	langmuirdiag%machpar (lang_derived) (7.9.7.1.264)

source (3811)	langmuirdiag%machpar%source (vecstring_type) (7.9.7.1.20)
position (3811)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	langmuirdiag%machpar%position%r (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%machpar%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%machpar%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	langmuirdiag%machpar%position%z (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%machpar%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%machpar%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	langmuirdiag%machpar%position%phi (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%machpar%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%machpar%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3811)	langmuirdiag%machpar%measure (exp1D) (7.9.7.1.218)
value (3765)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	langmuirdiag%machpar%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	langmuirdiag%machpar%measure%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3594)	langmuirdiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	langmuirdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	langmuirdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	langmuirdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	langmuirdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	langmuirdiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3594)	langmuirdiag%time (float) (7.9.7.1.2)

7.9.7.2.26 launchs

datainfo (3595)	launchs%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	launchs%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	launchs%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	launchs%datainfo%source (string) (7.9.7.1.4)
comment (3702)	launchs%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	launchs%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	launchs%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	launchs%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	launchs%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	launchs%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	launchs%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	launchs%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	launchs%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	launchs%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	launchs%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	launchs%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	launchs%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	launchs%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	launchs%datainfo%putinfo%rights (string) (7.9.7.1.4)
name (3595)	launchs%name (vecstring_type) (7.9.7.1.20)
type (3595)	launchs%type (vecstring_type) (7.9.7.1.20)
frequency (3595)	launchs%frequency (vecflt_type) (7.9.7.1.18)
mode (3595)	launchs%mode (vecint_type) (7.9.7.1.19)
position (3595)	launchs%position (rzphi1D) (7.9.7.1.386)
r (3933)	launchs%position%r (vecflt_type) (7.9.7.1.18)
z (3933)	launchs%position%z (vecflt_type) (7.9.7.1.18)
phi (3933)	launchs%position%phi (vecflt_type) (7.9.7.1.18)
spectrum (3595)	launchs%spectrum (spectrum) (7.9.7.1.434)
phi_theta (3981)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.7.1.268)
nn_phi (3815)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.7.1.19)
nn_theta (3815)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.7.1.19)
n_phi (3815)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.7.1.15)
n_theta (3815)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.7.1.15)

power (3815)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.7.1.7)
parallel (3981)	launchs%spectrum%parallel (launchs_parallel) (7.9.7.1.267)
nn_par (3814)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.7.1.19)
n_par (3814)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.7.1.15)
power (3814)	launchs%spectrum%parallel%power (vecflt_type) (7.9.7.1.18)
beam (3595)	launchs%beam (launchs_rfbeam) (7.9.7.1.269)
spot (3816)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.7.1.271)
waist (3818)	launchs%beam%spot%waist (matflt_type) (7.9.7.1.15)
angle (3818)	launchs%beam%spot%angle (vecflt_type) (7.9.7.1.18)
phaseellipse (3816)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.7.1.270)
invcurvrad (3817)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.7.1.15)
angle (3817)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.7.1.18)
codeparam (3595)	launchs%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	launchs%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	launchs%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	launchs%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	launchs%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	launchs%codeparam%output_flag (integer) (7.9.7.1.3)
time (3595)	launchs%time (float) (7.9.7.1.2)

7.9.7.2.27 lithiumdiag

datainfo (3596)	lithiumdiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	lithiumdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	lithiumdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	lithiumdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	lithiumdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	lithiumdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	lithiumdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	lithiumdiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	lithiumdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	lithiumdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	lithiumdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	lithiumdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	lithiumdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	lithiumdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	lithiumdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	lithiumdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	lithiumdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	lithiumdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	lithiumdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3596)	lithiumdiag%setup (lithsetup) (7.9.7.1.277)
position (3824)	lithiumdiag%setup%position (rzphi1D) (7.9.7.1.386)
r (3933)	lithiumdiag%setup%position%r (vecflt_type) (7.9.7.1.18)
z (3933)	lithiumdiag%setup%position%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lithiumdiag%setup%position%phi (vecflt_type) (7.9.7.1.18)
measure (3596)	lithiumdiag%measure (lithmeasure) (7.9.7.1.276)
ne (3823)	lithiumdiag%measure%ne (exp1D) (7.9.7.1.218)
value (3765)	lithiumdiag%measure%ne%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	lithiumdiag%measure%ne%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	lithiumdiag%measure%ne%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3596)	lithiumdiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	lithiumdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	lithiumdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	lithiumdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	lithiumdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	lithiumdiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3596)	lithiumdiag%time (float) (7.9.7.1.2)

7.9.7.2.28 magdiag

datainfo (3597)	magdiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	magdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	magdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	magdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	magdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	magdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	magdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	magdiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	magdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	magdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	magdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	magdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	magdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	magdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	magdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	magdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	magdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	magdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	magdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
ip (3597)	magdiag%ip (exp0D) (7.9.7.1.217)
value (3764)	magdiag%ip%value (float) (7.9.7.1.2)
abserror (3764)	magdiag%ip%abserror (float) (7.9.7.1.2)
relerror (3764)	magdiag%ip%relerror (float) (7.9.7.1.2)
diamagflux (3597)	magdiag%diamagflux (exp0D) (7.9.7.1.217)
value (3764)	magdiag%diamagflux%value (float) (7.9.7.1.2)
abserror (3764)	magdiag%diamagflux%abserror (float) (7.9.7.1.2)
relerror (3764)	magdiag%diamagflux%relerror (float) (7.9.7.1.2)
diamagener (3597)	magdiag%diamagener (exp0D) (7.9.7.1.217)
value (3764)	magdiag%diamagener%value (float) (7.9.7.1.2)
abserror (3764)	magdiag%diamagener%abserror (float) (7.9.7.1.2)
relerror (3764)	magdiag%diamagener%relerror (float) (7.9.7.1.2)
flux_loops (3597)	magdiag%flux_loops (flux_loops) (7.9.7.1.225)
setup_floops (3772)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.7.1.416)
name (3963)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.7.1.20)
id (3963)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.7.1.20)
position (3963)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.7.1.389)
r (3936)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.7.1.15)
z (3936)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.7.1.15)
phi (3936)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.7.1.15)
npoints (3963)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.7.1.19)
measure (3772)	magdiag%flux_loops%measure (exp1D) (7.9.7.1.218)
value (3765)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.7.1.18)
bpol_probes (3597)	magdiag%bpol_probes (bpol_probes) (7.9.7.1.93)
setup_bprobe (3640)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.7.1.415)
name (3962)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.7.1.20)
id (3962)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.7.1.20)
position (3962)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.7.1.380)
r (3927)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.7.1.18)
polangle (3962)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.7.1.18)
torangle (3962)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.7.1.18)
area (3962)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.7.1.18)
length (3962)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.7.1.18)
turns (3962)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.7.1.19)
measure (3640)	magdiag%bpol_probes%measure (exp1D) (7.9.7.1.218)
value (3765)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3597)	magdiag%codeparam (codeparam) (7.9.7.1.98)

codename (3645)	magdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	magdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	magdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	magdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	magdiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3597)	magdiag%time (float) (7.9.7.1.2)

7.9.7.2.29 mhd

datainfo (3598)	mhd%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	mhd%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	mhd%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	mhd%datainfo%source (string) (7.9.7.1.4)
comment (3702)	mhd%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	mhd%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	mhd%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	mhd%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	mhd%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	mhd%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	mhd%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	mhd%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	mhd%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	mhd%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	mhd%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	mhd%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	mhd%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	mhd%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	mhd%datainfo%putinfo%rights (string) (7.9.7.1.4)
toroid_field (3598)	mhd%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	mhd%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	mhd%toroid_field%b0 (float) (7.9.7.1.2)
n (3598)	mhd%n(:) (mhd_mode) (7.9.7.1.285)
modenum (3832)	mhd%n(:)%modenum (integer) (7.9.7.1.3)
growthrate (3832)	mhd%n(:)%growthrate (float) (7.9.7.1.2)
frequency (3832)	mhd%n(:)%frequency (float) (7.9.7.1.2)
plasma (3832)	mhd%n(:)%plasma (mhd_plasma) (7.9.7.1.286)
psi (3833)	mhd%n(:)%plasma%psi (vecflt_type) (7.9.7.1.18)
rho_tor_norm (3833)	mhd%n(:)%plasma%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3833)	mhd%n(:)%plasma%rho_tor (vecflt_type) (7.9.7.1.18)
m (3833)	mhd%n(:)%plasma%m (matflt_type) (7.9.7.1.15)
disp_perp (3833)	mhd%n(:)%plasma%disp_perp (matcplx_type) (7.9.7.1.14)
disp_par (3833)	mhd%n(:)%plasma%disp_par (matcplx_type) (7.9.7.1.14)
tau_alfven (3833)	mhd%n(:)%plasma%tau_alfven (vecflt_type) (7.9.7.1.18)
tau_res (3833)	mhd%n(:)%plasma%tau_res (vecflt_type) (7.9.7.1.18)
coord_sys (3833)	mhd%n(:)%plasma%coord_sys (coord_sys) (7.9.7.1.122)
grid_type (3669)	mhd%n(:)%plasma%coord_sys%grid_type (string) (7.9.7.1.4)
grid (3669)	mhd%n(:)%plasma%coord_sys%grid (reggrid) (7.9.7.1.375)
dim1 (3922)	mhd%n(:)%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (3922)	mhd%n(:)%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.7.1.18)
jacobian (3669)	mhd%n(:)%plasma%coord_sys%jacobian (matflt_type) (7.9.7.1.15)
g_11 (3669)	mhd%n(:)%plasma%coord_sys%g_11 (matflt_type) (7.9.7.1.15)
g_12 (3669)	mhd%n(:)%plasma%coord_sys%g_12 (matflt_type) (7.9.7.1.15)
g_13 (3669)	mhd%n(:)%plasma%coord_sys%g_13 (matflt_type) (7.9.7.1.15)
g_22 (3669)	mhd%n(:)%plasma%coord_sys%g_22 (matflt_type) (7.9.7.1.15)
g_23 (3669)	mhd%n(:)%plasma%coord_sys%g_23 (matflt_type) (7.9.7.1.15)
g_33 (3669)	mhd%n(:)%plasma%coord_sys%g_33 (matflt_type) (7.9.7.1.15)
position (3669)	mhd%n(:)%plasma%coord_sys%position (rz2D) (7.9.7.1.383)
r (3930)	mhd%n(:)%plasma%coord_sys%position%r (matflt_type) (7.9.7.1.15)
z (3930)	mhd%n(:)%plasma%coord_sys%position%z (matflt_type) (7.9.7.1.15)
a_pert (3833)	mhd%n(:)%plasma%a_pert (mhd_vector) (7.9.7.1.289)
coord1 (3836)	mhd%n(:)%plasma%a_pert%coord1 (matcplx_type) (7.9.7.1.14)

coord2 (3836)	mhd%n(:)%plasma%a_pert%coord2 (matcplx_type) (7.9.7.1.14)
coord3 (3836)	mhd%n(:)%plasma%a_pert%coord3 (matcplx_type) (7.9.7.1.14)
b_pert (3833)	mhd%n(:)%plasma%b_pert (mhd_vector) (7.9.7.1.289)
coord1 (3836)	mhd%n(:)%plasma%b_pert%coord1 (matcplx_type) (7.9.7.1.14)
coord2 (3836)	mhd%n(:)%plasma%b_pert%coord2 (matcplx_type) (7.9.7.1.14)
coord3 (3836)	mhd%n(:)%plasma%b_pert%coord3 (matcplx_type) (7.9.7.1.14)
v_pert (3833)	mhd%n(:)%plasma%v_pert (mhd_vector) (7.9.7.1.289)
coord1 (3836)	mhd%n(:)%plasma%v_pert%coord1 (matcplx_type) (7.9.7.1.14)
coord2 (3836)	mhd%n(:)%plasma%v_pert%coord2 (matcplx_type) (7.9.7.1.14)
coord3 (3836)	mhd%n(:)%plasma%v_pert%coord3 (matcplx_type) (7.9.7.1.14)
p_pert (3833)	mhd%n(:)%plasma%p_pert (matcplx_type) (7.9.7.1.14)
rho_mass_per (3833)	mhd%n(:)%plasma%rho_mass_per (matcplx_type) (7.9.7.1.14)
temp_per (3833)	mhd%n(:)%plasma%temp_per (matcplx_type) (7.9.7.1.14)
vacuum (3832)	mhd%n(:)%vacuum (mhd_vacuum) (7.9.7.1.288)
m (3835)	mhd%n(:)%vacuum%m (array3dflt_type) (7.9.7.1.7)
coord_sys (3835)	mhd%n(:)%vacuum%coord_sys (coord_sys) (7.9.7.1.122)
grid_type (3669)	mhd%n(:)%vacuum%coord_sys%grid_type (string) (7.9.7.1.4)
grid (3669)	mhd%n(:)%vacuum%coord_sys%grid (reggrid) (7.9.7.1.375)
dim1 (3922)	mhd%n(:)%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (3922)	mhd%n(:)%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.7.1.18)
jacobian (3669)	mhd%n(:)%vacuum%coord_sys%jacobian (matflt_type) (7.9.7.1.15)
g_11 (3669)	mhd%n(:)%vacuum%coord_sys%g_11 (matflt_type) (7.9.7.1.15)
g_12 (3669)	mhd%n(:)%vacuum%coord_sys%g_12 (matflt_type) (7.9.7.1.15)
g_13 (3669)	mhd%n(:)%vacuum%coord_sys%g_13 (matflt_type) (7.9.7.1.15)
g_22 (3669)	mhd%n(:)%vacuum%coord_sys%g_22 (matflt_type) (7.9.7.1.15)
g_23 (3669)	mhd%n(:)%vacuum%coord_sys%g_23 (matflt_type) (7.9.7.1.15)
g_33 (3669)	mhd%n(:)%vacuum%coord_sys%g_33 (matflt_type) (7.9.7.1.15)
position (3669)	mhd%n(:)%vacuum%coord_sys%position (rz2D) (7.9.7.1.383)
r (3930)	mhd%n(:)%vacuum%coord_sys%position%r (matflt_type) (7.9.7.1.15)
z (3930)	mhd%n(:)%vacuum%coord_sys%position%z (matflt_type) (7.9.7.1.15)
a_pert (3835)	mhd%n(:)%vacuum%a_pert (mhd_vector) (7.9.7.1.289)
coord1 (3836)	mhd%n(:)%vacuum%a_pert%coord1 (matcplx_type) (7.9.7.1.14)
coord2 (3836)	mhd%n(:)%vacuum%a_pert%coord2 (matcplx_type) (7.9.7.1.14)
coord3 (3836)	mhd%n(:)%vacuum%a_pert%coord3 (matcplx_type) (7.9.7.1.14)
b_pert (3835)	mhd%n(:)%vacuum%b_pert (mhd_vector) (7.9.7.1.289)
coord1 (3836)	mhd%n(:)%vacuum%b_pert%coord1 (matcplx_type) (7.9.7.1.14)
coord2 (3836)	mhd%n(:)%vacuum%b_pert%coord2 (matcplx_type) (7.9.7.1.14)
coord3 (3836)	mhd%n(:)%vacuum%b_pert%coord3 (matcplx_type) (7.9.7.1.14)
time (3598)	mhd%time (float) (7.9.7.1.2)
codeparam (3598)	mhd%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	mhd%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	mhd%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	mhd%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	mhd%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	mhd%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.30 msediag

datainfo (3599)	msediag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	msediag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	msediag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	msediag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	msediag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	msediag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	msediag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	msediag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	msediag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	msediag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	msediag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	msediag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	msediag%datainfo%whatref%run (integer) (7.9.7.1.3)

occurrence (4074)	msediag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	msediag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	msediag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	msediag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	msediag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	msediag%datainfo%putinfo%rights (string) (7.9.7.1.4)
polarimetry (3599)	msediag%polarimetry (polarimetry) (7.9.7.1.355)
setup (3902)	msediag%polarimetry%setup (msediag_setup_polarimetry) (7.9.7.1.303)
rzgamma (3850)	msediag%polarimetry%setup%rzgamma (rzphidrdzdphi1D) (7.9.7.1.391)
r (3938)	msediag%polarimetry%setup%rzgamma%r (vecflt_type) (7.9.7.1.18)
z (3938)	msediag%polarimetry%setup%rzgamma%z (vecflt_type) (7.9.7.1.18)
phi (3938)	msediag%polarimetry%setup%rzgamma%phi (vecflt_type) (7.9.7.1.18)
dr (3938)	msediag%polarimetry%setup%rzgamma%dr (vecflt_type) (7.9.7.1.18)
dz (3938)	msediag%polarimetry%setup%rzgamma%dz (vecflt_type) (7.9.7.1.18)
dphi (3938)	msediag%polarimetry%setup%rzgamma%dphi (vecflt_type) (7.9.7.1.18)
geom_coef (3850)	msediag%polarimetry%setup%geom_coef (matflt_type) (7.9.7.1.15)
measure (3902)	msediag%polarimetry%measure (exp1D) (7.9.7.1.218)
value (3765)	msediag%polarimetry%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	msediag%polarimetry%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	msediag%polarimetry%measure%relerror (vecflt_type) (7.9.7.1.18)
spectral (3599)	msediag%spectral (spectral) (7.9.7.1.433)
emissivity (3980)	msediag%spectral%emissivity (msediag_emissivity) (7.9.7.1.298)
wavelength (3845)	msediag%spectral%emissivity%wavelength (vecflt_type) (7.9.7.1.18)
emiss_chord (3845)	msediag%spectral%emissivity%emiss_chord(:) (msediag_emiss_chord) (7.9.7.1.297)
volume (3844)	msediag%spectral%emissivity%emiss_chord(:)%volume (float) (7.9.7.1.2)
setup (3844)	msediag%spectral%emissivity%emiss_chord(:)%setup (rzphi1D) (7.9.7.1.386)
r (3933)	msediag%spectral%emissivity%emiss_chord(:)%setup%r (vecflt_type) (7.9.7.1.18)
z (3933)	msediag%spectral%emissivity%emiss_chord(:)%setup%z (vecflt_type) (7.9.7.1.18)
phi (3933)	msediag%spectral%emissivity%emiss_chord(:)%setup%phi (vecflt_type) (7.9.7.1.18)
polarization (3844)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:) (msediag_polarization) (7.9.7.1.299)
type (3846)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type (identifier) (7.9.7.1.256)
id (3803)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%id (string) (7.9.7.1.4)
flag (3803)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%description (string) (7.9.7.1.4)
spec_emiss (3846)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%spec_emiss (matflt_type) (7.9.7.1.15)
quantiaxis (3844)	msediag%spectral%emissivity%emiss_chord(:)%quantiaxis (vecflt_type) (7.9.7.1.18)
radiance (3980)	msediag%spectral%radiance (msediag_radiance) (7.9.7.1.301)
wavelength (3848)	msediag%spectral%radiance%wavelength (exp1D) (7.9.7.1.218)
value (3765)	msediag%spectral%radiance%wavelength%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	msediag%spectral%radiance%wavelength%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	msediag%spectral%radiance%wavelength%relerror (vecflt_type) (7.9.7.1.18)
radia_chord (3848)	msediag%spectral%radiance%radia_chord(:) (msediag_radia_chord) (7.9.7.1.300)
setup (3847)	msediag%spectral%radiance%radia_chord(:)%setup (msediag_setup) (7.9.7.1.302)
pivot_point (3849)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point (rzphi0D) (7.9.7.1.385)
r (3932)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%r (float) (7.9.7.1.2)
z (3932)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%z (float) (7.9.7.1.2)
phi (3932)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%phi (float) (7.9.7.1.2)
horchordang (3849)	msediag%spectral%radiance%radia_chord(:)%setup%horchordang (float) (7.9.7.1.2)
verchordang (3849)	msediag%spectral%radiance%radia_chord(:)%setup%verchordang (float) (7.9.7.1.2)
second_point (3849)	msediag%spectral%radiance%radia_chord(:)%setup%second_point (rzphi0D) (7.9.7.1.385)
r (3932)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%r (float) (7.9.7.1.2)
z (3932)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%z (float) (7.9.7.1.2)
phi (3932)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%phi (float) (7.9.7.1.2)
stokes (3847)	msediag%spectral%radiance%radia_chord(:)%stokes(:) (msediag_stokes) (7.9.7.1.304)
type (3851)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type (identifier) (7.9.7.1.256)
id (3803)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%id (string) (7.9.7.1.4)
flag (3803)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%description (string) (7.9.7.1.4)
vector (3851)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%vector (matflt_type) (7.9.7.1.15)

totradiance (3847)	msediag%spectral%radiance%radia_chord(:)%totradiance (exp1D) (7.9.7.1.218)
value (3765)	msediag%spectral%radiance%radia_chord(:)%totradiance%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	msediag%spectral%radiance%radia_chord(:)%totradiance%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	msediag%spectral%radiance%radia_chord(:)%totradiance%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3980)	msediag%spectral%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	msediag%spectral%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	msediag%spectral%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	msediag%spectral%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	msediag%spectral%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	msediag%spectral%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3599)	msediag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	msediag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	msediag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	msediag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	msediag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	msediag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3599)	msediag%time (float) (7.9.7.1.2)

7.9.7.2.31 nbi

datainfo (3600)	nbi%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	nbi%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	nbi%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	nbi%datainfo%source (string) (7.9.7.1.4)
comment (3702)	nbi%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	nbi%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	nbi%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	nbi%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	nbi%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	nbi%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	nbi%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	nbi%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	nbi%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	nbi%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	nbi%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	nbi%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	nbi%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	nbi%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	nbi%datainfo%putinfo%rights (string) (7.9.7.1.4)
nbi_unit (3600)	nbi%nbi_unit(:) (nbi_unit) (7.9.7.1.307)
name (3854)	nbi%nbi_unit(:)%name (string) (7.9.7.1.4)
inj_spec (3854)	nbi%nbi_unit(:)%inj_spec (inj_spec) (7.9.7.1.260)
amn (3807)	nbi%nbi_unit(:)%inj_spec%amn (float) (7.9.7.1.2)
zn (3807)	nbi%nbi_unit(:)%inj_spec%zn (float) (7.9.7.1.2)
pow_unit (3854)	nbi%nbi_unit(:)%pow_unit (exp0D) (7.9.7.1.217)
value (3764)	nbi%nbi_unit(:)%pow_unit%value (float) (7.9.7.1.2)
abserror (3764)	nbi%nbi_unit(:)%pow_unit%abserror (float) (7.9.7.1.2)
relerror (3764)	nbi%nbi_unit(:)%pow_unit%relerror (float) (7.9.7.1.2)
inj_eng_unit (3854)	nbi%nbi_unit(:)%inj_eng_unit (exp0D) (7.9.7.1.217)
value (3764)	nbi%nbi_unit(:)%inj_eng_unit%value (float) (7.9.7.1.2)
abserror (3764)	nbi%nbi_unit(:)%inj_eng_unit%abserror (float) (7.9.7.1.2)
relerror (3764)	nbi%nbi_unit(:)%inj_eng_unit%relerror (float) (7.9.7.1.2)
beamcurrfrac (3854)	nbi%nbi_unit(:)%beamcurrfrac (exp1D) (7.9.7.1.218)
value (3765)	nbi%nbi_unit(:)%beamcurrfrac%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	nbi%nbi_unit(:)%beamcurrfrac%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	nbi%nbi_unit(:)%beamcurrfrac%relerror (vecflt_type) (7.9.7.1.18)
beampowrfrac (3854)	nbi%nbi_unit(:)%beampowrfrac (exp1D) (7.9.7.1.218)
value (3765)	nbi%nbi_unit(:)%beampowrfrac%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	nbi%nbi_unit(:)%beampowrfrac%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	nbi%nbi_unit(:)%beampowrfrac%relerror (vecflt_type) (7.9.7.1.18)
beamletgroup (3854)	nbi%nbi_unit(:)%beamletgroup(:) (beamletgroup) (7.9.7.1.85)

position (3632)	nbi%nbi_unit(:)%beamletgroup(:)%position (rzphi0D) (7.9.7.1.385)
r (3932)	nbi%nbi_unit(:)%beamletgroup(:)%position%r (float) (7.9.7.1.2)
z (3932)	nbi%nbi_unit(:)%beamletgroup(:)%position%z (float) (7.9.7.1.2)
phi (3932)	nbi%nbi_unit(:)%beamletgroup(:)%position%phi (float) (7.9.7.1.2)
tang_rad (3632)	nbi%nbi_unit(:)%beamletgroup(:)%tang_rad (float) (7.9.7.1.2)
angle (3632)	nbi%nbi_unit(:)%beamletgroup(:)%angle (float) (7.9.7.1.2)
direction (3632)	nbi%nbi_unit(:)%beamletgroup(:)%direction (integer) (7.9.7.1.3)
width_horiz (3632)	nbi%nbi_unit(:)%beamletgroup(:)%width_horiz (float) (7.9.7.1.2)
width_vert (3632)	nbi%nbi_unit(:)%beamletgroup(:)%width_vert (float) (7.9.7.1.2)
focussing (3632)	nbi%nbi_unit(:)%beamletgroup(:)%focussing (focussing) (7.9.7.1.229)
focal_len_hz (3776)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_hz (float) (7.9.7.1.2)
focal_len_vc (3776)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_vc (float) (7.9.7.1.2)
width_min_hz (3776)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_hz (float) (7.9.7.1.2)
width_min_vc (3776)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_vc (float) (7.9.7.1.2)
divergence (3632)	nbi%nbi_unit(:)%beamletgroup(:)%divergence (divergence) (7.9.7.1.193)
frac_divcomp (3740)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%frac_divcomp (vecflt_type) (7.9.7.1.18)
div_vert (3740)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_vert (vecflt_type) (7.9.7.1.18)
div_horiz (3740)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_horiz (vecflt_type) (7.9.7.1.18)
beamlets (3632)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets (beamlets) (7.9.7.1.86)
position (3633)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position (rzphi1D) (7.9.7.1.386)
r (3933)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%r (vecflt_type) (7.9.7.1.18)
z (3933)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%z (vecflt_type) (7.9.7.1.18)
phi (3933)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%phi (vecflt_type) (7.9.7.1.18)
tang_rad_blt (3633)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%tang_rad_blt (vecflt_type) (7.9.7.1.18)
angle_blt (3633)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%angle_blt (vecflt_type) (7.9.7.1.18)
pow_frc_blt (3633)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%pow_frc_blt (vecflt_type) (7.9.7.1.18)
wall (3854)	nbi%nbi_unit(:)%wall (nbi_nbi_unit_wall) (7.9.7.1.305)
surface (3852)	nbi%nbi_unit(:)%wall%surface (nbi_nbi_unit_wall_surface) (7.9.7.1.306)
triangle (3853)	nbi%nbi_unit(:)%wall%surface%triangle(:) (trianglexyz) (7.9.7.1.487)
point1 (4034)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%z (float) (7.9.7.1.2)
point2 (4034)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%z (float) (7.9.7.1.2)
point3 (4034)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%z (float) (7.9.7.1.2)
rectangle (3853)	nbi%nbi_unit(:)%wall%surface%rectangle(:) (rectanglexyz) (7.9.7.1.367)
point01 (3914)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%z (float) (7.9.7.1.2)
point11 (3914)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%z (float) (7.9.7.1.2)
point10 (3914)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%z (float) (7.9.7.1.2)
collimator (3852)	nbi%nbi_unit(:)%wall%collimator(:) (flat_polygon) (7.9.7.1.223)
origin (3770)	nbi%nbi_unit(:)%wall%collimator(:)%origin (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%collimator(:)%origin%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%collimator(:)%origin%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%collimator(:)%origin%z (float) (7.9.7.1.2)
basis1 (3770)	nbi%nbi_unit(:)%wall%collimator(:)%basis1 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%x (float) (7.9.7.1.2)

y (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%z (float) (7.9.7.1.2)
basis2 (3770)	nbi%nbi_unit(:)%wall%collimator(:)%basis2 (xyz0D) (7.9.7.1.530)
x (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%x (float) (7.9.7.1.2)
y (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%y (float) (7.9.7.1.2)
z (4077)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%z (float) (7.9.7.1.2)
coord1 (3770)	nbi%nbi_unit(:)%wall%collimator(:)%coord1 (vecflt_type) (7.9.7.1.18)
coord2 (3770)	nbi%nbi_unit(:)%wall%collimator(:)%coord2 (vecflt_type) (7.9.7.1.18)
codeparam (3854)	nbi%nbi_unit(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	nbi%nbi_unit(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	nbi%nbi_unit(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	nbi%nbi_unit(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	nbi%nbi_unit(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	nbi%nbi_unit(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3600)	nbi%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	nbi%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	nbi%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	nbi%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	nbi%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	nbi%codeparam%output_flag (integer) (7.9.7.1.3)
time (3600)	nbi%time (float) (7.9.7.1.2)

7.9.7.2.32 neoclassic

datainfo (3601)	neoclassic%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	neoclassic%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	neoclassic%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	neoclassic%datainfo%source (string) (7.9.7.1.4)
comment (3702)	neoclassic%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	neoclassic%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	neoclassic%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	neoclassic%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	neoclassic%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	neoclassic%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	neoclassic%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	neoclassic%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	neoclassic%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	neoclassic%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	neoclassic%datainfo%putinfo%rights (string) (7.9.7.1.4)
rho_tor_norm (3601)	neoclassic%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3601)	neoclassic%rho_tor (vecflt_type) (7.9.7.1.18)
composition (3601)	neoclassic%composition (composition) (7.9.7.1.116)
amn (3663)	neoclassic%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	neoclassic%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	neoclassic%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	neoclassic%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	neoclassic%composition%label (vecstring_type) (7.9.7.1.20)
desc_impur (3601)	neoclassic%desc_impur (desc_impur) (7.9.7.1.157)
amn (3704)	neoclassic%desc_impur%amn (vecflt_type) (7.9.7.1.18)
zn (3704)	neoclassic%desc_impur%zn (vecint_type) (7.9.7.1.19)
i_ion (3704)	neoclassic%desc_impur%i_ion (vecint_type) (7.9.7.1.19)
nzimp (3704)	neoclassic%desc_impur%nzimp (vecint_type) (7.9.7.1.19)
zmin (3704)	neoclassic%desc_impur%zmin (matint_type) (7.9.7.1.16)
zmax (3704)	neoclassic%desc_impur%zmax (matint_type) (7.9.7.1.16)
label (3704)	neoclassic%desc_impur%label (vecstring_type) (7.9.7.1.20)
compositions (3601)	neoclassic%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	neoclassic%compositions%nuclei(:) (nuclei) (7.9.7.1.320)

zn (3867)	neoclassic%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	neoclassic%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	neoclassic%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	neoclassic%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	neoclassic%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	neoclassic%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	neoclassic%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	neoclassic%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	neoclassic%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	neoclassic%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	neoclassic%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	neoclassic%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	neoclassic%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	neoclassic%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	neoclassic%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	neoclassic%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	neoclassic%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	neoclassic%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	neoclassic%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	neoclassic%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	neoclassic%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	neoclassic%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	neoclassic%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	neoclassic%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	neoclassic%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	neoclassic%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	neoclassic%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	neoclassic%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	neoclassic%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	neoclassic%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	neoclassic%compositions%signature%description (string) (7.9.7.1.4)
ni_neo (3601)	neoclassic%ni_neo (transcoefion) (7.9.7.1.484)
diff_eff (4031)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4031)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4031)	neoclassic%ni_neo%exchange (matflt_type) (7.9.7.1.15)
qgi (4031)	neoclassic%ni_neo%qgi (matflt_type) (7.9.7.1.15)
flux (4031)	neoclassic%ni_neo%flux (matflt_type) (7.9.7.1.15)
off_diagonal (4031)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.7.1.323)
d_ni (3870)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.7.1.7)
d_ti (3870)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.7.1.7)
d_ne (3870)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.7.1.15)
d_te (3870)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.7.1.15)
d_epar (3870)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.7.1.15)
d_mtor (3870)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.7.1.15)
flag (4031)	neoclassic%ni_neo%flag (integer) (7.9.7.1.3)
ne_neo (3601)	neoclassic%ne_neo (transcoefel) (7.9.7.1.482)
diff_eff (4029)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.7.1.18)
vconv_eff (4029)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.7.1.18)
flux (4029)	neoclassic%ne_neo%flux (vecflt_type) (7.9.7.1.18)
off_diagonal (4029)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.7.1.322)
d_ni (3869)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.7.1.15)
d_ti (3869)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.7.1.15)
d_ne (3869)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.7.1.18)
d_te (3869)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.7.1.18)
d_epar (3869)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.7.1.18)
d_mtor (3869)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.7.1.18)
flag (4029)	neoclassic%ne_neo%flag (integer) (7.9.7.1.3)
nz_neo (3601)	neoclassic%nz_neo(:) (transcoefimp) (7.9.7.1.483)
diff_eff (4030)	neoclassic%nz_neo(:)%diff_eff (matflt_type) (7.9.7.1.15)

vconv_eff (4030)	neoclassic%nz_neo(:)%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4030)	neoclassic%nz_neo(:)%exchange (matflt_type) (7.9.7.1.15)
flux (4030)	neoclassic%nz_neo(:)%flux (matflt_type) (7.9.7.1.15)
flag (4030)	neoclassic%nz_neo(:)%flag (integer) (7.9.7.1.3)
ti_neo (3601)	neoclassic%ti_neo (transcoefion) (7.9.7.1.484)
diff_eff (4031)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4031)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4031)	neoclassic%ti_neo%exchange (matflt_type) (7.9.7.1.15)
qgi (4031)	neoclassic%ti_neo%qgi (matflt_type) (7.9.7.1.15)
flux (4031)	neoclassic%ti_neo%flux (matflt_type) (7.9.7.1.15)
off_diagonal (4031)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.7.1.323)
d_ni (3870)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.7.1.7)
d_ti (3870)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.7.1.7)
d_ne (3870)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.7.1.15)
d_te (3870)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.7.1.15)
d_epar (3870)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.7.1.15)
d_mtor (3870)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.7.1.15)
flag (4031)	neoclassic%ti_neo%flag (integer) (7.9.7.1.3)
te_neo (3601)	neoclassic%te_neo (transcoefel) (7.9.7.1.482)
diff_eff (4029)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.7.1.18)
vconv_eff (4029)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.7.1.18)
flux (4029)	neoclassic%te_neo%flux (vecflt_type) (7.9.7.1.18)
off_diagonal (4029)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.7.1.322)
d_ni (3869)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.7.1.15)
d_ti (3869)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.7.1.15)
d_ne (3869)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.7.1.18)
d_te (3869)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.7.1.18)
d_epar (3869)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.7.1.18)
d_mtor (3869)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.7.1.18)
flag (4029)	neoclassic%te_neo%flag (integer) (7.9.7.1.3)
tz_neo (3601)	neoclassic%tz_neo(:) (transcoefimp) (7.9.7.1.483)
diff_eff (4030)	neoclassic%tz_neo(:)%diff_eff (matflt_type) (7.9.7.1.15)
vconv_eff (4030)	neoclassic%tz_neo(:)%vconv_eff (matflt_type) (7.9.7.1.15)
exchange (4030)	neoclassic%tz_neo(:)%exchange (matflt_type) (7.9.7.1.15)
flux (4030)	neoclassic%tz_neo(:)%flux (matflt_type) (7.9.7.1.15)
flag (4030)	neoclassic%tz_neo(:)%flag (integer) (7.9.7.1.3)
mtor_neo (3601)	neoclassic%mtor_neo (transcoefel) (7.9.7.1.482)
diff_eff (4029)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.7.1.18)
vconv_eff (4029)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.7.1.18)
flux (4029)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.7.1.18)
off_diagonal (4029)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.7.1.322)
d_ni (3869)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.7.1.15)
d_ti (3869)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.7.1.15)
d_ne (3869)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.7.1.18)
d_te (3869)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.7.1.18)
d_epar (3869)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.7.1.18)
d_mtor (3869)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.7.1.18)
flag (4029)	neoclassic%mtor_neo%flag (integer) (7.9.7.1.3)
sigma (3601)	neoclassic%sigma (vecflt_type) (7.9.7.1.18)
jboot (3601)	neoclassic%jboot (vecflt_type) (7.9.7.1.18)
er (3601)	neoclassic%er (vecflt_type) (7.9.7.1.18)
vpol (3601)	neoclassic%vpol (matflt_type) (7.9.7.1.15)
vtor (3601)	neoclassic%vtor (matflt_type) (7.9.7.1.15)
mach (3601)	neoclassic%mach (matflt_type) (7.9.7.1.15)
utheta_e (3601)	neoclassic%utheta_e (vecflt_type) (7.9.7.1.18)
utheta_i (3601)	neoclassic%utheta_i (matflt_type) (7.9.7.1.15)
viscosity_par (3601)	neoclassic%viscosity_par (matflt_type) (7.9.7.1.15)
impurity (3601)	neoclassic%impurity(:) (neoclassic_impurity) (7.9.7.1.309)
utheta_z (3856)	neoclassic%impurity(:)%utheta_z (matflt_type) (7.9.7.1.15)
fext (3601)	neoclassic%fext (array3dflt_type) (7.9.7.1.7)
jext (3601)	neoclassic%jext (vecflt_type) (7.9.7.1.18)

time (3601)	neoclassic%time (float) (7.9.7.1.2)
codeparam (3601)	neoclassic%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	neoclassic%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	neoclassic%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	neoclassic%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	neoclassic%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	neoclassic%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.33 ntm

datainfo (3602)	ntm%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	ntm%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	ntm%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	ntm%datainfo%source (string) (7.9.7.1.4)
comment (3702)	ntm%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	ntm%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	ntm%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	ntm%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	ntm%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	ntm%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	ntm%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	ntm%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	ntm%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	ntm%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	ntm%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	ntm%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	ntm%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	ntm%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	ntm%datainfo%putinfo%rights (string) (7.9.7.1.4)
mode (3602)	ntm%mode(:) (ntm_mode) (7.9.7.1.314)
onset (3861)	ntm%mode(:)%onset (ntm_mode_onset) (7.9.7.1.319)
w (3866)	ntm%mode(:)%onset%w (float) (7.9.7.1.2)
time_onset (3866)	ntm%mode(:)%onset%time_onset (float) (7.9.7.1.2)
time_offset (3866)	ntm%mode(:)%onset%time_offset (float) (7.9.7.1.2)
phase (3866)	ntm%mode(:)%onset%phase (float) (7.9.7.1.2)
n (3866)	ntm%mode(:)%onset%n (integer) (7.9.7.1.3)
m (3866)	ntm%mode(:)%onset%m (integer) (7.9.7.1.3)
description (3866)	ntm%mode(:)%onset%description (string) (7.9.7.1.4)
full_evol (3861)	ntm%mode(:)%full_evol (ntm_mode_full_evol) (7.9.7.1.317)
time_evol (3864)	ntm%mode(:)%full_evol%time_evol (vecflt_type) (7.9.7.1.18)
w (3864)	ntm%mode(:)%full_evol%w (vecflt_type) (7.9.7.1.18)
dwdt (3864)	ntm%mode(:)%full_evol%dwdt (vecflt_type) (7.9.7.1.18)
phase (3864)	ntm%mode(:)%full_evol%phase (vecflt_type) (7.9.7.1.18)
dphasedt (3864)	ntm%mode(:)%full_evol%dphasedt (vecflt_type) (7.9.7.1.18)
frequency (3864)	ntm%mode(:)%full_evol%frequency (vecflt_type) (7.9.7.1.18)
dfrequencydt (3864)	ntm%mode(:)%full_evol%dfrequencydt (vecflt_type) (7.9.7.1.18)
island (3864)	ntm%mode(:)%full_evol%island (ntm_mode_full_evol_island) (7.9.7.1.318)
geometry (3865)	ntm%mode(:)%full_evol%island%geometry (matflt_type) (7.9.7.1.15)
coord_values (3865)	ntm%mode(:)%full_evol%island%coord_values (matflt_type) (7.9.7.1.15)
coord_desc (3865)	ntm%mode(:)%full_evol%island%coord_desc (string) (7.9.7.1.4)
n (3864)	ntm%mode(:)%full_evol%n (integer) (7.9.7.1.3)
m (3864)	ntm%mode(:)%full_evol%m (integer) (7.9.7.1.3)
deltaw_value (3864)	ntm%mode(:)%full_evol%deltaw_value (matflt_type) (7.9.7.1.15)
deltaw_name (3864)	ntm%mode(:)%full_evol%deltaw_name (vecstring_type) (7.9.7.1.20)
torque_value (3864)	ntm%mode(:)%full_evol%torque_value (matflt_type) (7.9.7.1.15)
torque_name (3864)	ntm%mode(:)%full_evol%torque_name (vecstring_type) (7.9.7.1.20)
delta_diff (3864)	ntm%mode(:)%full_evol%delta_diff (matflt_type) (7.9.7.1.15)
description (3864)	ntm%mode(:)%full_evol%description (string) (7.9.7.1.4)
rho_tor (3864)	ntm%mode(:)%full_evol%rho_tor (vecflt_type) (7.9.7.1.18)
evolution (3861)	ntm%mode(:)%evolution (ntm_mode_evolution) (7.9.7.1.315)
w (3862)	ntm%mode(:)%evolution%w (float) (7.9.7.1.2)

dwdt (3862)	ntm%mode(:)%evolution%dwdt (float) (7.9.7.1.2)
phase (3862)	ntm%mode(:)%evolution%phase (float) (7.9.7.1.2)
dphasedt (3862)	ntm%mode(:)%evolution%dphasedt (float) (7.9.7.1.2)
frequency (3862)	ntm%mode(:)%evolution%frequency (float) (7.9.7.1.2)
dfrequencydt (3862)	ntm%mode(:)%evolution%dfrequencydt (float) (7.9.7.1.2)
island (3862)	ntm%mode(:)%evolution%island (ntm_mode_evolution_island) (7.9.7.1.316)
geometry (3863)	ntm%mode(:)%evolution%island%geometry (vecflt_type) (7.9.7.1.18)
coord_values (3863)	ntm%mode(:)%evolution%island%coord_values (vecflt_type) (7.9.7.1.18)
coord_desc (3863)	ntm%mode(:)%evolution%island%coord_desc (string) (7.9.7.1.4)
n (3862)	ntm%mode(:)%evolution%n (integer) (7.9.7.1.3)
m (3862)	ntm%mode(:)%evolution%m (integer) (7.9.7.1.3)
deltaw_value (3862)	ntm%mode(:)%evolution%deltaw_value (vecflt_type) (7.9.7.1.18)
deltaw_name (3862)	ntm%mode(:)%evolution%deltaw_name (vecstring_type) (7.9.7.1.20)
torque_value (3862)	ntm%mode(:)%evolution%torque_value (vecflt_type) (7.9.7.1.18)
torque_name (3862)	ntm%mode(:)%evolution%torque_name (vecstring_type) (7.9.7.1.20)
delta_diff (3862)	ntm%mode(:)%evolution%delta_diff (vecflt_type) (7.9.7.1.18)
description (3862)	ntm%mode(:)%evolution%description (string) (7.9.7.1.4)
rho_tor (3862)	ntm%mode(:)%evolution%rho_tor (float) (7.9.7.1.2)
time (3602)	ntm%time (float) (7.9.7.1.2)
codeparam (3602)	ntm%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	ntm%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	ntm%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	ntm%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	ntm%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	ntm%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.34 orbit

datainfo (3603)	orbit%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	orbit%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	orbit%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	orbit%datainfo%source (string) (7.9.7.1.4)
comment (3702)	orbit%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	orbit%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	orbit%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	orbit%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	orbit%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	orbit%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	orbit%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	orbit%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	orbit%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	orbit%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	orbit%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	orbit%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	orbit%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	orbit%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	orbit%datainfo%putinfo%rights (string) (7.9.7.1.4)
com (3603)	orbit%com (com) (7.9.7.1.102)
amn (3649)	orbit%com%amn (float) (7.9.7.1.2)
zion (3649)	orbit%com%zion (float) (7.9.7.1.2)
energy (3649)	orbit%com%energy (vecflt_type) (7.9.7.1.18)
magn_mom (3649)	orbit%com%magn_mom (vecflt_type) (7.9.7.1.18)
p_phi (3649)	orbit%com%p_phi (vecflt_type) (7.9.7.1.18)
sigma (3649)	orbit%com%sigma (vecint_type) (7.9.7.1.19)
trace (3603)	orbit%trace (trace) (7.9.7.1.481)
time_orb (4028)	orbit%trace%time_orb (matflt_type) (7.9.7.1.15)
ntorb (4028)	orbit%trace%ntorb (vecint_type) (7.9.7.1.19)
r (4028)	orbit%trace%r (matflt_type) (7.9.7.1.15)
z (4028)	orbit%trace%z (matflt_type) (7.9.7.1.15)
phi (4028)	orbit%trace%phi (matflt_type) (7.9.7.1.15)
psi (4028)	orbit%trace%psi (matflt_type) (7.9.7.1.15)

theta_b (4028)	orbit%trace%theta_b (matflt_type) (7.9.7.1.15)
v_parallel (4028)	orbit%trace%v_parallel (matflt_type) (7.9.7.1.15)
v_perp (4028)	orbit%trace%v_perp (matflt_type) (7.9.7.1.15)
global_param (3603)	orbit%global_param (orbit_global_param) (7.9.7.1.325)
orbit_type (3872)	orbit%global_param%orbit_type (vecint_type) (7.9.7.1.19)
omega_b (3872)	orbit%global_param%omega_b (vecflt_type) (7.9.7.1.18)
omega_phi (3872)	orbit%global_param%omega_phi (vecflt_type) (7.9.7.1.18)
omega_c_av (3872)	orbit%global_param%omega_c_av (vecflt_type) (7.9.7.1.18)
special_pos (3872)	orbit%global_param%special_pos (orbit_special_pos) (7.9.7.1.328)
midplane (3875)	orbit%global_param%special_pos%midplane (orbit_midplane) (7.9.7.1.326)
outer (3873)	orbit%global_param%special_pos%midplane%outer (orbit_pos) (7.9.7.1.327)
r (3874)	orbit%global_param%special_pos%midplane%outer%r (vecflt_type) (7.9.7.1.18)
z (3874)	orbit%global_param%special_pos%midplane%outer%z (vecflt_type) (7.9.7.1.18)
phi (3874)	orbit%global_param%special_pos%midplane%outer%phi (vecflt_type) (7.9.7.1.18)
psi (3874)	orbit%global_param%special_pos%midplane%outer%psi (vecflt_type) (7.9.7.1.18)
theta_b (3874)	orbit%global_param%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.7.1.18)
inner (3873)	orbit%global_param%special_pos%midplane%inner (orbit_pos) (7.9.7.1.327)
r (3874)	orbit%global_param%special_pos%midplane%inner%r (vecflt_type) (7.9.7.1.18)
z (3874)	orbit%global_param%special_pos%midplane%inner%z (vecflt_type) (7.9.7.1.18)
phi (3874)	orbit%global_param%special_pos%midplane%inner%phi (vecflt_type) (7.9.7.1.18)
psi (3874)	orbit%global_param%special_pos%midplane%inner%psi (vecflt_type) (7.9.7.1.18)
theta_b (3874)	orbit%global_param%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.7.1.18)
turning_pts (3875)	orbit%global_param%special_pos%turning_pts (orbit_turning_pts) (7.9.7.1.329)
upper (3876)	orbit%global_param%special_pos%turning_pts%upper (orbit_pos) (7.9.7.1.327)
r (3874)	orbit%global_param%special_pos%turning_pts%upper%r (vecflt_type) (7.9.7.1.18)
z (3874)	orbit%global_param%special_pos%turning_pts%upper%z (vecflt_type) (7.9.7.1.18)
phi (3874)	orbit%global_param%special_pos%turning_pts%upper%phi (vecflt_type) (7.9.7.1.18)
psi (3874)	orbit%global_param%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.7.1.18)
theta_b (3874)	orbit%global_param%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.7.1.18)
lower (3876)	orbit%global_param%special_pos%turning_pts%lower (orbit_pos) (7.9.7.1.327)
r (3874)	orbit%global_param%special_pos%turning_pts%lower%r (vecflt_type) (7.9.7.1.18)
z (3874)	orbit%global_param%special_pos%turning_pts%lower%z (vecflt_type) (7.9.7.1.18)
phi (3874)	orbit%global_param%special_pos%turning_pts%lower%phi (vecflt_type) (7.9.7.1.18)
psi (3874)	orbit%global_param%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.7.1.18)
theta_b (3874)	orbit%global_param%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.7.1.18)
codeparam (3603)	orbit%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	orbit%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	orbit%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	orbit%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	orbit%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	orbit%codeparam%output_flag (integer) (7.9.7.1.3)
time (3603)	orbit%time (float) (7.9.7.1.2)

7.9.7.2.35 pellets

datainfo (3604)	pellets%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	pellets%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	pellets%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	pellets%datainfo%source (string) (7.9.7.1.4)
comment (3702)	pellets%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	pellets%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	pellets%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	pellets%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	pellets%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	pellets%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	pellets%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	pellets%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	pellets%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	pellets%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	pellets%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	pellets%datainfo%putinfo%putmethod (string) (7.9.7.1.4)

putaccess (3910)	pellets%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	pellets%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	pellets%datainfo%putinfo%rights (string) (7.9.7.1.4)
compositions (3604)	pellets%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	pellets%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	pellets%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	pellets%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	pellets%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	pellets%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	pellets%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	pellets%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	pellets%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	pellets%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	pellets%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	pellets%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	pellets%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	pellets%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	pellets%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	pellets%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	pellets%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	pellets%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	pellets%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	pellets%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	pellets%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	pellets%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	pellets%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	pellets%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	pellets%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	pellets%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	pellets%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	pellets%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	pellets%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	pellets%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	pellets%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	pellets%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	pellets%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	pellets%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	pellets%compositions%signature%description (string) (7.9.7.1.4)
pellet (3604)	pellets%pellet(:) (pellet) (7.9.7.1.333)
shape (3880)	pellets%pellet(:)%shape (pellet_shape) (7.9.7.1.340)
type (3887)	pellets%pellet(:)%shape%type (identifier) (7.9.7.1.256)
id (3803)	pellets%pellet(:)%shape%type%id (string) (7.9.7.1.4)
flag (3803)	pellets%pellet(:)%shape%type%flag (integer) (7.9.7.1.3)
description (3803)	pellets%pellet(:)%shape%type%description (string) (7.9.7.1.4)
dimensions (3887)	pellets%pellet(:)%shape%dimensions (vecflt_type) (7.9.7.1.18)
elements (3880)	pellets%pellet(:)%elements (pellet_elements) (7.9.7.1.336)
nucindex (3883)	pellets%pellet(:)%elements%nucindex (vecint_type) (7.9.7.1.19)
density (3883)	pellets%pellet(:)%elements%density (vecflt_type) (7.9.7.1.18)
fraction (3883)	pellets%pellet(:)%elements%fraction (vecflt_type) (7.9.7.1.18)
subl_energy (3883)	pellets%pellet(:)%elements%subl_energy (vecflt_type) (7.9.7.1.18)
geometry (3880)	pellets%pellet(:)%geometry (pellet_geometry) (7.9.7.1.337)
pivot_point (3884)	pellets%pellet(:)%geometry%pivot_point (rzphi0D) (7.9.7.1.385)
r (3932)	pellets%pellet(:)%geometry%pivot_point%r (float) (7.9.7.1.2)
z (3932)	pellets%pellet(:)%geometry%pivot_point%z (float) (7.9.7.1.2)
phi (3932)	pellets%pellet(:)%geometry%pivot_point%phi (float) (7.9.7.1.2)
second_point (3884)	pellets%pellet(:)%geometry%second_point (rzphi0D) (7.9.7.1.385)
r (3932)	pellets%pellet(:)%geometry%second_point%r (float) (7.9.7.1.2)
z (3932)	pellets%pellet(:)%geometry%second_point%z (float) (7.9.7.1.2)
phi (3932)	pellets%pellet(:)%geometry%second_point%phi (float) (7.9.7.1.2)
velocity (3884)	pellets%pellet(:)%geometry%velocity (float) (7.9.7.1.2)
angles (3884)	pellets%pellet(:)%geometry%angles (pellet_angles) (7.9.7.1.334)

horizontal (3881)	pellets%pellet(:)%geometry%angles%horizontal (float) (7.9.7.1.2)
vertical (3881)	pellets%pellet(:)%geometry%angles%vertical (float) (7.9.7.1.2)
pathprofiles (3880)	pellets%pellet(:)%pathprofiles (pellet_pathprofiles) (7.9.7.1.339)
distance (3886)	pellets%pellet(:)%pathprofiles%distance (vecflt_type) (7.9.7.1.18)
rho_tor (3886)	pellets%pellet(:)%pathprofiles%rho_tor (vecflt_type) (7.9.7.1.18)
rho_pol (3886)	pellets%pellet(:)%pathprofiles%rho_pol (vecflt_type) (7.9.7.1.18)
velocity (3886)	pellets%pellet(:)%pathprofiles%velocity (vecflt_type) (7.9.7.1.18)
ne (3886)	pellets%pellet(:)%pathprofiles%ne (vecflt_type) (7.9.7.1.18)
te (3886)	pellets%pellet(:)%pathprofiles%te (vecflt_type) (7.9.7.1.18)
abl_rate (3886)	pellets%pellet(:)%pathprofiles%abl_rate (vecflt_type) (7.9.7.1.18)
abl_particles (3886)	pellets%pellet(:)%pathprofiles%abl_particles (vecflt_type) (7.9.7.1.18)
delta_drift (3886)	pellets%pellet(:)%pathprofiles%delta_drift (vecflt_type) (7.9.7.1.18)
position (3886)	pellets%pellet(:)%pathprofiles%position (rzphi1D) (7.9.7.1.386)
r (3933)	pellets%pellet(:)%pathprofiles%position%r (vecflt_type) (7.9.7.1.18)
z (3933)	pellets%pellet(:)%pathprofiles%position%z (vecflt_type) (7.9.7.1.18)
phi (3933)	pellets%pellet(:)%pathprofiles%position%phi (vecflt_type) (7.9.7.1.18)
deposition (3880)	pellets%pellet(:)%deposition (pellet_deposition) (7.9.7.1.335)
rho_tor (3882)	pellets%pellet(:)%deposition%rho_tor (vecflt_type) (7.9.7.1.18)
rho_pol (3882)	pellets%pellet(:)%deposition%rho_pol (vecflt_type) (7.9.7.1.18)
delta_ne (3882)	pellets%pellet(:)%deposition%delta_ne (vecflt_type) (7.9.7.1.18)
delta_te (3882)	pellets%pellet(:)%deposition%delta_te (vecflt_type) (7.9.7.1.18)
delta_ni (3882)	pellets%pellet(:)%deposition%delta_ni (matflt_type) (7.9.7.1.15)
delta_ti (3882)	pellets%pellet(:)%deposition%delta_ti (matflt_type) (7.9.7.1.15)
delta_vtor (3882)	pellets%pellet(:)%deposition%delta_vtor (matflt_type) (7.9.7.1.15)
impurity (3882)	pellets%pellet(:)%deposition%impurity(:) (pellet_impurity) (7.9.7.1.338)
delta_nz (3885)	pellets%pellet(:)%deposition%impurity(:)%delta_nz (matflt_type) (7.9.7.1.15)
codeparam (3604)	pellets%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	pellets%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	pellets%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	pellets%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	pellets%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	pellets%codeparam%output_flag (integer) (7.9.7.1.3)
time (3604)	pellets%time (float) (7.9.7.1.2)

7.9.7.2.36 pfsystems

datainfo (3605)	pfsystems%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	pfsystems%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	pfsystems%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	pfsystems%datainfo%source (string) (7.9.7.1.4)
comment (3702)	pfsystems%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	pfsystems%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	pfsystems%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	pfsystems%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	pfsystems%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	pfsystems%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	pfsystems%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	pfsystems%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	pfsystems%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	pfsystems%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	pfsystems%datainfo%putinfo%rights (string) (7.9.7.1.4)
pfcoils (3605)	pfsystems%pfcoils (pfcoils) (7.9.7.1.343)
desc_pfcoils (3890)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.7.1.159)
name (3706)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.7.1.20)
id (3706)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.7.1.20)
res (3706)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.7.1.18)
emax (3706)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.7.1.18)

structure_cs (3706)	pfsystems%pfcoils%desc_pfcoils%structure_cs (structure_cs) (7.9.7.1.438)
gaptf (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%gaptf (float) (7.9.7.1.2)
ri (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%ri (float) (7.9.7.1.2)
re (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%re (float) (7.9.7.1.2)
jcable (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%jcable (float) (7.9.7.1.2)
current_nom (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%current_nom (float) (7.9.7.1.2)
sigma (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%sigma (float) (7.9.7.1.2)
tiso (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%tiso (float) (7.9.7.1.2)
nlay (3985)	pfsystems%pfcoils%desc_pfcoils%structure_cs%nlay (float) (7.9.7.1.2)
pol_flux_cs (3706)	pfsystems%pfcoils%desc_pfcoils%pol_flux_cs (float) (7.9.7.1.2)
nelement (3706)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.7.1.19)
pfelement (3706)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.7.1.344)
name (3891)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.7.1.20)
id (3891)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.7.1.20)
turnsign (3891)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.7.1.15)
area (3891)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.7.1.15)
pfgeometry (3891)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.7.1.345)
type (3892)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.7.1.16)
npoints (3892)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.7.1.16)
rzcoordinate (3892)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.7.1.384)
r (3931)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.7.1.7)
z (3931)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.7.1.7)
rzdrdz (3892)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.7.1.7)
coilcurrent (3890)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.7.1.18)
coilvoltage (3890)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.7.1.18)
p_cryo (3890)	pfsystems%pfcoils%p_cryo (float) (7.9.7.1.2)
p_nh (3890)	pfsystems%pfcoils%p_nh (vecflt_type) (7.9.7.1.18)
pfpassive (3605)	pfsystems%pfpassive (pfpassive) (7.9.7.1.347)
name (3894)	pfsystems%pfpassive%name (vecstring_type) (7.9.7.1.20)
area (3894)	pfsystems%pfpassive%area (vecflt_type) (7.9.7.1.18)
res (3894)	pfsystems%pfpassive%res (vecflt_type) (7.9.7.1.18)
eta (3894)	pfsystems%pfpassive%eta (vecflt_type) (7.9.7.1.18)
current (3894)	pfsystems%pfpassive%current (pfpassive_current) (7.9.7.1.348)
toroidal (3895)	pfsystems%pfpassive%current%toroidal (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfpassive%current%toroidal%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfpassive%current%toroidal%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfpassive%current%toroidal%relerror (vecflt_type) (7.9.7.1.18)
poloidal (3895)	pfsystems%pfpassive%current%poloidal (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfpassive%current%poloidal%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfpassive%current%poloidal%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfpassive%current%poloidal%relerror (vecflt_type) (7.9.7.1.18)
pfpageometry (3894)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.7.1.346)
type (3893)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.7.1.19)
npoints (3893)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.7.1.19)
rzcoordinate (3893)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.7.1.383)
r (3930)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.7.1.15)
z (3930)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.7.1.15)
rzdrdz (3893)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.7.1.15)
pfcircuits (3605)	pfsystems%pfcircuits (pfcircuits) (7.9.7.1.342)
name (3889)	pfsystems%pfcircuits%name (vecstring_type) (7.9.7.1.20)
id (3889)	pfsystems%pfcircuits%id (vecstring_type) (7.9.7.1.20)
type (3889)	pfsystems%pfcircuits%type (vecstring_type) (7.9.7.1.20)
nnodes (3889)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.7.1.19)

connections (3889)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.7.1.8)
pfsupplies (3605)	pfsystems%pfsupplies (pfsupplies) (7.9.7.1.349)
desc_supply (3896)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.7.1.160)
name (3707)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.7.1.20)
id (3707)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.7.1.20)
type (3707)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.7.1.20)
delay (3707)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.7.1.18)
filter (3707)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.7.1.222)
num (3769)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.7.1.15)
den (3769)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.7.1.15)
imin (3707)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.7.1.18)
imax (3707)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.7.1.18)
res (3707)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.7.1.18)
umin (3707)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.7.1.18)
umax (3707)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.7.1.18)
emax (3707)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.7.1.18)
voltage (3896)	pfsystems%pfsupplies%voltage (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.7.1.18)
current (3896)	pfsystems%pfsupplies%current (exp1D) (7.9.7.1.218)
value (3765)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3605)	pfsystems%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	pfsystems%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	pfsystems%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	pfsystems%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	pfsystems%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	pfsystems%codeparam%output_flag (integer) (7.9.7.1.3)
time (3605)	pfsystems%time (float) (7.9.7.1.2)

7.9.7.2.37 polardiag

datainfo (3822)	lineintegraldiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	lineintegraldiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	lineintegraldiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	lineintegraldiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	lineintegraldiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	lineintegraldiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	lineintegraldiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	lineintegraldiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	lineintegraldiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	lineintegraldiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
expression (3822)	lineintegraldiag%expression (string) (7.9.7.1.4)
setup_line (3822)	lineintegraldiag%setup_line (setup_line) (7.9.7.1.417)
pivot_point (3964)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.7.1.18)
horchordang1 (3964)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.7.1.18)
verchordang1 (3964)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.7.1.18)

width (3964)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.7.1.18)
second_point (3964)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.7.1.18)
horchordang2 (3964)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.7.1.18)
verchordang2 (3964)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.7.1.18)
third_point (3964)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.7.1.386)
r (3933)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.7.1.18)
z (3933)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.7.1.18)
phi (3933)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.7.1.18)
nchordpoints (3964)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.7.1.3)
measure (3822)	lineintegraldiag%measure (exp1D) (7.9.7.1.218)
value (3765)	lineintegraldiag%measure%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3822)	lineintegraldiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	lineintegraldiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	lineintegraldiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	lineintegraldiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	lineintegraldiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	lineintegraldiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3822)	lineintegraldiag%time (float) (7.9.7.1.2)

7.9.7.2.38 power_conv

datainfo (3607)	power_conv%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	power_conv%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	power_conv%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	power_conv%datainfo%source (string) (7.9.7.1.4)
comment (3702)	power_conv%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	power_conv%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	power_conv%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	power_conv%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	power_conv%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	power_conv%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	power_conv%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	power_conv%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	power_conv%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	power_conv%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	power_conv%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	power_conv%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	power_conv%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	power_conv%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	power_conv%datainfo%putinfo%rights (string) (7.9.7.1.4)
cycle_type (3607)	power_conv%cycle_type (string) (7.9.7.1.4)
circuits (3607)	power_conv%circuits(:) (circuits) (7.9.7.1.95)
component (3642)	power_conv%circuits(:)%component(:) (power_conv_component) (7.9.7.1.357)
name (3904)	power_conv%circuits(:)%component(:)%name (string) (7.9.7.1.4)
temp_in (3904)	power_conv%circuits(:)%component(:)%temp_in (float) (7.9.7.1.2)
temp_out (3904)	power_conv%circuits(:)%component(:)%temp_out (float) (7.9.7.1.2)
press_in (3904)	power_conv%circuits(:)%component(:)%press_in (float) (7.9.7.1.2)
press_out (3904)	power_conv%circuits(:)%component(:)%press_out (float) (7.9.7.1.2)
power (3904)	power_conv%circuits(:)%component(:)%power (float) (7.9.7.1.2)
flow (3904)	power_conv%circuits(:)%component(:)%flow (float) (7.9.7.1.2)
power_net (3642)	power_conv%circuits(:)%power_net (float) (7.9.7.1.2)
power_int (3642)	power_conv%circuits(:)%power_int (float) (7.9.7.1.2)
efficiency (3642)	power_conv%circuits(:)%efficiency (float) (7.9.7.1.2)
power_recirc (3607)	power_conv%power_recirc (float) (7.9.7.1.2)
power_net (3607)	power_conv%power_net (float) (7.9.7.1.2)
power_int (3607)	power_conv%power_int (float) (7.9.7.1.2)

efficiency (3607)	power_conv%efficiency (float) (7.9.7.1.2)
codeparam (3607)	power_conv%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	power_conv%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	power_conv%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	power_conv%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	power_conv%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	power_conv%codeparam%output_flag (integer) (7.9.7.1.3)
time (3607)	power_conv%time (float) (7.9.7.1.2)

7.9.7.2.39 reflectomet

datainfo (3608)	reflectomet%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	reflectomet%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	reflectomet%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	reflectomet%datainfo%source (string) (7.9.7.1.4)
comment (3702)	reflectomet%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	reflectomet%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	reflectomet%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	reflectomet%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	reflectomet%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	reflectomet%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	reflectomet%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	reflectomet%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	reflectomet%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	reflectomet%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	reflectomet%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	reflectomet%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	reflectomet%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	reflectomet%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	reflectomet%datainfo%putinfo%rights (string) (7.9.7.1.4)
refl_receive (3608)	reflectomet%refl_receive(:) (refl_receive) (7.9.7.1.370)
name (3917)	reflectomet%refl_receive(:)%name (string) (7.9.7.1.4)
raw_signal (3917)	reflectomet%refl_receive(:)%raw_signal (t_series_real) (7.9.7.1.440)
time_wind (3987)	reflectomet%refl_receive(:)%raw_signal%time_wind (vecflt_type) (7.9.7.1.18)
values (3987)	reflectomet%refl_receive(:)%raw_signal%values (vecflt_type) (7.9.7.1.18)
io_signal (3917)	reflectomet%refl_receive(:)%io_signal (t_series_real) (7.9.7.1.440)
time_wind (3987)	reflectomet%refl_receive(:)%io_signal%time_wind (vecflt_type) (7.9.7.1.18)
values (3987)	reflectomet%refl_receive(:)%io_signal%values (vecflt_type) (7.9.7.1.18)
iq_receiver (3917)	reflectomet%refl_receive(:)%iq_receiver (t_series_cplx) (7.9.7.1.439)
time_wind (3986)	reflectomet%refl_receive(:)%iq_receiver%time_wind (vecflt_type) (7.9.7.1.18)
values_re (3986)	reflectomet%refl_receive(:)%iq_receiver%values_re (vecflt_type) (7.9.7.1.18)
values_im (3986)	reflectomet%refl_receive(:)%iq_receiver%values_im (vecflt_type) (7.9.7.1.18)
antenna_ind (3917)	reflectomet%refl_receive(:)%antenna_ind (integer) (7.9.7.1.3)
antennas (3608)	reflectomet%antennas(:) (reflectometry_antennas) (7.9.7.1.371)
name (3918)	reflectomet%antennas(:)%name (string) (7.9.7.1.4)
type (3918)	reflectomet%antennas(:)%type (identifier) (7.9.7.1.256)
id (3803)	reflectomet%antennas(:)%type%id (string) (7.9.7.1.4)
flag (3803)	reflectomet%antennas(:)%type%flag (integer) (7.9.7.1.3)
description (3803)	reflectomet%antennas(:)%type%description (string) (7.9.7.1.4)
origin (3918)	reflectomet%antennas(:)%origin (origin) (7.9.7.1.330)
refpos (3877)	reflectomet%antennas(:)%origin%refpos (rzphi0D) (7.9.7.1.385)
r (3932)	reflectomet%antennas(:)%origin%refpos%r (float) (7.9.7.1.2)
z (3932)	reflectomet%antennas(:)%origin%refpos%z (float) (7.9.7.1.2)
phi (3932)	reflectomet%antennas(:)%origin%refpos%phi (float) (7.9.7.1.2)
alpha (3877)	reflectomet%antennas(:)%origin%alpha (float) (7.9.7.1.2)
beta (3877)	reflectomet%antennas(:)%origin%beta (float) (7.9.7.1.2)
gamma (3877)	reflectomet%antennas(:)%origin%gamma (float) (7.9.7.1.2)
radfield (3918)	reflectomet%antennas(:)%radfield (reflectometry_radfield) (7.9.7.1.372)
type (3919)	reflectomet%antennas(:)%radfield%type (identifier) (7.9.7.1.256)
id (3803)	reflectomet%antennas(:)%radfield%type%id (string) (7.9.7.1.4)
flag (3803)	reflectomet%antennas(:)%radfield%type%flag (integer) (7.9.7.1.3)

description (3803)	reflectomet%antennas(:)%radfield%type%description (string) (7.9.7.1.4)
position (3919)	reflectomet%antennas(:)%radfield%position (vecflt_type) (7.9.7.1.18)
gaussian (3919)	reflectomet%antennas(:)%radfield%gaussian(:) (reflectometry_radfield_gaussian) (7.9.7.1.373)
aperture (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture (simp_apert) (7.9.7.1.421)
type (3968)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type (identifier) (7.9.7.1.256)
id (3803)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%id (string) (7.9.7.1.4)
flag (3803)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%flag (integer) (7.9.7.1.3)
description (3803)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%description (string) (7.9.7.1.4)
sizes (3968)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%sizes (vecflt_type) (7.9.7.1.18)
angle (3968)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%angle (float) (7.9.7.1.2)
waistsize (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%waistsize (vecflt_type) (7.9.7.1.18)
waistzpos (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%waistzpos (vecflt_type) (7.9.7.1.18)
tiltangle (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%tiltangle (vecflt_type) (7.9.7.1.18)
polar_angle (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%polar_angle (vecflt_type) (7.9.7.1.18)
frequency (3920)	reflectomet%antennas(:)%radfield%gaussian(:)%frequency (float) (7.9.7.1.2)
efield (3919)	reflectomet%antennas(:)%radfield%efield(:) (reflectometry_radifield_efield) (7.9.7.1.374)
grid2d (3921)	reflectomet%antennas(:)%radfield%efield(:)%grid2d (reggrid) (7.9.7.1.375)
dim1 (3922)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (3922)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim2 (vecflt_type) (7.9.7.1.18)
e1 (3921)	reflectomet%antennas(:)%radfield%efield(:)%e1 (matcplx_type) (7.9.7.1.14)
e2 (3921)	reflectomet%antennas(:)%radfield%efield(:)%e2 (matcplx_type) (7.9.7.1.14)
frequency (3921)	reflectomet%antennas(:)%radfield%efield(:)%frequency (float) (7.9.7.1.2)
geometry (3918)	reflectomet%antennas(:)%geometry (float) (7.9.7.1.2)
launchsignal (3918)	reflectomet%antennas(:)%launchsignal (launchsignal) (7.9.7.1.272)
time_launch (3819)	reflectomet%antennas(:)%launchsignal%time_launch (vecflt_type) (7.9.7.1.18)
freq (3819)	reflectomet%antennas(:)%launchsignal%freq (vecflt_type) (7.9.7.1.18)
amplitude (3819)	reflectomet%antennas(:)%launchsignal%amplitude (vecflt_type) (7.9.7.1.18)
phase (3819)	reflectomet%antennas(:)%launchsignal%phase (vecflt_type) (7.9.7.1.18)
codeparam (3608)	reflectomet%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	reflectomet%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	reflectomet%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	reflectomet%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	reflectomet%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	reflectomet%codeparam%output_flag (integer) (7.9.7.1.3)
time (3608)	reflectomet%time (float) (7.9.7.1.2)

7.9.7.2.40 rfadiag

datainfo (3609)	rfadiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	rfadiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	rfadiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	rfadiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	rfadiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	rfadiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	rfadiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	rfadiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	rfadiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	rfadiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	rfadiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	rfadiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	rfadiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	rfadiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	rfadiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	rfadiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	rfadiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	rfadiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	rfadiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3609)	rfadiag%setup (rfasetup) (7.9.7.1.377)
position (3924)	rfadiag%setup%position (rzphi1Dexp) (7.9.7.1.387)
r (3934)	rfadiag%setup%position%r (exp1D) (7.9.7.1.218)

value (3765)	rfadiag%setup%position%r%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	rfadiag%setup%position%r%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	rfadiag%setup%position%r%relerror (vecflt_type) (7.9.7.1.18)
z (3934)	rfadiag%setup%position%z (exp1D) (7.9.7.1.218)
value (3765)	rfadiag%setup%position%z%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	rfadiag%setup%position%z%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	rfadiag%setup%position%z%relerror (vecflt_type) (7.9.7.1.18)
phi (3934)	rfadiag%setup%position%phi (exp1D) (7.9.7.1.218)
value (3765)	rfadiag%setup%position%phi%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	rfadiag%setup%position%phi%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	rfadiag%setup%position%phi%relerror (vecflt_type) (7.9.7.1.18)
measure (3609)	rfadiag%measure (rfameasure) (7.9.7.1.376)
ti (3923)	rfadiag%measure%ti (exp1D) (7.9.7.1.218)
value (3765)	rfadiag%measure%ti%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	rfadiag%measure%ti%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	rfadiag%measure%ti%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3609)	rfadiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	rfadiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	rfadiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	rfadiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	rfadiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	rfadiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3609)	rfadiag%time (float) (7.9.7.1.2)

7.9.7.2.41 sawteeth

datainfo (3610)	sawteeth%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	sawteeth%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	sawteeth%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	sawteeth%datainfo%source (string) (7.9.7.1.4)
comment (3702)	sawteeth%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	sawteeth%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	sawteeth%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	sawteeth%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	sawteeth%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	sawteeth%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	sawteeth%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	sawteeth%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	sawteeth%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	sawteeth%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	sawteeth%datainfo%putinfo%rights (string) (7.9.7.1.4)
crash_trig (3610)	sawteeth%crash_trig (integer) (7.9.7.1.3)
composition (3610)	sawteeth%composition (composition) (7.9.7.1.116)
amn (3663)	sawteeth%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	sawteeth%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	sawteeth%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	sawteeth%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	sawteeth%composition%label (vecstring_type) (7.9.7.1.20)
rho_tor_norm (3610)	sawteeth%rho_tor_norm (vecflt_type) (7.9.7.1.18)
rho_tor (3610)	sawteeth%rho_tor (vecflt_type) (7.9.7.1.18)
profiles1d (3610)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.7.1.393)
ne (3940)	sawteeth%profiles1d%ne (vecflt_type) (7.9.7.1.18)
ni (3940)	sawteeth%profiles1d%ni (matflt_type) (7.9.7.1.15)
te (3940)	sawteeth%profiles1d%te (vecflt_type) (7.9.7.1.18)
ti (3940)	sawteeth%profiles1d%ti (matflt_type) (7.9.7.1.15)
psi (3940)	sawteeth%profiles1d%psi (vecflt_type) (7.9.7.1.18)
phi (3940)	sawteeth%profiles1d%phi (vecflt_type) (7.9.7.1.18)

psistar (3940)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.7.1.18)
volume (3940)	sawteeth%profiles1d%volume (vecflt_type) (7.9.7.1.18)
q (3940)	sawteeth%profiles1d%q (vecflt_type) (7.9.7.1.18)
diags (3610)	sawteeth%diags (sawteeth_diags) (7.9.7.1.392)
shear1 (3939)	sawteeth%diags%shear1 (float) (7.9.7.1.2)
rhotorn_q1 (3939)	sawteeth%diags%rhotorn_q1 (float) (7.9.7.1.2)
rhotorn_inv (3939)	sawteeth%diags%rhotorn_inv (float) (7.9.7.1.2)
rhotorn_mix (3939)	sawteeth%diags%rhotorn_mix (float) (7.9.7.1.2)
codeparam (3610)	sawteeth%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	sawteeth%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	sawteeth%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	sawteeth%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	sawteeth%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	sawteeth%codeparam%output_flag (integer) (7.9.7.1.3)
time (3610)	sawteeth%time (float) (7.9.7.1.2)

7.9.7.2.42 scenario

datainfo (3611)	scenario%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	scenario%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	scenario%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	scenario%datainfo%source (string) (7.9.7.1.4)
comment (3702)	scenario%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	scenario%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	scenario%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	scenario%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	scenario%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	scenario%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	scenario%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	scenario%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	scenario%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	scenario%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	scenario%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	scenario%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	scenario%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	scenario%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	scenario%datainfo%putinfo%rights (string) (7.9.7.1.4)
centre (3611)	scenario%centre (scenario_centre) (7.9.7.1.394)
te0 (3941)	scenario%centre%te0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%te0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%te0%source (string) (7.9.7.1.4)
ti0 (3941)	scenario%centre%ti0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%ti0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%ti0%source (string) (7.9.7.1.4)
ne0 (3941)	scenario%centre%ne0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%ne0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%ne0%source (string) (7.9.7.1.4)
ni0 (3941)	scenario%centre%ni0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%ni0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%ni0%source (string) (7.9.7.1.4)
shift0 (3941)	scenario%centre%shift0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%shift0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%shift0%source (string) (7.9.7.1.4)
psi0 (3941)	scenario%centre%psi0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%psi0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%psi0%source (string) (7.9.7.1.4)
phi0 (3941)	scenario%centre%phi0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%phi0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%phi0%source (string) (7.9.7.1.4)
q0 (3941)	scenario%centre%q0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%q0%value (float) (7.9.7.1.2)

source (3958)	scenario%centre%q0%source (string) (7.9.7.1.4)
Rmag (3941)	scenario%centre%Rmag (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%Rmag%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%Rmag%source (string) (7.9.7.1.4)
Zmag (3941)	scenario%centre%Zmag (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%Zmag%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%Zmag%source (string) (7.9.7.1.4)
vtor_0 (3941)	scenario%centre%vtor_0 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%centre%vtor_0%value (float) (7.9.7.1.2)
source (3958)	scenario%centre%vtor_0%source (string) (7.9.7.1.4)
composition (3611)	scenario%composition (scenario_composition) (7.9.7.1.395)
amn (3942)	scenario%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3942)	scenario%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3942)	scenario%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3942)	scenario%composition%imp_flag (vecint_type) (7.9.7.1.19)
rot_imp_flag (3942)	scenario%composition%rot_imp_flag (vecint_type) (7.9.7.1.19)
pellet_amn (3942)	scenario%composition%pellet_amn (vecflt_type) (7.9.7.1.18)
pellet_zn (3942)	scenario%composition%pellet_zn (vecflt_type) (7.9.7.1.18)
nbi_amn (3942)	scenario%composition%nbi_amn (vecflt_type) (7.9.7.1.18)
nbi_zn (3942)	scenario%composition%nbi_zn (vecflt_type) (7.9.7.1.18)
configs (3611)	scenario%configs (scenario_configuration) (7.9.7.1.396)
config (3943)	scenario%configs%config (scenario_int) (7.9.7.1.403)
value (3950)	scenario%configs%config%value (integer) (7.9.7.1.3)
source (3950)	scenario%configs%config%source (string) (7.9.7.1.4)
lmode_sc (3943)	scenario%configs%lmode_sc (string) (7.9.7.1.4)
hmode_sc (3943)	scenario%configs%hmode_sc (string) (7.9.7.1.4)
core_sc (3943)	scenario%configs%core_sc (string) (7.9.7.1.4)
pedestal_sc (3943)	scenario%configs%pedestal_sc (string) (7.9.7.1.4)
helium_sc (3943)	scenario%configs%helium_sc (string) (7.9.7.1.4)
impurity_sc (3943)	scenario%configs%impurity_sc (string) (7.9.7.1.4)
l2h_sc (3943)	scenario%configs%l2h_sc (string) (7.9.7.1.4)
tor_rot_sc (3943)	scenario%configs%tor_rot_sc (string) (7.9.7.1.4)
wall_mat (3943)	scenario%configs%wall_mat (string) (7.9.7.1.4)
evap_mat (3943)	scenario%configs%evap_mat (string) (7.9.7.1.4)
lim_mat (3943)	scenario%configs%lim_mat (string) (7.9.7.1.4)
div_mat (3943)	scenario%configs%div_mat (string) (7.9.7.1.4)
coordinate (3943)	scenario%configs%coordinate (string) (7.9.7.1.4)
ecrh_freq (3943)	scenario%configs%ecrh_freq (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%ecrh_freq%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%ecrh_freq%source (string) (7.9.7.1.4)
ecrh_loc (3943)	scenario%configs%ecrh_loc (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%ecrh_loc%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%ecrh_loc%source (string) (7.9.7.1.4)
ecrh_mode (3943)	scenario%configs%ecrh_mode (scenario_int) (7.9.7.1.403)
value (3950)	scenario%configs%ecrh_mode%value (integer) (7.9.7.1.3)
source (3950)	scenario%configs%ecrh_mode%source (string) (7.9.7.1.4)
ecrh_tor_ang (3943)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%ecrh_tor_ang%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%ecrh_tor_ang%source (string) (7.9.7.1.4)
ecrh_pol_ang (3943)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%ecrh_pol_ang%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%ecrh_pol_ang%source (string) (7.9.7.1.4)
ecrh_harm (3943)	scenario%configs%ecrh_harm (scenario_int) (7.9.7.1.403)
value (3950)	scenario%configs%ecrh_harm%value (integer) (7.9.7.1.3)
source (3950)	scenario%configs%ecrh_harm%source (string) (7.9.7.1.4)
enbi (3943)	scenario%configs%enbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%enbi%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%enbi%source (string) (7.9.7.1.4)
r_nbi (3943)	scenario%configs%r_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%r_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%r_nbi%source (string) (7.9.7.1.4)

grad_b_drift (3943)	scenario%configs%grad_b_drift (scenario_int) (7.9.7.1.403)
value (3950)	scenario%configs%grad_b_drift%value (integer) (7.9.7.1.3)
source (3950)	scenario%configs%grad_b_drift%source (string) (7.9.7.1.4)
icrh_freq (3943)	scenario%configs%icrh_freq (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%icrh_freq%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%icrh_freq%source (string) (7.9.7.1.4)
icrh_scheme (3943)	scenario%configs%icrh_scheme (string) (7.9.7.1.4)
icrh_phase (3943)	scenario%configs%icrh_phase (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%icrh_phase%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%icrh_phase%source (string) (7.9.7.1.4)
LH_freq (3943)	scenario%configs%LH_freq (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%LH_freq%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%LH_freq%source (string) (7.9.7.1.4)
LH_npar (3943)	scenario%configs%LH_npar (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%LH_npar%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%LH_npar%source (string) (7.9.7.1.4)
pellet_ang (3943)	scenario%configs%pellet_ang (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%pellet_ang%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%pellet_ang%source (string) (7.9.7.1.4)
pellet_v (3943)	scenario%configs%pellet_v (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%pellet_v%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%pellet_v%source (string) (7.9.7.1.4)
pellet_nba (3943)	scenario%configs%pellet_nba (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%configs%pellet_nba%value (float) (7.9.7.1.2)
source (3958)	scenario%configs%pellet_nba%source (string) (7.9.7.1.4)
confinement (3611)	scenario%confinement (scenario_confinement) (7.9.7.1.397)
tau_e (3944)	scenario%confinement%tau_e (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_e%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_e%source (string) (7.9.7.1.4)
tau_l_sc (3944)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_l_sc%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_l_sc%source (string) (7.9.7.1.4)
tau_h_sc (3944)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_h_sc%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_h_sc%source (string) (7.9.7.1.4)
tau_he (3944)	scenario%confinement%tau_he (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_he%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_he%source (string) (7.9.7.1.4)
tau_e_ee (3944)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_e_ee%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_e_ee%source (string) (7.9.7.1.4)
tau_e_ii (3944)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_e_ii%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_e_ii%source (string) (7.9.7.1.4)
tau_e_ei (3944)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_e_ei%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_e_ei%source (string) (7.9.7.1.4)
tau_cur_diff (3944)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_cur_diff%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_cur_diff%source (string) (7.9.7.1.4)
tau_i_rol (3944)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%confinement%tau_i_rol%value (float) (7.9.7.1.2)
source (3958)	scenario%confinement%tau_i_rol%source (string) (7.9.7.1.4)
currents (3611)	scenario%currents (scenario_currents) (7.9.7.1.398)
RR (3945)	scenario%currents%RR (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%RR%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%RR%source (string) (7.9.7.1.4)
i_align (3945)	scenario%currents%i_align (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_align%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_align%source (string) (7.9.7.1.4)
i_boot (3945)	scenario%currents%i_boot (scenario_ref) (7.9.7.1.411)

value (3958)	scenario%currents%i_boot%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_boot%source (string) (7.9.7.1.4)
i_cd_tot (3945)	scenario%currents%i_cd_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_cd_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_cd_tot%source (string) (7.9.7.1.4)
i_eccd (3945)	scenario%currents%i_eccd (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_eccd%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_eccd%source (string) (7.9.7.1.4)
i_fast_ion (3945)	scenario%currents%i_fast_ion (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_fast_ion%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_fast_ion%source (string) (7.9.7.1.4)
i_fwcd (3945)	scenario%currents%i_fwcd (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_fwcd%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_fwcd%source (string) (7.9.7.1.4)
i_lhcd (3945)	scenario%currents%i_lhcd (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_lhcd%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_lhcd%source (string) (7.9.7.1.4)
i_nbicd (3945)	scenario%currents%i_nbicd (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_nbicd%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_nbicd%source (string) (7.9.7.1.4)
i_ni_tot (3945)	scenario%currents%i_ni_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_ni_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_ni_tot%source (string) (7.9.7.1.4)
i_ohm (3945)	scenario%currents%i_ohm (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_ohm%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_ohm%source (string) (7.9.7.1.4)
i_par (3945)	scenario%currents%i_par (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_par%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_par%source (string) (7.9.7.1.4)
i_runaway (3945)	scenario%currents%i_runaway (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%i_runaway%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%i_runaway%source (string) (7.9.7.1.4)
v_loop (3945)	scenario%currents%v_loop (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%v_loop%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%v_loop%source (string) (7.9.7.1.4)
v_meas (3945)	scenario%currents%v_meas (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%currents%v_meas%value (float) (7.9.7.1.2)
source (3958)	scenario%currents%v_meas%source (string) (7.9.7.1.4)
edge (3611)	scenario%edge (scenario_edge) (7.9.7.1.399)
te_edge (3946)	scenario%edge%te_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%te_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%te_edge%source (string) (7.9.7.1.4)
ti_edge (3946)	scenario%edge%ti_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%ti_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%ti_edge%source (string) (7.9.7.1.4)
ne_edge (3946)	scenario%edge%ne_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%ne_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%ne_edge%source (string) (7.9.7.1.4)
ni_edge (3946)	scenario%edge%ni_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%ni_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%ni_edge%source (string) (7.9.7.1.4)
psi_edge (3946)	scenario%edge%psi_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%psi_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%psi_edge%source (string) (7.9.7.1.4)
phi_edge (3946)	scenario%edge%phi_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%phi_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%phi_edge%source (string) (7.9.7.1.4)
rho_edge (3946)	scenario%edge%rho_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%rho_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%rho_edge%source (string) (7.9.7.1.4)
drho_edge_dt (3946)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.7.1.411)

value (3958)	scenario%edge%drho_edge_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%drho_edge_dt%source (string) (7.9.7.1.4)
q_edge (3946)	scenario%edge%q_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%q_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%q_edge%source (string) (7.9.7.1.4)
neutral_flux (3946)	scenario%edge%neutral_flux (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%neutral_flux%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%neutral_flux%source (string) (7.9.7.1.4)
phi_plasma (3946)	scenario%edge%phi_plasma (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%phi_plasma%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%phi_plasma%source (string) (7.9.7.1.4)
vtor_edge (3946)	scenario%edge%vtor_edge (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%edge%vtor_edge%value (float) (7.9.7.1.2)
source (3958)	scenario%edge%vtor_edge%source (string) (7.9.7.1.4)
energy (3611)	scenario%energy (scenario_energy) (7.9.7.1.400)
w_tot (3947)	scenario%energy%w_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%w_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%w_tot%source (string) (7.9.7.1.4)
w_b_pol (3947)	scenario%energy%w_b_pol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%w_b_pol%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%w_b_pol%source (string) (7.9.7.1.4)
w_dia (3947)	scenario%energy%w_dia (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%w_dia%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%w_dia%source (string) (7.9.7.1.4)
dwdia_dt (3947)	scenario%energy%dwdia_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%dwdia_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%dwdia_dt%source (string) (7.9.7.1.4)
w_b_tor_pla (3947)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%w_b_tor_pla%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%w_b_tor_pla%source (string) (7.9.7.1.4)
w_th (3947)	scenario%energy%w_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%w_th%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%w_th%source (string) (7.9.7.1.4)
dwtot_dt (3947)	scenario%energy%dwtot_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%dwtot_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%dwtot_dt%source (string) (7.9.7.1.4)
dwbpol_dt (3947)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%dwbpol_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%dwbpol_dt%source (string) (7.9.7.1.4)
dwbtorpla_dt (3947)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%dwbtorpla_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%dwbtorpla_dt%source (string) (7.9.7.1.4)
dwth_dt (3947)	scenario%energy%dwth_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%dwth_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%dwth_dt%source (string) (7.9.7.1.4)
esup_icrhtot (3947)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%esup_icrhtot%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_icrhtot%source (string) (7.9.7.1.4)
esup_icrhper (3947)	scenario%energy%esup_icrhper (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%esup_icrhper%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_icrhper%source (string) (7.9.7.1.4)
esup_nbitot (3947)	scenario%energy%esup_nbitot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%esup_nbitot%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_nbitot%source (string) (7.9.7.1.4)
esup_nbiperp (3947)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%esup_nbiperp%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_nbiperp%source (string) (7.9.7.1.4)
esup_lhcd (3947)	scenario%energy%esup_lhcd (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%energy%esup_lhcd%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_lhcd%source (string) (7.9.7.1.4)
esup_alpha (3947)	scenario%energy%esup_alpha (scenario_ref) (7.9.7.1.411)

value (3958)	scenario%energy%esup_alpha%value (float) (7.9.7.1.2)
source (3958)	scenario%energy%esup_alpha%source (string) (7.9.7.1.4)
eqgeometry (3611)	scenario%eqgeometry (eqgeometry) (7.9.7.1.211)
source (3758)	scenario%eqgeometry%source (string) (7.9.7.1.4)
boundarytype (3758)	scenario%eqgeometry%boundarytype (integer) (7.9.7.1.3)
boundary (3758)	scenario%eqgeometry%boundary(:) (rz1Dexp) (7.9.7.1.382)
r (3929)	scenario%eqgeometry%boundary(:)%r (vecflt_type) (7.9.7.1.18)
z (3929)	scenario%eqgeometry%boundary(:)%z (vecflt_type) (7.9.7.1.18)
geom_axis (3758)	scenario%eqgeometry%geom_axis (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%geom_axis%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%geom_axis%z (float) (7.9.7.1.2)
a_minor (3758)	scenario%eqgeometry%a_minor (float) (7.9.7.1.2)
elongation (3758)	scenario%eqgeometry%elongation (float) (7.9.7.1.2)
elong_upper (3758)	scenario%eqgeometry%elong_upper (float) (7.9.7.1.2)
elong_lower (3758)	scenario%eqgeometry%elong_lower (float) (7.9.7.1.2)
tria_upper (3758)	scenario%eqgeometry%tria_upper (float) (7.9.7.1.2)
tria_lower (3758)	scenario%eqgeometry%tria_lower (float) (7.9.7.1.2)
xpts (3758)	scenario%eqgeometry%xpts(:) (rz1Dexp) (7.9.7.1.382)
r (3929)	scenario%eqgeometry%xpts(:)%r (vecflt_type) (7.9.7.1.18)
z (3929)	scenario%eqgeometry%xpts(:)%z (vecflt_type) (7.9.7.1.18)
left_low_st (3758)	scenario%eqgeometry%left_low_st (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%left_low_st%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%left_low_st%z (float) (7.9.7.1.2)
right_low_st (3758)	scenario%eqgeometry%right_low_st (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%right_low_st%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%right_low_st%z (float) (7.9.7.1.2)
left_up_st (3758)	scenario%eqgeometry%left_up_st (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%left_up_st%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%left_up_st%z (float) (7.9.7.1.2)
right_up_st (3758)	scenario%eqgeometry%right_up_st (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%right_up_st%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%right_up_st%z (float) (7.9.7.1.2)
active_limit (3758)	scenario%eqgeometry%active_limit (rz0D) (7.9.7.1.379)
r (3926)	scenario%eqgeometry%active_limit%r (float) (7.9.7.1.2)
z (3926)	scenario%eqgeometry%active_limit%z (float) (7.9.7.1.2)
ang_lcms_upo (3758)	scenario%eqgeometry%ang_lcms_upo (float) (7.9.7.1.2)
ang_lcms_upi (3758)	scenario%eqgeometry%ang_lcms_upi (float) (7.9.7.1.2)
ang_lcms_lwo (3758)	scenario%eqgeometry%ang_lcms_lwo (float) (7.9.7.1.2)
ang_lcms_lwi (3758)	scenario%eqgeometry%ang_lcms_lwi (float) (7.9.7.1.2)
global_param (3611)	scenario%global_param (scenario_global) (7.9.7.1.401)
ip (3948)	scenario%global_param%ip (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%ip%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%ip%source (string) (7.9.7.1.4)
dip_dt (3948)	scenario%global_param%dip_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%dip_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%dip_dt%source (string) (7.9.7.1.4)
beta_pol (3948)	scenario%global_param%beta_pol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_pol%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_pol%source (string) (7.9.7.1.4)
beta_tor (3948)	scenario%global_param%beta_tor (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_tor%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_tor%source (string) (7.9.7.1.4)
beta_normal (3948)	scenario%global_param%beta_normal (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_normal%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_normal%source (string) (7.9.7.1.4)
li (3948)	scenario%global_param%li (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%li%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%li%source (string) (7.9.7.1.4)
volume (3948)	scenario%global_param%volume (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%volume%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%volume%source (string) (7.9.7.1.4)

area_pol (3948)	scenario%global_param%area_pol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%area_pol%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%area_pol%source (string) (7.9.7.1.4)
area_ext (3948)	scenario%global_param%area_ext (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%area_ext%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%area_ext%source (string) (7.9.7.1.4)
len_sepa (3948)	scenario%global_param%len_sepa (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%len_sepa%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%len_sepa%source (string) (7.9.7.1.4)
beta_pol_th (3948)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_pol_th%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_pol_th%source (string) (7.9.7.1.4)
beta_tor_th (3948)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_tor_th%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_tor_th%source (string) (7.9.7.1.4)
beta_n_th (3948)	scenario%global_param%beta_n_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%beta_n_th%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%beta_n_th%source (string) (7.9.7.1.4)
disruption (3948)	scenario%global_param%disruption (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%disruption%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%disruption%source (string) (7.9.7.1.4)
mode_h (3948)	scenario%global_param%mode_h (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%mode_h%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%mode_h%source (string) (7.9.7.1.4)
s_alpha (3948)	scenario%global_param%s_alpha (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%global_param%s_alpha%value (float) (7.9.7.1.2)
source (3958)	scenario%global_param%s_alpha%source (string) (7.9.7.1.4)
heat_power (3611)	scenario%heat_power (scenario_heat_power) (7.9.7.1.402)
plh (3949)	scenario%heat_power%plh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%plh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%plh%source (string) (7.9.7.1.4)
pohmic (3949)	scenario%heat_power%pohmic (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pohmic%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pohmic%source (string) (7.9.7.1.4)
picrh (3949)	scenario%heat_power%picrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%picrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%picrh%source (string) (7.9.7.1.4)
pecrh (3949)	scenario%heat_power%pecrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pecrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pecrh%source (string) (7.9.7.1.4)
pnbi (3949)	scenario%heat_power%pnbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pnbi%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pnbi%source (string) (7.9.7.1.4)
pnbi_co_cur (3949)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.7.1.4)
pnbi_counter (3949)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pnbi_counter%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pnbi_counter%source (string) (7.9.7.1.4)
plh_th (3949)	scenario%heat_power%plh_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%plh_th%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%plh_th%source (string) (7.9.7.1.4)
picrh_th (3949)	scenario%heat_power%picrh_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%picrh_th%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%picrh_th%source (string) (7.9.7.1.4)
pecrh_th (3949)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pecrh_th%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pecrh_th%source (string) (7.9.7.1.4)
pnbi_th (3949)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pnbi_th%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pnbi_th%source (string) (7.9.7.1.4)

ploss_icrh (3949)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%ploss_icrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%ploss_icrh%source (string) (7.9.7.1.4)
ploss_nbi (3949)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%ploss_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%ploss_nbi%source (string) (7.9.7.1.4)
pbrem (3949)	scenario%heat_power%pbrem (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pbrem%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pbrem%source (string) (7.9.7.1.4)
pcyclo (3949)	scenario%heat_power%pcyclo (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pcyclo%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pcyclo%source (string) (7.9.7.1.4)
prad (3949)	scenario%heat_power%prad (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%prad%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%prad%source (string) (7.9.7.1.4)
pdd_fus (3949)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pdd_fus%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pdd_fus%source (string) (7.9.7.1.4)
pei (3949)	scenario%heat_power%pei (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pei%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pei%source (string) (7.9.7.1.4)
pel_tot (3949)	scenario%heat_power%pel_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pel_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pel_tot%source (string) (7.9.7.1.4)
pel_fus (3949)	scenario%heat_power%pel_fus (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pel_fus%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pel_fus%source (string) (7.9.7.1.4)
pel_icrh (3949)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pel_icrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pel_icrh%source (string) (7.9.7.1.4)
pel_nbi (3949)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pel_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pel_nbi%source (string) (7.9.7.1.4)
pfus_dt (3949)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pfus_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pfus_dt%source (string) (7.9.7.1.4)
ploss_fus (3949)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%ploss_fus%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%ploss_fus%source (string) (7.9.7.1.4)
pfus_nbi (3949)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pfus_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pfus_nbi%source (string) (7.9.7.1.4)
pfus_th (3949)	scenario%heat_power%pfus_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pfus_th%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pfus_th%source (string) (7.9.7.1.4)
padd_tot (3949)	scenario%heat_power%padd_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%padd_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%padd_tot%source (string) (7.9.7.1.4)
pion_tot (3949)	scenario%heat_power%pion_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pion_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pion_tot%source (string) (7.9.7.1.4)
pion_fus (3949)	scenario%heat_power%pion_fus (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pion_fus%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pion_fus%source (string) (7.9.7.1.4)
pion_icrh (3949)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pion_icrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pion_icrh%source (string) (7.9.7.1.4)
pion_nbi (3949)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%pion_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pion_nbi%source (string) (7.9.7.1.4)
pioniz (3949)	scenario%heat_power%pioniz (scenario_ref) (7.9.7.1.411)

value (3958)	scenario%heat_power%pioniz%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%pioniz%source (string) (7.9.7.1.4)
ploss (3949)	scenario%heat_power%ploss (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%ploss%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%ploss%source (string) (7.9.7.1.4)
p_wth (3949)	scenario%heat_power%p_wth (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%p_wth%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%p_wth%source (string) (7.9.7.1.4)
p_w (3949)	scenario%heat_power%p_w (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%p_w%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%p_w%source (string) (7.9.7.1.4)
p_l2h_thr (3949)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%p_l2h_thr%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%p_l2h_thr%source (string) (7.9.7.1.4)
p_l2h_sc (3949)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%p_l2h_sc%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%p_l2h_sc%source (string) (7.9.7.1.4)
p_nbi_icrh (3949)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.7.1.2)
source (3958)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.7.1.4)
itb (3611)	scenario%itb (scenario_itb) (7.9.7.1.404)
q_min (3951)	scenario%itb%q_min (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%q_min%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%q_min%source (string) (7.9.7.1.4)
te_itb (3951)	scenario%itb%te_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%te_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%te_itb%source (string) (7.9.7.1.4)
ti_itb (3951)	scenario%itb%ti_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%ti_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%ti_itb%source (string) (7.9.7.1.4)
ne_itb (3951)	scenario%itb%ne_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%ne_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%ne_itb%source (string) (7.9.7.1.4)
ni_itb (3951)	scenario%itb%ni_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%ni_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%ni_itb%source (string) (7.9.7.1.4)
psi_itb (3951)	scenario%itb%psi_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%psi_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%psi_itb%source (string) (7.9.7.1.4)
phi_itb (3951)	scenario%itb%phi_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%phi_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%phi_itb%source (string) (7.9.7.1.4)
rho_itb (3951)	scenario%itb%rho_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%rho_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%rho_itb%source (string) (7.9.7.1.4)
h_itb (3951)	scenario%itb%h_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%h_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%h_itb%source (string) (7.9.7.1.4)
width_itb (3951)	scenario%itb%width_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%width_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%width_itb%source (string) (7.9.7.1.4)
vtor_itb (3951)	scenario%itb%vtor_itb (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%itb%vtor_itb%value (float) (7.9.7.1.2)
source (3958)	scenario%itb%vtor_itb%source (string) (7.9.7.1.4)
itb_type (3951)	scenario%itb%itb_type (scenario_int) (7.9.7.1.403)
value (3950)	scenario%itb%itb_type%value (integer) (7.9.7.1.3)
source (3950)	scenario%itb%itb_type%source (string) (7.9.7.1.4)
lim_div_wall (3611)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.7.1.405)
te_lim_div (3952)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.7.1.4)

ti_lim_div (3952)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.7.1.4)
ne_lim_div (3952)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.7.1.4)
ni_lim_div (3952)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.7.1.4)
q_peak_div (3952)	scenario%lim_div_wall%q_peak_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%q_peak_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%q_peak_div%source (string) (7.9.7.1.4)
q_peak_wall (3952)	scenario%lim_div_wall%q_peak_wall (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%q_peak_wall%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%q_peak_wall%source (string) (7.9.7.1.4)
surf_temp (3952)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%surf_temp%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%surf_temp%source (string) (7.9.7.1.4)
p_lim_div (3952)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.7.1.4)
p_rad_div (3952)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.7.1.4)
p_neut_div (3952)	scenario%lim_div_wall%p_neut_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_neut_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_neut_div%source (string) (7.9.7.1.4)
p_wall (3952)	scenario%lim_div_wall%p_wall (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_wall%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_wall%source (string) (7.9.7.1.4)
wall_temp (3952)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%wall_temp%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%wall_temp%source (string) (7.9.7.1.4)
wall_state (3952)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%wall_state%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%wall_state%source (string) (7.9.7.1.4)
detach_state (3952)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%detach_state%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%detach_state%source (string) (7.9.7.1.4)
pump_flux (3952)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%pump_flux%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%pump_flux%source (string) (7.9.7.1.4)
p_rad_fw (3952)	scenario%lim_div_wall%p_rad_fw (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_rad_fw%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_rad_fw%source (string) (7.9.7.1.4)
p_cond_fw (3952)	scenario%lim_div_wall%p_cond_fw (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_cond_fw%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_cond_fw%source (string) (7.9.7.1.4)
div_wetted (3952)	scenario%lim_div_wall%div_wetted (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%div_wetted%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%div_wetted%source (string) (7.9.7.1.4)
gas_puff (3952)	scenario%lim_div_wall%gas_puff (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%gas_puff%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%gas_puff%source (string) (7.9.7.1.4)
ar_concentr (3952)	scenario%lim_div_wall%ar_concentr (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%ar_concentr%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%ar_concentr%source (string) (7.9.7.1.4)
part_exhaust (3952)	scenario%lim_div_wall%part_exhaust (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%part_exhaust%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%part_exhaust%source (string) (7.9.7.1.4)
f_inner (3952)	scenario%lim_div_wall%f_inner (scenario_ref) (7.9.7.1.411)

value (3958)	scenario%lim_div_wall%f_inner%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%f_inner%source (string) (7.9.7.1.4)
f_outer (3952)	scenario%lim_div_wall%f_outer (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%f_outer%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%f_outer%source (string) (7.9.7.1.4)
f_pfr (3952)	scenario%lim_div_wall%f_pfr (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%f_pfr%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%f_pfr%source (string) (7.9.7.1.4)
f_rad_fw (3952)	scenario%lim_div_wall%f_rad_fw (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%f_rad_fw%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%f_rad_fw%source (string) (7.9.7.1.4)
q_div (3952)	scenario%lim_div_wall%q_div (vecflt_type) (7.9.7.1.18)
p_cond_div (3952)	scenario%lim_div_wall%p_cond_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_cond_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_cond_div%source (string) (7.9.7.1.4)
pol_ext (3952)	scenario%lim_div_wall%pol_ext (float) (7.9.7.1.2)
flux_exp (3952)	scenario%lim_div_wall%flux_exp (float) (7.9.7.1.2)
tilt_angle (3952)	scenario%lim_div_wall%tilt_angle (float) (7.9.7.1.2)
n_div (3952)	scenario%lim_div_wall%n_div (float) (7.9.7.1.2)
div_dz (3952)	scenario%lim_div_wall%div_dz (float) (7.9.7.1.2)
div_dro (3952)	scenario%lim_div_wall%div_dro (float) (7.9.7.1.2)
div_dri (3952)	scenario%lim_div_wall%div_dri (float) (7.9.7.1.2)
p_nh_div (3952)	scenario%lim_div_wall%p_nh_div (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%lim_div_wall%p_nh_div%value (float) (7.9.7.1.2)
source (3958)	scenario%lim_div_wall%p_nh_div%source (string) (7.9.7.1.4)
line_ave (3611)	scenario%line_ave (scenario_line_ave) (7.9.7.1.406)
ne_line (3953)	scenario%line_ave%ne_line (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%line_ave%ne_line%value (float) (7.9.7.1.2)
source (3958)	scenario%line_ave%ne_line%source (string) (7.9.7.1.4)
zeff_line (3953)	scenario%line_ave%zeff_line (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%line_ave%zeff_line%value (float) (7.9.7.1.2)
source (3958)	scenario%line_ave%zeff_line%source (string) (7.9.7.1.4)
ne_zeff_line (3953)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%line_ave%ne_zeff_line%value (float) (7.9.7.1.2)
source (3958)	scenario%line_ave%ne_zeff_line%source (string) (7.9.7.1.4)
dne_line_dt (3953)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%line_ave%dne_line_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%line_ave%dne_line_dt%source (string) (7.9.7.1.4)
neutron (3611)	scenario%neutron (scenario_neutron) (7.9.7.1.407)
ndd_tot (3954)	scenario%neutron%ndd_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndd_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndd_tot%source (string) (7.9.7.1.4)
ndd_th (3954)	scenario%neutron%ndd_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndd_th%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndd_th%source (string) (7.9.7.1.4)
ndd_nbi_th (3954)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndd_nbi_th%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndd_nbi_th%source (string) (7.9.7.1.4)
ndd_nbi_nbi (3954)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.7.1.4)
ndt_tot (3954)	scenario%neutron%ndt_tot (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndt_tot%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndt_tot%source (string) (7.9.7.1.4)
ndt_th (3954)	scenario%neutron%ndt_th (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%neutron%ndt_th%value (float) (7.9.7.1.2)
source (3958)	scenario%neutron%ndt_th%source (string) (7.9.7.1.4)
ninety_five (3611)	scenario%ninety_five (scenario_ninety_five) (7.9.7.1.408)
q_95 (3955)	scenario%ninety_five%q_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%q_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%q_95%source (string) (7.9.7.1.4)

elong_95 (3955)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%elong_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%elong_95%source (string) (7.9.7.1.4)
tria_95 (3955)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%tria_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%tria_95%source (string) (7.9.7.1.4)
tria_up_95 (3955)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%tria_up_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%tria_up_95%source (string) (7.9.7.1.4)
tria_lo_95 (3955)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%tria_lo_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%tria_lo_95%source (string) (7.9.7.1.4)
te_95 (3955)	scenario%ninety_five%te_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%te_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%te_95%source (string) (7.9.7.1.4)
ti_95 (3955)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%ti_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%ti_95%source (string) (7.9.7.1.4)
ne_95 (3955)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%ne_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%ne_95%source (string) (7.9.7.1.4)
ni_95 (3955)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%ni_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%ni_95%source (string) (7.9.7.1.4)
phi_95 (3955)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%phi_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%phi_95%source (string) (7.9.7.1.4)
rho_95 (3955)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%rho_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%rho_95%source (string) (7.9.7.1.4)
vtor_95 (3955)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%ninety_five%vtor_95%value (float) (7.9.7.1.2)
source (3958)	scenario%ninety_five%vtor_95%source (string) (7.9.7.1.4)
pedestal (3611)	scenario%pedestal (scenario_pedestal) (7.9.7.1.409)
te_ped (3956)	scenario%pedestal%te_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%te_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%te_ped%source (string) (7.9.7.1.4)
ti_ped (3956)	scenario%pedestal%ti_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%ti_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%ti_ped%source (string) (7.9.7.1.4)
ne_ped (3956)	scenario%pedestal%ne_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%ne_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%ne_ped%source (string) (7.9.7.1.4)
ni_ped (3956)	scenario%pedestal%ni_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%ni_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%ni_ped%source (string) (7.9.7.1.4)
psi_ped (3956)	scenario%pedestal%psi_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%psi_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%psi_ped%source (string) (7.9.7.1.4)
phi_ped (3956)	scenario%pedestal%phi_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%phi_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%phi_ped%source (string) (7.9.7.1.4)
rho_ped (3956)	scenario%pedestal%rho_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%rho_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%rho_ped%source (string) (7.9.7.1.4)
q_ped (3956)	scenario%pedestal%q_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%q_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%q_ped%source (string) (7.9.7.1.4)
pressure_ped (3956)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%pressure_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%pressure_ped%source (string) (7.9.7.1.4)

vtor_ped (3956)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%pedestal%vtor_ped%value (float) (7.9.7.1.2)
source (3958)	scenario%pedestal%vtor_ped%source (string) (7.9.7.1.4)
references (3611)	scenario%references (scenario_references) (7.9.7.1.412)
plh (3959)	scenario%references%plh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%plh%value (float) (7.9.7.1.2)
source (3958)	scenario%references%plh%source (string) (7.9.7.1.4)
picrh (3959)	scenario%references%picrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%picrh%value (float) (7.9.7.1.2)
source (3958)	scenario%references%picrh%source (string) (7.9.7.1.4)
pecrh (3959)	scenario%references%pecrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%pecrh%value (float) (7.9.7.1.2)
source (3958)	scenario%references%pecrh%source (string) (7.9.7.1.4)
pnbi (3959)	scenario%references%pnbi (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%pnbi%value (float) (7.9.7.1.2)
source (3958)	scenario%references%pnbi%source (string) (7.9.7.1.4)
ip (3959)	scenario%references%ip (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%ip%value (float) (7.9.7.1.2)
source (3958)	scenario%references%ip%source (string) (7.9.7.1.4)
bvac_r (3959)	scenario%references%bvac_r (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%bvac_r%value (float) (7.9.7.1.2)
source (3958)	scenario%references%bvac_r%source (string) (7.9.7.1.4)
zeffl (3959)	scenario%references%zeffl (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%zeffl%value (float) (7.9.7.1.2)
source (3958)	scenario%references%zeffl%source (string) (7.9.7.1.4)
nbar (3959)	scenario%references%nbar (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%nbar%value (float) (7.9.7.1.2)
source (3958)	scenario%references%nbar%source (string) (7.9.7.1.4)
xecrh (3959)	scenario%references%xecrh (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%xecrh%value (float) (7.9.7.1.2)
source (3958)	scenario%references%xecrh%source (string) (7.9.7.1.4)
pol_flux (3959)	scenario%references%pol_flux (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%pol_flux%value (float) (7.9.7.1.2)
source (3958)	scenario%references%pol_flux%source (string) (7.9.7.1.4)
enhancement (3959)	scenario%references%enhancement (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%enhancement%value (float) (7.9.7.1.2)
source (3958)	scenario%references%enhancement%source (string) (7.9.7.1.4)
isotopic (3959)	scenario%references%isotopic (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%isotopic%value (float) (7.9.7.1.2)
source (3958)	scenario%references%isotopic%source (string) (7.9.7.1.4)
nbi_td_ratio (3959)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%nbi_td_ratio%value (float) (7.9.7.1.2)
source (3958)	scenario%references%nbi_td_ratio%source (string) (7.9.7.1.4)
gas_puff (3959)	scenario%references%gas_puff (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%references%gas_puff%value (float) (7.9.7.1.2)
source (3958)	scenario%references%gas_puff%source (string) (7.9.7.1.4)
reactor (3611)	scenario%reactor (scenario_reactor) (7.9.7.1.410)
pnetwork (3957)	scenario%reactor%pnetwork (float) (7.9.7.1.2)
sol (3611)	scenario%sol (scenario_sol) (7.9.7.1.413)
l_te_sol (3960)	scenario%sol%l_te_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_te_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_te_sol%source (string) (7.9.7.1.4)
l_ti_sol (3960)	scenario%sol%l_ti_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_ti_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_ti_sol%source (string) (7.9.7.1.4)
l_ne_sol (3960)	scenario%sol%l_ne_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_ne_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_ne_sol%source (string) (7.9.7.1.4)
l_ni_sol (3960)	scenario%sol%l_ni_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_ni_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_ni_sol%source (string) (7.9.7.1.4)

l_qe_sol (3960)	scenario%sol%l_qe_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_qe_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_qe_sol%source (string) (7.9.7.1.4)
l_qi_sol (3960)	scenario%sol%l_qi_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%l_qi_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%l_qi_sol%source (string) (7.9.7.1.4)
p_rad_sol (3960)	scenario%sol%p_rad_sol (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%p_rad_sol%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%p_rad_sol%source (string) (7.9.7.1.4)
p_neut (3960)	scenario%sol%p_neut (float) (7.9.7.1.2)
gas_puff (3960)	scenario%sol%gas_puff (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%sol%gas_puff%value (float) (7.9.7.1.2)
source (3958)	scenario%sol%gas_puff%source (string) (7.9.7.1.4)
delta_r_in (3960)	scenario%sol%delta_r_in (float) (7.9.7.1.2)
delta_r_out (3960)	scenario%sol%delta_r_out (float) (7.9.7.1.2)
r_in (3960)	scenario%sol%r_in (float) (7.9.7.1.2)
r_out (3960)	scenario%sol%r_out (float) (7.9.7.1.2)
sol_width (3960)	scenario%sol%sol_width (float) (7.9.7.1.2)
vol_ave (3611)	scenario%vol_ave (scenario_vol_ave) (7.9.7.1.414)
te_ave (3961)	scenario%vol_ave%te_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%te_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%te_ave%source (string) (7.9.7.1.4)
ti_ave (3961)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%ti_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%ti_ave%source (string) (7.9.7.1.4)
ne_ave (3961)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%ne_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%ne_ave%source (string) (7.9.7.1.4)
dne_ave_dt (3961)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.7.1.4)
ni_ave (3961)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%ni_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%ni_ave%source (string) (7.9.7.1.4)
zeff_ave (3961)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%zeff_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%zeff_ave%source (string) (7.9.7.1.4)
ti_o_te_ave (3961)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.7.1.4)
meff_ave (3961)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%meff_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%meff_ave%source (string) (7.9.7.1.4)
pellet_flux (3961)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%pellet_flux%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%pellet_flux%source (string) (7.9.7.1.4)
nions_ave (3961)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.7.1.18)
omega_ave (3961)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.7.1.411)
value (3958)	scenario%vol_ave%omega_ave%value (float) (7.9.7.1.2)
source (3958)	scenario%vol_ave%omega_ave%source (string) (7.9.7.1.4)
codeparam (3611)	scenario%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	scenario%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	scenario%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	scenario%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	scenario%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	scenario%codeparam%output_flag (integer) (7.9.7.1.3)
time (3611)	scenario%time (float) (7.9.7.1.2)

7.9.7.2.43 solcurdiag

datainfo (3612)	solcurdiag%datainfo (datainfo) (7.9.7.1.155)

dataprovider (3702)	solcurdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	solcurdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	solcurdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	solcurdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	solcurdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	solcurdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	solcurdiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	solcurdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	solcurdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	solcurdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	solcurdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	solcurdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	solcurdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	solcurdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	solcurdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	solcurdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	solcurdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	solcurdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
sol_current (3612)	solcurdiag%sol_current(:) (solcurdiag_sol_current) (7.9.7.1.422)
setup (3969)	solcurdiag%sol_current(:)%setup (solcurdiag_sol_current_setup) (7.9.7.1.423)
name (3970)	solcurdiag%sol_current(:)%setup%name (string) (7.9.7.1.4)
id (3970)	solcurdiag%sol_current(:)%setup%id (integer) (7.9.7.1.3)
position (3970)	solcurdiag%sol_current(:)%setup%position (rz1D) (7.9.7.1.380)
r (3927)	solcurdiag%sol_current(:)%setup%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	solcurdiag%sol_current(:)%setup%position%z (vecflt_type) (7.9.7.1.18)
tiles_turn (3970)	solcurdiag%sol_current(:)%setup%tiles_turn (integer) (7.9.7.1.3)
measure (3969)	solcurdiag%sol_current(:)%measure (exp0D) (7.9.7.1.217)
value (3764)	solcurdiag%sol_current(:)%measure%value (float) (7.9.7.1.2)
abserror (3764)	solcurdiag%sol_current(:)%measure%abserror (float) (7.9.7.1.2)
relerror (3764)	solcurdiag%sol_current(:)%measure%relerror (float) (7.9.7.1.2)
clusters (3612)	solcurdiag%clusters(:) (clusters) (7.9.7.1.97)
name (3644)	solcurdiag%clusters(:)%name (string) (7.9.7.1.4)
start (3644)	solcurdiag%clusters(:)%start (integer) (7.9.7.1.3)
finish (3644)	solcurdiag%clusters(:)%finish (integer) (7.9.7.1.3)
time (3612)	solcurdiag%time (float) (7.9.7.1.2)
codeparam (3612)	solcurdiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	solcurdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	solcurdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	solcurdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	solcurdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	solcurdiag%codeparam%output_flag (integer) (7.9.7.1.3)

7.9.7.2.44 temporary

datainfo (3613)	temporary%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	temporary%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	temporary%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	temporary%datainfo%source (string) (7.9.7.1.4)
comment (3702)	temporary%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	temporary%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	temporary%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	temporary%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	temporary%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	temporary%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	temporary%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	temporary%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	temporary%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	temporary%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	temporary%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	temporary%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	temporary%datainfo%putinfo%putaccess (string) (7.9.7.1.4)

putlocation (3910)	temporary%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	temporary%datainfo%putinfo%rights (string) (7.9.7.1.4)
non_timed (3613)	temporary%non_timed (temporary_nt) (7.9.7.1.444)
float0d (3991)	temporary%non_timed%float0d(:) (temporary_nt_0dr) (7.9.7.1.447)
identifier (3994)	temporary%non_timed%float0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%float0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%float0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%float0d(:)%identifier%description (string) (7.9.7.1.4)
value (3994)	temporary%non_timed%float0d(:)%value (float) (7.9.7.1.2)
integer0d (3991)	temporary%non_timed%integer0d(:) (temporary_nt_0di) (7.9.7.1.446)
identifier (3993)	temporary%non_timed%integer0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%integer0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%integer0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%integer0d(:)%identifier%description (string) (7.9.7.1.4)
value (3993)	temporary%non_timed%integer0d(:)%value (integer) (7.9.7.1.3)
complex0d (3991)	temporary%non_timed%complex0d(:) (temporary_nt_0dc) (7.9.7.1.445)
identifier (3992)	temporary%non_timed%complex0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%complex0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%complex0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%complex0d(:)%identifier%description (string) (7.9.7.1.4)
value (3992)	temporary%non_timed%complex0d(:)%value (cplx_type) (7.9.7.1.13)
string0d (3991)	temporary%non_timed%string0d(:) (temporary_nt_0ds) (7.9.7.1.448)
identifier (3995)	temporary%non_timed%string0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%string0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%string0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%string0d(:)%identifier%description (string) (7.9.7.1.4)
value (3995)	temporary%non_timed%string0d(:)%value (string) (7.9.7.1.4)
float1d (3991)	temporary%non_timed%float1d(:) (temporary_nt_1dr) (7.9.7.1.451)
identifier (3998)	temporary%non_timed%float1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%float1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%float1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%float1d(:)%identifier%description (string) (7.9.7.1.4)
value (3998)	temporary%non_timed%float1d(:)%value (vecflt_type) (7.9.7.1.18)
integer1d (3991)	temporary%non_timed%integer1d(:) (temporary_nt_1di) (7.9.7.1.450)
identifier (3997)	temporary%non_timed%integer1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%integer1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%integer1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%integer1d(:)%identifier%description (string) (7.9.7.1.4)
value (3997)	temporary%non_timed%integer1d(:)%value (vecint_type) (7.9.7.1.19)
string1d (3991)	temporary%non_timed%string1d(:) (temporary_nt_1dr) (7.9.7.1.451)
identifier (3998)	temporary%non_timed%string1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%string1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%string1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%string1d(:)%identifier%description (string) (7.9.7.1.4)
value (3998)	temporary%non_timed%string1d(:)%value (vecflt_type) (7.9.7.1.18)
complex1d (3991)	temporary%non_timed%complex1d(:) (temporary_nt_1dc) (7.9.7.1.449)
identifier (3996)	temporary%non_timed%complex1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%complex1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%complex1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%complex1d(:)%identifier%description (string) (7.9.7.1.4)
value (3996)	temporary%non_timed%complex1d(:)%value (veccplx_type) (7.9.7.1.17)
float2d (3991)	temporary%non_timed%float2d(:) (temporary_nt_2dr) (7.9.7.1.455)
identifier (4002)	temporary%non_timed%float2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%float2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%float2d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%float2d(:)%identifier%description (string) (7.9.7.1.4)
value (4002)	temporary%non_timed%float2d(:)%value (matflt_type) (7.9.7.1.15)
integer2d (3991)	temporary%non_timed%integer2d(:) (temporary_nt_2di) (7.9.7.1.454)
identifier (4001)	temporary%non_timed%integer2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%integer2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%integer2d(:)%identifier%flag (integer) (7.9.7.1.3)

description (3803)	temporary%non_timed%integer2d(:)%identifier%description (string) (7.9.7.1.4)
value (4001)	temporary%non_timed%integer2d(:)%value (matint_type) (7.9.7.1.16)
complex2d (3991)	temporary%non_timed%complex2d(:) (temporary_nt_2dc) (7.9.7.1.453)
identifier (4000)	temporary%non_timed%complex2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%complex2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%complex2d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%complex2d(:)%identifier%description (string) (7.9.7.1.4)
value (4000)	temporary%non_timed%complex2d(:)%value (matcplx_type) (7.9.7.1.14)
float3d (3991)	temporary%non_timed%float3d(:) (temporary_nt_3dr) (7.9.7.1.458)
identifier (4005)	temporary%non_timed%float3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%float3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%float3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%float3d(:)%identifier%description (string) (7.9.7.1.4)
value (4005)	temporary%non_timed%float3d(:)%value (array3dflt_type) (7.9.7.1.7)
integer3d (3991)	temporary%non_timed%integer3d(:) (temporary_nt_3di) (7.9.7.1.457)
identifier (4004)	temporary%non_timed%integer3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%integer3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%integer3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%integer3d(:)%identifier%description (string) (7.9.7.1.4)
value (4004)	temporary%non_timed%integer3d(:)%value (array3dint_type) (7.9.7.1.8)
complex3d (3991)	temporary%non_timed%complex3d(:) (temporary_nt_3dc) (7.9.7.1.456)
identifier (4003)	temporary%non_timed%complex3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%complex3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%complex3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%complex3d(:)%identifier%description (string) (7.9.7.1.4)
value (4003)	temporary%non_timed%complex3d(:)%value (array3dcplx_type) (7.9.7.1.6)
float4d (3991)	temporary%non_timed%float4d(:) (temporary_nt_4dr) (7.9.7.1.459)
identifier (4006)	temporary%non_timed%float4d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%non_timed%float4d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%non_timed%float4d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%non_timed%float4d(:)%identifier%description (string) (7.9.7.1.4)
value (4006)	temporary%non_timed%float4d(:)%value (array4dflt_type) (7.9.7.1.9)
timed (3613)	temporary%timed (temporary_t) (7.9.7.1.460)
float0d (4007)	temporary%timed%float0d(:) (temporary_t_0dr) (7.9.7.1.463)
identifier (4010)	temporary%timed%float0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%float0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%float0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%float0d(:)%identifier%description (string) (7.9.7.1.4)
value (4010)	temporary%timed%float0d(:)%value (float) (7.9.7.1.2)
integer0d (4007)	temporary%timed%integer0d(:) (temporary_t_0di) (7.9.7.1.462)
identifier (4009)	temporary%timed%integer0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%integer0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%integer0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%integer0d(:)%identifier%description (string) (7.9.7.1.4)
value (4009)	temporary%timed%integer0d(:)%value (integer) (7.9.7.1.3)
complex0d (4007)	temporary%timed%complex0d(:) (temporary_t_0dc) (7.9.7.1.461)
identifier (4008)	temporary%timed%complex0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%complex0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%complex0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%complex0d(:)%identifier%description (string) (7.9.7.1.4)
value (4008)	temporary%timed%complex0d(:)%value (cplx_type) (7.9.7.1.13)
string0d (4007)	temporary%timed%string0d(:) (temporary_t_0ds) (7.9.7.1.464)
identifier (4011)	temporary%timed%string0d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%string0d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%string0d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%string0d(:)%identifier%description (string) (7.9.7.1.4)
value (4011)	temporary%timed%string0d(:)%value (string) (7.9.7.1.4)
float1d (4007)	temporary%timed%float1d(:) (temporary_t_1dr) (7.9.7.1.467)
identifier (4014)	temporary%timed%float1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%float1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%float1d(:)%identifier%flag (integer) (7.9.7.1.3)

description (3803)	temporary%timed%float1d(:)%identifier%description (string) (7.9.7.1.4)
value (4014)	temporary%timed%float1d(:)%value (vecflt_type) (7.9.7.1.18)
integer1d (4007)	temporary%timed%integer1d(:) (temporary_t_1di) (7.9.7.1.466)
identifier (4013)	temporary%timed%integer1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%integer1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%integer1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%integer1d(:)%identifier%description (string) (7.9.7.1.4)
value (4013)	temporary%timed%integer1d(:)%value (vecint_type) (7.9.7.1.19)
complex1d (4007)	temporary%timed%complex1d(:) (temporary_t_1dc) (7.9.7.1.465)
identifier (4012)	temporary%timed%complex1d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%complex1d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%complex1d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%complex1d(:)%identifier%description (string) (7.9.7.1.4)
value (4012)	temporary%timed%complex1d(:)%value (veccplx_type) (7.9.7.1.17)
float2d (4007)	temporary%timed%float2d(:) (temporary_t_2dr) (7.9.7.1.470)
identifier (4017)	temporary%timed%float2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%float2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%float2d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%float2d(:)%identifier%description (string) (7.9.7.1.4)
value (4017)	temporary%timed%float2d(:)%value (matflt_type) (7.9.7.1.15)
integer2d (4007)	temporary%timed%integer2d(:) (temporary_t_2di) (7.9.7.1.469)
identifier (4016)	temporary%timed%integer2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%integer2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%integer2d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%integer2d(:)%identifier%description (string) (7.9.7.1.4)
value (4016)	temporary%timed%integer2d(:)%value (matint_type) (7.9.7.1.16)
complex2d (4007)	temporary%timed%complex2d(:) (temporary_t_2dc) (7.9.7.1.468)
identifier (4015)	temporary%timed%complex2d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%complex2d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%complex2d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%complex2d(:)%identifier%description (string) (7.9.7.1.4)
value (4015)	temporary%timed%complex2d(:)%value (matcplx_type) (7.9.7.1.14)
float3d (4007)	temporary%timed%float3d(:) (temporary_t_3dr) (7.9.7.1.473)
identifier (4020)	temporary%timed%float3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%float3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%float3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%float3d(:)%identifier%description (string) (7.9.7.1.4)
value (4020)	temporary%timed%float3d(:)%value (array3dflt_type) (7.9.7.1.7)
integer3d (4007)	temporary%timed%integer3d(:) (temporary_t_3di) (7.9.7.1.472)
identifier (4019)	temporary%timed%integer3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%integer3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%integer3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%integer3d(:)%identifier%description (string) (7.9.7.1.4)
value (4019)	temporary%timed%integer3d(:)%value (array3dint_type) (7.9.7.1.8)
complex3d (4007)	temporary%timed%complex3d(:) (temporary_t_3dc) (7.9.7.1.471)
identifier (4018)	temporary%timed%complex3d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%complex3d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%complex3d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%complex3d(:)%identifier%description (string) (7.9.7.1.4)
value (4018)	temporary%timed%complex3d(:)%value (array3dcplx_type) (7.9.7.1.6)
float4d (4007)	temporary%timed%float4d(:) (temporary_t_4dr) (7.9.7.1.474)
identifier (4021)	temporary%timed%float4d(:)%identifier (identifier) (7.9.7.1.256)
id (3803)	temporary%timed%float4d(:)%identifier%id (string) (7.9.7.1.4)
flag (3803)	temporary%timed%float4d(:)%identifier%flag (integer) (7.9.7.1.3)
description (3803)	temporary%timed%float4d(:)%identifier%description (string) (7.9.7.1.4)
value (4021)	temporary%timed%float4d(:)%value (array4dflt_type) (7.9.7.1.9)
codeparam (3613)	temporary%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	temporary%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	temporary%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	temporary%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	temporary%codeparam%output_diag (string) (7.9.7.1.4)

output_flag (3645)	temporary%codeparam%output_flag (integer) (7.9.7.1.3)
time (3613)	temporary%time (float) (7.9.7.1.2)

7.9.7.2.45 topinfo

dataprovider (3614)	topinfo%dataprovider (string) (7.9.7.1.4)
description (3614)	topinfo%description (string) (7.9.7.1.4)
firstputdate (3614)	topinfo%firstputdate (string) (7.9.7.1.4)
lastupdate (3614)	topinfo%lastupdate (string) (7.9.7.1.4)
source (3614)	topinfo%source (string) (7.9.7.1.4)
comment (3614)	topinfo%comment (string) (7.9.7.1.4)
dataversion (3614)	topinfo%dataversion (string) (7.9.7.1.4)
workflow (3614)	topinfo%workflow (string) (7.9.7.1.4)
entry (3614)	topinfo%entry (entry_def) (7.9.7.1.208)
user (3755)	topinfo%entry%user (string) (7.9.7.1.4)
machine (3755)	topinfo%entry%machine (string) (7.9.7.1.4)
shot (3755)	topinfo%entry%shot (integer) (7.9.7.1.3)
run (3755)	topinfo%entry%run (integer) (7.9.7.1.3)
parent_entry (3614)	topinfo%parent_entry (entry_def) (7.9.7.1.208)
user (3755)	topinfo%parent_entry%user (string) (7.9.7.1.4)
machine (3755)	topinfo%parent_entry%machine (string) (7.9.7.1.4)
shot (3755)	topinfo%parent_entry%shot (integer) (7.9.7.1.3)
run (3755)	topinfo%parent_entry%run (integer) (7.9.7.1.3)
mdinfo (3614)	topinfo%mdinfo (mdinfo) (7.9.7.1.283)
shot_min (3830)	topinfo%mdinfo%shot_min (integer) (7.9.7.1.3)
shot_max (3830)	topinfo%mdinfo%shot_max (integer) (7.9.7.1.3)
md_entry (3830)	topinfo%mdinfo%md_entry (entry_def) (7.9.7.1.208)
user (3755)	topinfo%mdinfo%md_entry%user (string) (7.9.7.1.4)
machine (3755)	topinfo%mdinfo%md_entry%machine (string) (7.9.7.1.4)
shot (3755)	topinfo%mdinfo%md_entry%shot (integer) (7.9.7.1.3)
run (3755)	topinfo%mdinfo%md_entry%run (integer) (7.9.7.1.3)

7.9.7.2.46 toroidfield

datainfo (3615)	toroidfield%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	toroidfield%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	toroidfield%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	toroidfield%datainfo%source (string) (7.9.7.1.4)
comment (3702)	toroidfield%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	toroidfield%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	toroidfield%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	toroidfield%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	toroidfield%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	toroidfield%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	toroidfield%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	toroidfield%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	toroidfield%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	toroidfield%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	toroidfield%datainfo%putinfo%rights (string) (7.9.7.1.4)
desc_tfcoils (3615)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.7.1.475)
type (4022)	toroidfield%desc_tfcoils%type (integer) (7.9.7.1.3)
phi (4022)	toroidfield%desc_tfcoils%phi (float) (7.9.7.1.2)
circularcoil (4022)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.7.1.96)
centre (3643)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.7.1.379)
r (3926)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.7.1.2)
z (3926)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.7.1.2)
hlength (3643)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.7.1.2)

radialhwidth (3643)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.7.1.2)
planecoil (4022)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.7.1.351)
coordinates (3898)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.7.1.380)
r (3927)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.7.1.18)
z (3927)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.7.1.18)
hlength (3898)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.7.1.18)
radialhwidth (3898)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.7.1.18)
inboard (4022)	toroidfield%desc_tfcoils%inboard (tf_structure) (7.9.7.1.477)
jcable (4024)	toroidfield%desc_tfcoils%inboard%jcable (float) (7.9.7.1.2)
tisotf (4024)	toroidfield%desc_tfcoils%inboard%tisotf (float) (7.9.7.1.2)
efcasing (4024)	toroidfield%desc_tfcoils%inboard%efcasing (float) (7.9.7.1.2)
escasing (4024)	toroidfield%desc_tfcoils%inboard%escasing (float) (7.9.7.1.2)
sigjackettf (4024)	toroidfield%desc_tfcoils%inboard%sigjackettf (float) (7.9.7.1.2)
sigvaulttf (4024)	toroidfield%desc_tfcoils%inboard%sigvaulttf (float) (7.9.7.1.2)
ktf (4024)	toroidfield%desc_tfcoils%inboard%ktf (float) (7.9.7.1.2)
ritf (4024)	toroidfield%desc_tfcoils%inboard%ritf (float) (7.9.7.1.2)
riitf (4024)	toroidfield%desc_tfcoils%inboard%riitf (float) (7.9.7.1.2)
retf (4024)	toroidfield%desc_tfcoils%inboard%retf (float) (7.9.7.1.2)
he_fraction (4024)	toroidfield%desc_tfcoils%inboard%he_fraction (float) (7.9.7.1.2)
ss_fraction (4024)	toroidfield%desc_tfcoils%inboard%ss_fraction (float) (7.9.7.1.2)
pow_dens_wp (4024)	toroidfield%desc_tfcoils%inboard%pow_dens_wp (float) (7.9.7.1.2)
outboard (4022)	toroidfield%desc_tfcoils%outboard (tf_structure) (7.9.7.1.477)
jcable (4024)	toroidfield%desc_tfcoils%outboard%jcable (float) (7.9.7.1.2)
tisotf (4024)	toroidfield%desc_tfcoils%outboard%tisotf (float) (7.9.7.1.2)
efcasing (4024)	toroidfield%desc_tfcoils%outboard%efcasing (float) (7.9.7.1.2)
escasing (4024)	toroidfield%desc_tfcoils%outboard%escasing (float) (7.9.7.1.2)
sigjackettf (4024)	toroidfield%desc_tfcoils%outboard%sigjackettf (float) (7.9.7.1.2)
sigvaulttf (4024)	toroidfield%desc_tfcoils%outboard%sigvaulttf (float) (7.9.7.1.2)
ktf (4024)	toroidfield%desc_tfcoils%outboard%ktf (float) (7.9.7.1.2)
ritf (4024)	toroidfield%desc_tfcoils%outboard%ritf (float) (7.9.7.1.2)
riitf (4024)	toroidfield%desc_tfcoils%outboard%riitf (float) (7.9.7.1.2)
retf (4024)	toroidfield%desc_tfcoils%outboard%retf (float) (7.9.7.1.2)
he_fraction (4024)	toroidfield%desc_tfcoils%outboard%he_fraction (float) (7.9.7.1.2)
ss_fraction (4024)	toroidfield%desc_tfcoils%outboard%ss_fraction (float) (7.9.7.1.2)
pow_dens_wp (4024)	toroidfield%desc_tfcoils%outboard%pow_dens_wp (float) (7.9.7.1.2)
nturns (3615)	toroidfield%nturns (integer) (7.9.7.1.3)
ncoils (3615)	toroidfield%ncoils (integer) (7.9.7.1.3)
current (3615)	toroidfield%current (exp0D) (7.9.7.1.217)
value (3764)	toroidfield%current%value (float) (7.9.7.1.2)
abserror (3764)	toroidfield%current%abserror (float) (7.9.7.1.2)
relerror (3764)	toroidfield%current%relerror (float) (7.9.7.1.2)
bvac_r (3615)	toroidfield%bvac_r (exp0D) (7.9.7.1.217)
value (3764)	toroidfield%bvac_r%value (float) (7.9.7.1.2)
abserror (3764)	toroidfield%bvac_r%abserror (float) (7.9.7.1.2)
relerror (3764)	toroidfield%bvac_r%relerror (float) (7.9.7.1.2)
r0 (3615)	toroidfield%r0 (float) (7.9.7.1.2)
p_cryo (3615)	toroidfield%p_cryo (float) (7.9.7.1.2)
wp_nh_max (3615)	toroidfield%wp_nh_max (float) (7.9.7.1.2)
tfc_nh (3615)	toroidfield%tfc_nh (float) (7.9.7.1.2)
neut_flux_inb (3615)	toroidfield%neut_flux_inb (float) (7.9.7.1.2)
neut_flux_outb (3615)	toroidfield%neut_flux_outb (float) (7.9.7.1.2)
codeparam (3615)	toroidfield%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	toroidfield%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	toroidfield%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	toroidfield%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	toroidfield%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	toroidfield%codeparam%output_flag (integer) (7.9.7.1.3)
time (3615)	toroidfield%time (float) (7.9.7.1.2)

7.9.7.2.47 tsdiag

datainfo (3616)	tsdiag%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	tsdiag%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	tsdiag%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	tsdiag%datainfo%source (string) (7.9.7.1.4)
comment (3702)	tsdiag%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	tsdiag%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	tsdiag%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	tsdiag%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	tsdiag%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	tsdiag%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	tsdiag%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	tsdiag%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	tsdiag%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	tsdiag%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	tsdiag%datainfo%putinfo%rights (string) (7.9.7.1.4)
setup (3616)	tsdiag%setup (tssetup) (7.9.7.1.489)
position (4036)	tsdiag%setup%position (rzphi1D) (7.9.7.1.386)
r (3933)	tsdiag%setup%position%r (vecflt_type) (7.9.7.1.18)
z (3933)	tsdiag%setup%position%z (vecflt_type) (7.9.7.1.18)
phi (3933)	tsdiag%setup%position%phi (vecflt_type) (7.9.7.1.18)
measure (3616)	tsdiag%measure (tsmeasure) (7.9.7.1.488)
te (4035)	tsdiag%measure%te (exp1D) (7.9.7.1.218)
value (3765)	tsdiag%measure%te%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	tsdiag%measure%te%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	tsdiag%measure%te%relerror (vecflt_type) (7.9.7.1.18)
ne (4035)	tsdiag%measure%ne (exp1D) (7.9.7.1.218)
value (3765)	tsdiag%measure%ne%value (vecflt_type) (7.9.7.1.18)
abserror (3765)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.7.1.18)
relerror (3765)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.7.1.18)
codeparam (3616)	tsdiag%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	tsdiag%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	tsdiag%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	tsdiag%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	tsdiag%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	tsdiag%codeparam%output_flag (integer) (7.9.7.1.3)
time (3616)	tsdiag%time (float) (7.9.7.1.2)

7.9.7.2.48 turbulence

datainfo (3617)	turbulence%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	turbulence%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	turbulence%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	turbulence%datainfo%source (string) (7.9.7.1.4)
comment (3702)	turbulence%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	turbulence%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	turbulence%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	turbulence%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	turbulence%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	turbulence%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	turbulence%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	turbulence%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	turbulence%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	turbulence%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	turbulence%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	turbulence%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	turbulence%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	turbulence%datainfo%putinfo%putlocation (string) (7.9.7.1.4)

rights (3910)	turbulence%datainfo%putinfo%rights (string) (7.9.7.1.4)
composition (3617)	turbulence%composition (turbcomposition) (7.9.7.1.490)
amn (4037)	turbulence%composition%amn (vecflt_type) (7.9.7.1.18)
zn (4037)	turbulence%composition%zn (vecflt_type) (7.9.7.1.18)
zion (4037)	turbulence%composition%zion (vecflt_type) (7.9.7.1.18)
ie_mass (4037)	turbulence%composition%ie_mass (vecflt_type) (7.9.7.1.18)
coordsys (3617)	turbulence%coordsys (turbcoordsys) (7.9.7.1.491)
grid_type (4038)	turbulence%coordsys%grid_type (string) (7.9.7.1.4)
turbgrid (4038)	turbulence%coordsys%turbgrid (turbgrid) (7.9.7.1.493)
dim1 (4040)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.7.1.18)
dim2 (4040)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.7.1.18)
dim3 (4040)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.7.1.18)
dim_v1 (4040)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.7.1.18)
dim_v2 (4040)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.7.1.18)
jacobian (4038)	turbulence%coordsys%jacobian (matflt_type) (7.9.7.1.15)
g_11 (4038)	turbulence%coordsys%g_11 (matflt_type) (7.9.7.1.15)
g_12 (4038)	turbulence%coordsys%g_12 (matflt_type) (7.9.7.1.15)
g_13 (4038)	turbulence%coordsys%g_13 (matflt_type) (7.9.7.1.15)
g_22 (4038)	turbulence%coordsys%g_22 (matflt_type) (7.9.7.1.15)
g_23 (4038)	turbulence%coordsys%g_23 (matflt_type) (7.9.7.1.15)
g_33 (4038)	turbulence%coordsys%g_33 (matflt_type) (7.9.7.1.15)
position (4038)	turbulence%coordsys%position (rzphi3D) (7.9.7.1.390)
r (3937)	turbulence%coordsys%position%r (array3dflt_type) (7.9.7.1.7)
z (3937)	turbulence%coordsys%position%z (array3dflt_type) (7.9.7.1.7)
phi (3937)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.7.1.7)
var0d (3617)	turbulence%var0d (turbvar0d) (7.9.7.1.495)
dtime_type (4042)	turbulence%var0d%dtime_type (string) (7.9.7.1.4)
dtime (4042)	turbulence%var0d%dtime (vecflt_type) (7.9.7.1.18)
en_exb (4042)	turbulence%var0d%en_exb (vecflt_type) (7.9.7.1.18)
en_mag (4042)	turbulence%var0d%en_mag (vecflt_type) (7.9.7.1.18)
en_el_th (4042)	turbulence%var0d%en_el_th (vecflt_type) (7.9.7.1.18)
en_ion_th (4042)	turbulence%var0d%en_ion_th (matflt_type) (7.9.7.1.15)
en_el_par (4042)	turbulence%var0d%en_el_par (vecflt_type) (7.9.7.1.18)
en_ion_par (4042)	turbulence%var0d%en_ion_par (matflt_type) (7.9.7.1.15)
en_tot (4042)	turbulence%var0d%en_tot (vecflt_type) (7.9.7.1.18)
fl_el (4042)	turbulence%var0d%fl_el (vecflt_type) (7.9.7.1.18)
fl_heatel (4042)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.7.1.18)
fl_ion (4042)	turbulence%var0d%fl_ion (matflt_type) (7.9.7.1.15)
fl_heation (4042)	turbulence%var0d%fl_heation (matflt_type) (7.9.7.1.15)
fl_magel (4042)	turbulence%var0d%fl_magel (vecflt_type) (7.9.7.1.18)
fl_magheatel (4042)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.7.1.18)
fl_magion (4042)	turbulence%var0d%fl_magion (matflt_type) (7.9.7.1.15)
flmagheation (4042)	turbulence%var0d%flmagheation (matflt_type) (7.9.7.1.15)
var1d (3617)	turbulence%var1d (turbvar1d) (7.9.7.1.496)
rho_tor_norm (4043)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.7.1.18)
phi (4043)	turbulence%var1d%phi (vecflt_type) (7.9.7.1.18)
er (4043)	turbulence%var1d%er (vecflt_type) (7.9.7.1.18)
vor (4043)	turbulence%var1d%vor (vecflt_type) (7.9.7.1.18)
apl (4043)	turbulence%var1d%apl (vecflt_type) (7.9.7.1.18)
jpl (4043)	turbulence%var1d%jpl (vecflt_type) (7.9.7.1.18)
ne (4043)	turbulence%var1d%ne (vecflt_type) (7.9.7.1.18)
te (4043)	turbulence%var1d%te (vecflt_type) (7.9.7.1.18)
ni (4043)	turbulence%var1d%ni (matflt_type) (7.9.7.1.15)
ti (4043)	turbulence%var1d%ti (matflt_type) (7.9.7.1.15)
ui (4043)	turbulence%var1d%ui (matflt_type) (7.9.7.1.15)
var2d (3617)	turbulence%var2d (turbvar2d) (7.9.7.1.497)
rho_tor_norm (4044)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.7.1.18)
theta (4044)	turbulence%var2d%theta (vecflt_type) (7.9.7.1.18)
phi (4044)	turbulence%var2d%phi (matflt_type) (7.9.7.1.15)
apl (4044)	turbulence%var2d%apl (matflt_type) (7.9.7.1.15)
jpl (4044)	turbulence%var2d%jpl (matflt_type) (7.9.7.1.15)

vor (4044)	turbulence%var2d%vor (matflt_type) (7.9.7.1.15)
ne (4044)	turbulence%var2d%ne (matflt_type) (7.9.7.1.15)
te (4044)	turbulence%var2d%te (matflt_type) (7.9.7.1.15)
ni (4044)	turbulence%var2d%ni (array3dflt_type) (7.9.7.1.7)
ti (4044)	turbulence%var2d%ti (array3dflt_type) (7.9.7.1.7)
ui (4044)	turbulence%var2d%ui (array3dflt_type) (7.9.7.1.7)
var3d (3617)	turbulence%var3d (turbvar3d) (7.9.7.1.498)
phi (4045)	turbulence%var3d%phi (array3dflt_type) (7.9.7.1.7)
vor (4045)	turbulence%var3d%vor (array3dflt_type) (7.9.7.1.7)
jpl (4045)	turbulence%var3d%jpl (array3dflt_type) (7.9.7.1.7)
ne (4045)	turbulence%var3d%ne (array3dflt_type) (7.9.7.1.7)
var4d (3617)	turbulence%var4d (turbvar4d) (7.9.7.1.499)
fe (4046)	turbulence%var4d%fe (array4dflt_type) (7.9.7.1.9)
fi (4046)	turbulence%var4d%fi (array5dflt_type) (7.9.7.1.10)
var5d (3617)	turbulence%var5d (turbvar5d) (7.9.7.1.500)
fe (4047)	turbulence%var5d%fe (array5dflt_type) (7.9.7.1.10)
fi (4047)	turbulence%var5d%fi (array6dflt_type) (7.9.7.1.11)
spec1d (3617)	turbulence%spec1d (turbspec1d) (7.9.7.1.494)
kperp (4041)	turbulence%spec1d%kperp (vecflt_type) (7.9.7.1.18)
phi (4041)	turbulence%spec1d%phi (vecflt_type) (7.9.7.1.18)
vor (4041)	turbulence%spec1d%vor (vecflt_type) (7.9.7.1.18)
b (4041)	turbulence%spec1d%b (vecflt_type) (7.9.7.1.18)
jpl (4041)	turbulence%spec1d%jpl (vecflt_type) (7.9.7.1.18)
ne (4041)	turbulence%spec1d%ne (vecflt_type) (7.9.7.1.18)
te (4041)	turbulence%spec1d%te (vecflt_type) (7.9.7.1.18)
ti (4041)	turbulence%spec1d%ti (matflt_type) (7.9.7.1.15)
fe (4041)	turbulence%spec1d%fe (vecflt_type) (7.9.7.1.18)
qe (4041)	turbulence%spec1d%qe (vecflt_type) (7.9.7.1.18)
qi (4041)	turbulence%spec1d%qi (matflt_type) (7.9.7.1.15)
me (4041)	turbulence%spec1d%me (vecflt_type) (7.9.7.1.18)
mi (4041)	turbulence%spec1d%mi (matflt_type) (7.9.7.1.15)
env1d (3617)	turbulence%env1d (turbenv1d) (7.9.7.1.492)
theta (4039)	turbulence%env1d%theta (vecflt_type) (7.9.7.1.18)
phi (4039)	turbulence%env1d%phi (vecflt_type) (7.9.7.1.18)
vor (4039)	turbulence%env1d%vor (vecflt_type) (7.9.7.1.18)
jpl (4039)	turbulence%env1d%jpl (vecflt_type) (7.9.7.1.18)
ne (4039)	turbulence%env1d%ne (vecflt_type) (7.9.7.1.18)
he (4039)	turbulence%env1d%he (vecflt_type) (7.9.7.1.18)
te (4039)	turbulence%env1d%te (vecflt_type) (7.9.7.1.18)
ni (4039)	turbulence%env1d%ni (matflt_type) (7.9.7.1.15)
ti (4039)	turbulence%env1d%ti (matflt_type) (7.9.7.1.15)
ui (4039)	turbulence%env1d%ui (matflt_type) (7.9.7.1.15)
fe (4039)	turbulence%env1d%fe (vecflt_type) (7.9.7.1.18)
qe (4039)	turbulence%env1d%qe (vecflt_type) (7.9.7.1.18)
qi (4039)	turbulence%env1d%qi (matflt_type) (7.9.7.1.15)
me (4039)	turbulence%env1d%me (vecflt_type) (7.9.7.1.18)
mi (4039)	turbulence%env1d%mi (matflt_type) (7.9.7.1.15)
codeparam (3617)	turbulence%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	turbulence%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	turbulence%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	turbulence%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	turbulence%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	turbulence%codeparam%output_flag (integer) (7.9.7.1.3)
time (3617)	turbulence%time (float) (7.9.7.1.2)

7.9.7.2.49 wall

datainfo (3618)	wall%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	wall%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	wall%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	wall%datainfo%source (string) (7.9.7.1.4)

comment (3702)	wall%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	wall%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	wall%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	wall%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	wall%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	wall%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	wall%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	wall%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	wall%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	wall%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	wall%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	wall%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	wall%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	wall%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	wall%datainfo%putinfo%rights (string) (7.9.7.1.4)
wall0d (3618)	wall%wall0d (wall_wall0d) (7.9.7.1.515)
pumping_speed (4062)	wall%wall0d%pumping_speed (vecflt_type) (7.9.7.1.18)
gas_puff (4062)	wall%wall0d%gas_puff (vecflt_type) (7.9.7.1.18)
wall_inventory (4062)	wall%wall0d%wall_inventory (vecflt_type) (7.9.7.1.18)
recycling_coefficient (4062)	wall%wall0d%recycling_coefficient (vecflt_type) (7.9.7.1.18)
wall_temperature (4062)	wall%wall0d%wall_temperature (float) (7.9.7.1.2)
power_from_plasma (4062)	wall%wall0d%power_from_plasma (float) (7.9.7.1.2)
power_to_cooling (4062)	wall%wall0d%power_to_cooling (float) (7.9.7.1.2)
plasma (4062)	wall%wall0d%plasma (wall_wall0d_plasma) (7.9.7.1.516)
species_index (4063)	wall%wall0d%plasma%species_index (matint_type) (7.9.7.1.16)
flux (4063)	wall%wall0d%plasma%flux (vecflt_type) (7.9.7.1.18)
energy (4063)	wall%wall0d%plasma%energy (vecflt_type) (7.9.7.1.18)
wall2d_mhd (3618)	wall%wall2d_mhd (wall2d_mhd) (7.9.7.1.503)
res_wall (4050)	wall%wall2d_mhd%res_wall(:) (mhd_res_wall2d) (7.9.7.1.287)
walltype (3834)	wall%wall2d_mhd%res_wall(:)%walltype (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d_mhd%res_wall(:)%walltype%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d_mhd%res_wall(:)%walltype%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d_mhd%res_wall(:)%walltype%description (string) (7.9.7.1.4)
delta (3834)	wall%wall2d_mhd%res_wall(:)%delta (float) (7.9.7.1.2)
eta (3834)	wall%wall2d_mhd%res_wall(:)%eta (float) (7.9.7.1.2)
npoloidal (3834)	wall%wall2d_mhd%res_wall(:)%npoloidal (integer) (7.9.7.1.3)
position (3834)	wall%wall2d_mhd%res_wall(:)%position (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d_mhd%res_wall(:)%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d_mhd%res_wall(:)%position%z (vecflt_type) (7.9.7.1.18)
holes (3834)	wall%wall2d_mhd%res_wall(:)%holes (holes) (7.9.7.1.255)
n_holes (3802)	wall%wall2d_mhd%res_wall(:)%holes%n_holes (integer) (7.9.7.1.3)
coordinates (3802)	wall%wall2d_mhd%res_wall(:)%holes%coordinates (coordinates) (7.9.7.1.123)
theta (3670)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%theta (vecflt_type) (7.9.7.1.18)
phi (3670)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%phi (vecflt_type) (7.9.7.1.18)
width (3802)	wall%wall2d_mhd%res_wall(:)%holes%width (width) (7.9.7.1.528)
dtheta (4075)	wall%wall2d_mhd%res_wall(:)%holes%width%dtheta (vecflt_type) (7.9.7.1.18)
phi (4075)	wall%wall2d_mhd%res_wall(:)%holes%width%phi (vecflt_type) (7.9.7.1.18)
eta (3802)	wall%wall2d_mhd%res_wall(:)%holes%eta (vecflt_type) (7.9.7.1.18)
ideal_wall (4050)	wall%wall2d_mhd%ideal_wall (mhd_ideal_wall2d) (7.9.7.1.284)
walltype (3831)	wall%wall2d_mhd%ideal_wall%walltype (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d_mhd%ideal_wall%walltype%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d_mhd%ideal_wall%walltype%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d_mhd%ideal_wall%walltype%description (string) (7.9.7.1.4)
position (3831)	wall%wall2d_mhd%ideal_wall%position (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d_mhd%ideal_wall%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d_mhd%ideal_wall%position%z (vecflt_type) (7.9.7.1.18)
wall2d (3618)	wall%wall2d(:) (wall2d) (7.9.7.1.502)
wall_id (4049)	wall%wall2d(:)%wall_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d(:)%wall_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d(:)%wall_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d(:)%wall_id%description (string) (7.9.7.1.4)

limiter (4049)	wall%wall2d(:)%limiter (wall_limiter) (7.9.7.1.507)
limiter_id (4054)	wall%wall2d(:)%limiter%limiter_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d(:)%limiter%limiter_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d(:)%limiter%limiter_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d(:)%limiter%limiter_id%description (string) (7.9.7.1.4)
limiter_unit (4054)	wall%wall2d(:)%limiter%limiter_unit(:) (limiter_unit) (7.9.7.1.273)
name (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%name (string) (7.9.7.1.4)
closed (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%closed (string) (7.9.7.1.4)
position (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%position (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d(:)%limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d(:)%limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.7.1.18)
eta (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%eta (float) (7.9.7.1.2)
delta (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%delta (float) (7.9.7.1.2)
permeability (3820)	wall%wall2d(:)%limiter%limiter_unit(:)%permeability (float) (7.9.7.1.2)
vessel (4049)	wall%wall2d(:)%vessel (wall_vessel) (7.9.7.1.512)
vessel_id (4059)	wall%wall2d(:)%vessel%vessel_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d(:)%vessel%vessel_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d(:)%vessel%vessel_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d(:)%vessel%vessel_id%description (string) (7.9.7.1.4)
vessel_unit (4059)	wall%wall2d(:)%vessel%vessel_unit(:) (wall_vessel_unit) (7.9.7.1.514)
annular (4061)	wall%wall2d(:)%vessel%vessel_unit(:)%annular (wall_vessel_annular) (7.9.7.1.513)
name (4060)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%name (string) (7.9.7.1.4)
inside (4060)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%z (vecflt_type) (7.9.7.1.18)
outside (4060)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%z (vecflt_type) (7.9.7.1.18)
eta (4060)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%eta (float) (7.9.7.1.2)
permeability (4060)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%permeability (float) (7.9.7.1.2)
blocks (4061)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks (wall_blocks) (7.9.7.1.505)
blocks_unit (4052)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:) (wall_blocks_unit) (7.9.7.1.506)
name (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%name (string) (7.9.7.1.4)
position (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position (rz1D) (7.9.7.1.380)
r (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%r (vecflt_type) (7.9.7.1.18)
z (3927)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%z (vecflt_type) (7.9.7.1.18)
eta (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%eta (float) (7.9.7.1.2)
permeability (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%permeability (float) (7.9.7.1.2)
j_phi (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%j_phi (float) (7.9.7.1.2)
resistance (4053)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%resistance (float) (7.9.7.1.2)
radial_build (4061)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build (wall_wall2d_vessel_radial_build) (7.9.7.1.517)
r1_inb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_inb (float) (7.9.7.1.2)
r2_inb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_inb (float) (7.9.7.1.2)
r1_outb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_outb (float) (7.9.7.1.2)
r2_outb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_outb (float) (7.9.7.1.2)
raddim (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%raddim (float) (7.9.7.1.2)
nmat (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%nmat (float) (7.9.7.1.2)
composition (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%composition (vecflt_type) (7.9.7.1.18)
pow_dens_inb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_inb (float) (7.9.7.1.2)
pow_dens_outb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_outb (float) (7.9.7.1.2)
fn_flux_inb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_inb (float) (7.9.7.1.2)
fn_flux_outb (4064)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_outb (float) (7.9.7.1.2)
plasma (4049)	wall%wall2d(:)%plasma(:) (plasmaComplexType) (7.9.7.1.352)
species (3899)	wall%wall2d(:)%plasma(:)%species (vecint_type) (7.9.7.1.19)
flux (3899)	wall%wall2d(:)%plasma(:)%flux (matflt_type) (7.9.7.1.15)
b (3899)	wall%wall2d(:)%plasma(:)%b (matflt_type) (7.9.7.1.15)
energy (3899)	wall%wall2d(:)%plasma(:)%energy (matflt_type) (7.9.7.1.15)
wall_state (4049)	wall%wall2d(:)%wall_state(:) (wall_unitsComplexType) (7.9.7.1.510)
wall_type (4057)	wall%wall2d(:)%wall_state(:)%wall_type (integer) (7.9.7.1.3)

n_depo_layer (4057)	wall%wall2d(:)%wall_state(:)%n_depo_layer (integer) (7.9.7.1.3)
layers (4057)	wall%wall2d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.7.1.511)
elements (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.7.1.19)
gases (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.7.1.19)
compounds (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.7.1.19)
density (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.7.1.15)
dx (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.7.1.15)
thickness (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.7.1.18)
roughness (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.7.1.7)
porosity (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.7.1.7)
dpa (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.7.1.15)
temperature (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.7.1.15)
element_frac (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.7.1.7)
chem_comp (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.7.1.7)
bulk_D (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.7.1.9)
surface_D (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.7.1.9)
bulk_solute (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.7.1.9)
surf_solute (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.7.1.9)
pore_content (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.7.1.7)
trap_type (4058)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.7.1.486)
trap_id (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.7.1.4)
compound (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.7.1.3)
gas_species (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.7.1.3)
energy (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.7.1.2)
fill_factor (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.7.1.15)
density (4033)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.7.1.15)
eta (4057)	wall%wall2d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall2d(:)%wall_state(:)%eta%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall2d(:)%wall_state(:)%eta%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall2d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall2d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall2d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.7.1.7)
permeability (4057)	wall%wall2d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall2d(:)%wall_state(:)%permeability%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall2d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall2d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall2d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall2d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.7.1.7)
j (4057)	wall%wall2d(:)%wall_state(:)%j (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	wall%wall2d(:)%wall_state(:)%j%griduid (integer) (7.9.7.1.3)
label (3661)	wall%wall2d(:)%wall_state(:)%j%label (string) (7.9.7.1.4)
comp (3661)	wall%wall2d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall2d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall2d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall2d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall2d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall2d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	wall%wall2d(:)%wall_state(:)%j%align (vecint_type) (7.9.7.1.19)
alignid (3661)	wall%wall2d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	wall%wall2d(:)%wall_state(:)%j%basis (integer) (7.9.7.1.3)
wall3d (3618)	wall%wall3d(:) (wall3d) (7.9.7.1.504)
wall_id (4051)	wall%wall3d(:)%wall_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall3d(:)%wall_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall3d(:)%wall_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall3d(:)%wall_id%description (string) (7.9.7.1.4)
grid (4051)	wall%wall3d(:)%grid (complexgrid) (7.9.7.1.103)
uid (3650)	wall%wall3d(:)%grid%uid (integer) (7.9.7.1.3)
id (3650)	wall%wall3d(:)%grid%id (string) (7.9.7.1.4)

spaces (3650)	wall%wall3d(:)%grid%spaces(:) (complexgrid_space) (7.9.7.1.112)
geotype (3659)	wall%wall3d(:)%grid%spaces(:)%geotype (vecint_type) (7.9.7.1.19)
geotypeid (3659)	wall%wall3d(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.7.1.20)
coordtype (3659)	wall%wall3d(:)%grid%spaces(:)%coordtype (matint_type) (7.9.7.1.16)
objects (3659)	wall%wall3d(:)%grid%spaces(:)%objects(:) (objects) (7.9.7.1.321)
boundary (3868)	wall%wall3d(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.7.1.16)
neighbour (3868)	wall%wall3d(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.7.1.8)
geo (3868)	wall%wall3d(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.7.1.9)
measure (3868)	wall%wall3d(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.7.1.15)
xpoints (3659)	wall%wall3d(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.7.1.19)
subgrids (3650)	wall%wall3d(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.7.1.113)
id (3660)	wall%wall3d(:)%grid%subgrids(:)%id (string) (7.9.7.1.4)
list (3660)	wall%wall3d(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.7.1.107)
cls (3654)	wall%wall3d(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.7.1.19)
indset (3654)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.7.1.105)
range (3652)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.7.1.19)
ind (3652)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.7.1.19)
ind (3654)	wall%wall3d(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.7.1.16)
metric (3650)	wall%wall3d(:)%grid%metric (complexgrid_metric) (7.9.7.1.106)
measure (3653)	wall%wall3d(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
g11 (3653)	wall%wall3d(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g11(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g11(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.7.1.7)
g12 (3653)	wall%wall3d(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g12(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g12(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.7.1.7)
g13 (3653)	wall%wall3d(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g13(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g13(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.7.1.7)
g22 (3653)	wall%wall3d(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g22(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g22(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.7.1.7)
g23 (3653)	wall%wall3d(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g23(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g23(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.7.1.7)
g33 (3653)	wall%wall3d(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%g33(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%g33(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.7.1.7)

jacobian (3653)	wall%wall3d(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.7.1.7)
geo (3650)	wall%wall3d(:)%grid%geo(:) (complexgrid_geo_global) (7.9.7.1.104)
geotype (3651)	wall%wall3d(:)%grid%geo(:)%geotype (integer) (7.9.7.1.3)
geotypeid (3651)	wall%wall3d(:)%grid%geo(:)%geotypeid (string) (7.9.7.1.4)
coordtype (3651)	wall%wall3d(:)%grid%geo(:)%coordtype (vecint_type) (7.9.7.1.19)
geo_matrix (3651)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.7.1.7)
measure (3651)	wall%wall3d(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
bases (3650)	wall%wall3d(:)%grid%bases(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	wall%wall3d(:)%grid%bases(:)%griduid (integer) (7.9.7.1.3)
label (3661)	wall%wall3d(:)%grid%bases(:)%label (string) (7.9.7.1.4)
comp (3661)	wall%wall3d(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	wall%wall3d(:)%grid%bases(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	wall%wall3d(:)%grid%bases(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	wall%wall3d(:)%grid%bases(:)%basis (integer) (7.9.7.1.3)
plasma (4051)	wall%wall3d(:)%plasma(:) (plasmaComplexType) (7.9.7.1.352)
species (3899)	wall%wall3d(:)%plasma(:)%species (vecint_type) (7.9.7.1.19)
flux (3899)	wall%wall3d(:)%plasma(:)%flux (matflt_type) (7.9.7.1.15)
b (3899)	wall%wall3d(:)%plasma(:)%b (matflt_type) (7.9.7.1.15)
energy (3899)	wall%wall3d(:)%plasma(:)%energy (matflt_type) (7.9.7.1.15)
wall_state (4051)	wall%wall3d(:)%wall_state(:) (wall_unitsComplexType) (7.9.7.1.510)
wall_type (4057)	wall%wall3d(:)%wall_state(:)%wall_type (integer) (7.9.7.1.3)
n_depo_layer (4057)	wall%wall3d(:)%wall_state(:)%n_depo_layer (integer) (7.9.7.1.3)
layers (4057)	wall%wall3d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.7.1.511)
elements (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.7.1.19)
gases (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.7.1.19)
compounds (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.7.1.19)
density (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.7.1.15)
dx (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.7.1.15)
thickness (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.7.1.18)
roughness (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.7.1.7)
porosity (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.7.1.7)
dpa (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.7.1.15)
temperature (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.7.1.15)
element_frac (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.7.1.7)
chem_comp (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.7.1.7)
bulk_D (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.7.1.9)
surface_D (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.7.1.9)
bulk_solute (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.7.1.9)
surf_solute (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.7.1.9)
pore_content (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.7.1.7)
trap_type (4058)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.7.1.486)

trap_id (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.7.1.256)
id (3803)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.7.1.4)
flag (3803)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.7.1.3)
description (3803)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.7.1.4)
compound (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.7.1.3)
gas_species (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.7.1.3)
energy (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.7.1.2)
fill_factor (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.7.1.15)
density (4033)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.7.1.15)
eta (4057)	wall%wall3d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%wall_state(:)%eta%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%wall_state(:)%eta%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.7.1.7)
permeability (4057)	wall%wall3d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%wall_state(:)%permeability%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.7.1.7)
j (4057)	wall%wall3d(:)%wall_state(:)%j (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	wall%wall3d(:)%wall_state(:)%j%griduid (integer) (7.9.7.1.3)
label (3661)	wall%wall3d(:)%wall_state(:)%j%label (string) (7.9.7.1.4)
comp (3661)	wall%wall3d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	wall%wall3d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	wall%wall3d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	wall%wall3d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	wall%wall3d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	wall%wall3d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	wall%wall3d(:)%wall_state(:)%j%align (vecint_type) (7.9.7.1.19)
alignid (3661)	wall%wall3d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	wall%wall3d(:)%wall_state(:)%j%basis (integer) (7.9.7.1.3)
basis_index (4051)	wall%wall3d(:)%basis_index (integer) (7.9.7.1.3)
wall_types (3618)	wall%wall_types(:) (wall_types) (7.9.7.1.508)
label (4055)	wall%wall_types(:)%label (string) (7.9.7.1.4)
layers (4055)	wall%wall_types(:)%layers(:) (wall_types_layers) (7.9.7.1.509)
thickness (4056)	wall%wall_types(:)%layers(:)%thickness (float) (7.9.7.1.2)
chem_comp (4056)	wall%wall_types(:)%layers(:)%chem_comp (vecflt_type) (7.9.7.1.18)
compounds (3618)	wall%compounds(:) (compound_desc) (7.9.7.1.121)
label (3668)	wall%compounds(:)%label (string) (7.9.7.1.4)
stochiometry (3668)	wall%compounds(:)%stochiometry (vecflt_type) (7.9.7.1.18)
density (3668)	wall%compounds(:)%density (float) (7.9.7.1.2)
heat_cap (3668)	wall%compounds(:)%heat_cap (float) (7.9.7.1.2)
heat_cond (3668)	wall%compounds(:)%heat_cond (vecflt_type) (7.9.7.1.18)
surf_recrate (3668)	wall%compounds(:)%surf_recrate (matflt_type) (7.9.7.1.15)
elements (3618)	wall%elements(:) (element_desc) (7.9.7.1.207)
nucindex (3754)	wall%elements(:)%nucindex (integer) (7.9.7.1.3)
label (3754)	wall%elements(:)%label (string) (7.9.7.1.4)
zn (3754)	wall%elements(:)%zn (float) (7.9.7.1.2)
amn (3754)	wall%elements(:)%amn (float) (7.9.7.1.2)
compositions (3618)	wall%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	wall%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	wall%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	wall%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	wall%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	wall%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	wall%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	wall%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	wall%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	wall%compositions%ions(:)%label (string) (7.9.7.1.4)

impurities (3667)	wall%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	wall%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	wall%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	wall%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	wall%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	wall%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	wall%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	wall%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	wall%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	wall%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	wall%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	wall%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	wall%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	wall%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	wall%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	wall%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	wall%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	wall%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	wall%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	wall%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	wall%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	wall%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	wall%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	wall%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	wall%compositions%signature%description (string) (7.9.7.1.4)
codeparam (3618)	wall%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	wall%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	wall%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	wall%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	wall%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	wall%codeparam%output_flag (integer) (7.9.7.1.3)
time (3618)	wall%time (float) (7.9.7.1.2)

7.9.7.2.50 waves

datainfo (3619)	waves%datainfo (datainfo) (7.9.7.1.155)
dataprovider (3702)	waves%datainfo%dataprovider (string) (7.9.7.1.4)
putdate (3702)	waves%datainfo%putdate (string) (7.9.7.1.4)
source (3702)	waves%datainfo%source (string) (7.9.7.1.4)
comment (3702)	waves%datainfo%comment (string) (7.9.7.1.4)
cocos (3702)	waves%datainfo%cocos (integer) (7.9.7.1.3)
id (3702)	waves%datainfo%id (integer) (7.9.7.1.3)
isref (3702)	waves%datainfo%isref (integer) (7.9.7.1.3)
whatref (3702)	waves%datainfo%whatref (whatref) (7.9.7.1.527)
user (4074)	waves%datainfo%whatref%user (string) (7.9.7.1.4)
machine (4074)	waves%datainfo%whatref%machine (string) (7.9.7.1.4)
shot (4074)	waves%datainfo%whatref%shot (integer) (7.9.7.1.3)
run (4074)	waves%datainfo%whatref%run (integer) (7.9.7.1.3)
occurrence (4074)	waves%datainfo%whatref%occurrence (integer) (7.9.7.1.3)
putinfo (3702)	waves%datainfo%putinfo (putinfo) (7.9.7.1.363)
putmethod (3910)	waves%datainfo%putinfo%putmethod (string) (7.9.7.1.4)
putaccess (3910)	waves%datainfo%putinfo%putaccess (string) (7.9.7.1.4)
putlocation (3910)	waves%datainfo%putinfo%putlocation (string) (7.9.7.1.4)
rights (3910)	waves%datainfo%putinfo%rights (string) (7.9.7.1.4)
coherentwave (3619)	waves%coherentwave(:) (coherentwave) (7.9.7.1.100)
wave_id (3647)	waves%coherentwave(:)%wave_id (enum_instance) (7.9.7.1.209)
type (3756)	waves%coherentwave(:)%wave_id%type (identifier) (7.9.7.1.256)
id (3803)	waves%coherentwave(:)%wave_id%type%id (string) (7.9.7.1.4)
flag (3803)	waves%coherentwave(:)%wave_id%type%flag (integer) (7.9.7.1.3)
description (3803)	waves%coherentwave(:)%wave_id%type%description (string) (7.9.7.1.4)

name (3756)	waves%coherentwave(:)%wave_id%name (string) (7.9.7.1.4)
index (3756)	waves%coherentwave(:)%wave_id%index (integer) (7.9.7.1.3)
composition (3647)	waves%coherentwave(:)%composition (composition) (7.9.7.1.116)
amn (3663)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.7.1.18)
zn (3663)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.7.1.18)
zion (3663)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.7.1.18)
imp_flag (3663)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.7.1.19)
label (3663)	waves%coherentwave(:)%composition%label (vecstring_type) (7.9.7.1.20)
compositions (3647)	waves%coherentwave(:)%compositions (compositions_type) (7.9.7.1.120)
nuclei (3667)	waves%coherentwave(:)%compositions%nuclei(:) (nuclei) (7.9.7.1.320)
zn (3867)	waves%coherentwave(:)%compositions%nuclei(:)%zn (float) (7.9.7.1.2)
amn (3867)	waves%coherentwave(:)%compositions%nuclei(:)%amn (float) (7.9.7.1.2)
label (3867)	waves%coherentwave(:)%compositions%nuclei(:)%label (string) (7.9.7.1.4)
ions (3667)	waves%coherentwave(:)%compositions%ions(:) (ions) (7.9.7.1.261)
nucindex (3808)	waves%coherentwave(:)%compositions%ions(:)%nucindex (integer) (7.9.7.1.3)
zion (3808)	waves%coherentwave(:)%compositions%ions(:)%zion (float) (7.9.7.1.2)
imp_flag (3808)	waves%coherentwave(:)%compositions%ions(:)%imp_flag (integer) (7.9.7.1.3)
label (3808)	waves%coherentwave(:)%compositions%ions(:)%label (string) (7.9.7.1.4)
impurities (3667)	waves%coherentwave(:)%compositions%impurities(:) (impurities) (7.9.7.1.258)
nucindex (3805)	waves%coherentwave(:)%compositions%impurities(:)%nucindex (integer) (7.9.7.1.3)
i_ion (3805)	waves%coherentwave(:)%compositions%impurities(:)%i_ion (integer) (7.9.7.1.3)
nzimp (3805)	waves%coherentwave(:)%compositions%impurities(:)%nzimp (integer) (7.9.7.1.3)
zmin (3805)	waves%coherentwave(:)%compositions%impurities(:)%zmin (vecflt_type) (7.9.7.1.18)
zmax (3805)	waves%coherentwave(:)%compositions%impurities(:)%zmax (vecflt_type) (7.9.7.1.18)
label (3805)	waves%coherentwave(:)%compositions%impurities(:)%label (vecstring_type) (7.9.7.1.20)
neutralscomp (3667)	waves%coherentwave(:)%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.7.1.119)
neutcomp (3666)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.7.1.118)
nucindex (3665)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.7.1.3)
multiplicity (3665)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.7.1.3)
type (3666)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:) (identifier) (7.9.7.1.256)
id (3803)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%id (string) (7.9.7.1.4)
flag (3803)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.7.1.3)
description (3803)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%description (string) (7.9.7.1.4)
label (3666)	waves%coherentwave(:)%compositions%neutralscomp(:)%label (string) (7.9.7.1.4)
edgespecies (3667)	waves%coherentwave(:)%compositions%edgespecies(:) (edgespecies) (7.9.7.1.206)
nucindex (3753)	waves%coherentwave(:)%compositions%edgespecies(:)%nucindex (integer) (7.9.7.1.3)
zmin (3753)	waves%coherentwave(:)%compositions%edgespecies(:)%zmin (float) (7.9.7.1.2)
zmax (3753)	waves%coherentwave(:)%compositions%edgespecies(:)%zmax (float) (7.9.7.1.2)
label (3753)	waves%coherentwave(:)%compositions%edgespecies(:)%label (string) (7.9.7.1.4)
signature (3667)	waves%coherentwave(:)%compositions%signature (identifier) (7.9.7.1.256)
id (3803)	waves%coherentwave(:)%compositions%signature%id (string) (7.9.7.1.4)
flag (3803)	waves%coherentwave(:)%compositions%signature%flag (integer) (7.9.7.1.3)
description (3803)	waves%coherentwave(:)%compositions%signature%description (string) (7.9.7.1.4)
global_param (3647)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.7.1.519)
name (4066)	waves%coherentwave(:)%global_param%name (string) (7.9.7.1.4)
type (4066)	waves%coherentwave(:)%global_param%type (string) (7.9.7.1.4)
f_assumption (4066)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.7.1.19)
code_type (4066)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.7.1.3)
frequency (4066)	waves%coherentwave(:)%global_param%frequency (float) (7.9.7.1.2)
ntor (4066)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.7.1.19)
power_tot (4066)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.7.1.2)
p_frac_ntor (4066)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.7.1.18)
pow_e (4066)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.7.1.2)
pow_i (4066)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.7.1.18)
pow_z (4066)	waves%coherentwave(:)%global_param%pow_z (matflt_type) (7.9.7.1.15)
pow_fe (4066)	waves%coherentwave(:)%global_param%pow_fe (float) (7.9.7.1.2)
pow_fi (4066)	waves%coherentwave(:)%global_param%pow_fi (vecflt_type) (7.9.7.1.18)
pow_fz (4066)	waves%coherentwave(:)%global_param%pow_fz (matflt_type) (7.9.7.1.15)

pow_ntor_e (4066)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.7.1.18)
pow_ntor_i (4066)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.7.1.15)
pow_ntor_z (4066)	waves%coherentwave(:)%global_param%pow_ntor_z (array3dflt_type) (7.9.7.1.7)
pow_ntor_fe (4066)	waves%coherentwave(:)%global_param%pow_ntor_fe (vecflt_type) (7.9.7.1.18)
pow_ntor_fi (4066)	waves%coherentwave(:)%global_param%pow_ntor_fi (matflt_type) (7.9.7.1.15)
pow_ntor_fz (4066)	waves%coherentwave(:)%global_param%pow_ntor_fz (array3dflt_type) (7.9.7.1.7)
cur_tor (4066)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.7.1.2)
cur_tor_ntor (4066)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.7.1.18)
mag_axis (4066)	waves%coherentwave(:)%global_param%mag_axis (rz0D) (7.9.7.1.379)
r (3926)	waves%coherentwave(:)%global_param%mag_axis%r (float) (7.9.7.1.2)
z (3926)	waves%coherentwave(:)%global_param%mag_axis%z (float) (7.9.7.1.2)
toroid_field (4066)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.7.1.80)
r0 (3627)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.7.1.2)
b0 (3627)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.7.1.2)
grid_1d (3647)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.7.1.520)
rho_tor (4067)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.7.1.18)
rho_tor_norm (4067)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.7.1.18)
psi (4067)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.7.1.18)
volume (4067)	waves%coherentwave(:)%grid_1d%volume (vecflt_type) (7.9.7.1.18)
area (4067)	waves%coherentwave(:)%grid_1d%area (vecflt_type) (7.9.7.1.18)
grid_2d (3647)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.7.1.521)
grid_type (4068)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.7.1.3)
rho_tor_norm (4068)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.7.1.15)
rho_tor (4068)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.7.1.15)
psi (4068)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.7.1.15)
theta (4068)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.7.1.15)
r (4068)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.7.1.15)
z (4068)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.7.1.15)
theta_info (4068)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.7.1.478)
angl_type (4025)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.7.1.3)
th2th_pol (4025)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.7.1.15)
profiles_1d (3647)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.7.1.522)
powd_tot (4069)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.7.1.18)
powd_e (4069)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.7.1.18)
powd_i (4069)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.7.1.15)
powd_z (4069)	waves%coherentwave(:)%profiles_1d%powd_z (array3dflt_type) (7.9.7.1.7)
powd_fe (4069)	waves%coherentwave(:)%profiles_1d%powd_fe (vecflt_type) (7.9.7.1.18)
powd_fi (4069)	waves%coherentwave(:)%profiles_1d%powd_fi (matflt_type) (7.9.7.1.15)
powd_fz (4069)	waves%coherentwave(:)%profiles_1d%powd_fz (array3dflt_type) (7.9.7.1.7)
powd_ntor (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.7.1.15)
powd_ntor_e (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.7.1.15)
powd_ntor_i (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.7.1.7)
powd_ntor_z (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_z (array4dflt_type) (7.9.7.1.9)
powd_ntor_fe (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_fe (matflt_type) (7.9.7.1.15)
powd_ntor_fi (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_fi (array3dflt_type) (7.9.7.1.7)
powd_ntor_fz (4069)	waves%coherentwave(:)%profiles_1d%powd_ntor_fz (array4dflt_type) (7.9.7.1.9)
curd_tor (4069)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.7.1.18)
curd_torntor (4069)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.7.1.15)
pow_tot (4069)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.7.1.18)
pow_e (4069)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.7.1.18)
pow_i (4069)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.7.1.15)
pow_z (4069)	waves%coherentwave(:)%profiles_1d%pow_z (array3dflt_type) (7.9.7.1.7)
pow_fe (4069)	waves%coherentwave(:)%profiles_1d%pow_fe (vecflt_type) (7.9.7.1.18)
pow_fi (4069)	waves%coherentwave(:)%profiles_1d%pow_fi (matflt_type) (7.9.7.1.15)
pow_fz (4069)	waves%coherentwave(:)%profiles_1d%pow_fz (array3dflt_type) (7.9.7.1.7)
pow_ntor (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor (matflt_type) (7.9.7.1.15)
pow_ntor_e (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.7.1.15)
pow_ntor_i (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.7.1.7)
pow_ntor_z (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_z (array3dflt_type) (7.9.7.1.7)
pow_ntor_fe (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_fe (matflt_type) (7.9.7.1.15)
pow_ntor_fi (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_fi (array3dflt_type) (7.9.7.1.7)

pow_ntor_fz (4069)	waves%coherentwave(:)%profiles_1d%pow_ntor_fz (array3dflt_type) (7.9.7.1.7)
curd_par (4069)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.7.1.18)
curd_parntor (4069)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.7.1.15)
cur_tor (4069)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.7.1.18)
cur_tor_ntor (4069)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.7.1.15)
e_plus_ave (4069)	waves%coherentwave(:)%profiles_1d%e_plus_ave (matflt_type) (7.9.7.1.15)
e_minus_ave (4069)	waves%coherentwave(:)%profiles_1d%e_minus_ave (matflt_type) (7.9.7.1.15)
e_para_ave (4069)	waves%coherentwave(:)%profiles_1d%e_para_ave (matflt_type) (7.9.7.1.15)
k_perp_ave (4069)	waves%coherentwave(:)%profiles_1d%k_perp_ave (matflt_type) (7.9.7.1.15)
profiles_2d (3647)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.7.1.523)
powd_tot (4070)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.7.1.15)
powd_e (4070)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.7.1.15)
powd_i (4070)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.7.1.7)
powd_z (4070)	waves%coherentwave(:)%profiles_2d%powd_z (array4dflt_type) (7.9.7.1.9)
powd_fe (4070)	waves%coherentwave(:)%profiles_2d%powd_fe (matflt_type) (7.9.7.1.15)
powd_fi (4070)	waves%coherentwave(:)%profiles_2d%powd_fi (array3dflt_type) (7.9.7.1.7)
powd_fz (4070)	waves%coherentwave(:)%profiles_2d%powd_fz (array4dflt_type) (7.9.7.1.9)
powd_ntor (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.7.1.7)
powd_ntor_e (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.7.1.7)
powd_ntor_i (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.7.1.9)
powd_ntor_z (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_z (array5dflt_type) (7.9.7.1.10)
powd_ntor_fe (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_fe (array3dflt_type) (7.9.7.1.7)
powd_ntor_fi (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_fi (array4dflt_type) (7.9.7.1.9)
powd_ntor_fz (4070)	waves%coherentwave(:)%profiles_2d%powd_ntor_fz (array5dflt_type) (7.9.7.1.10)
powd_iharm (4070)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.7.1.10)
beamtracing (3647)	waves%coherentwave(:)%beamtracing(:) (beamtracing) (7.9.7.1.87)
npoints (3634)	waves%coherentwave(:)%beamtracing(:)%npoints (integer) (7.9.7.1.3)
power (3634)	waves%coherentwave(:)%beamtracing(:)%power (float) (7.9.7.1.2)
dnpar (3634)	waves%coherentwave(:)%beamtracing(:)%dnpar (vecflt_type) (7.9.7.1.18)
length (3634)	waves%coherentwave(:)%beamtracing(:)%length (vecflt_type) (7.9.7.1.18)
position (3634)	waves%coherentwave(:)%beamtracing(:)%position (waves_rtposition) (7.9.7.1.524)
r (4071)	waves%coherentwave(:)%beamtracing(:)%position%r (vecflt_type) (7.9.7.1.18)
z (4071)	waves%coherentwave(:)%beamtracing(:)%position%z (vecflt_type) (7.9.7.1.18)
phi (4071)	waves%coherentwave(:)%beamtracing(:)%position%phi (vecflt_type) (7.9.7.1.18)
psi (4071)	waves%coherentwave(:)%beamtracing(:)%position%psi (vecflt_type) (7.9.7.1.18)
theta (4071)	waves%coherentwave(:)%beamtracing(:)%position%theta (vecflt_type) (7.9.7.1.18)
wavevector (3634)	waves%coherentwave(:)%beamtracing(:)%wavevector (waves_rtwavevector) (7.9.7.1.525)
kr (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%kr (vecflt_type) (7.9.7.1.18)
kz (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%kz (vecflt_type) (7.9.7.1.18)
kphi (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%kphi (vecflt_type) (7.9.7.1.18)
npar (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%npar (vecflt_type) (7.9.7.1.18)
nperp (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%nperp (vecflt_type) (7.9.7.1.18)
ntor (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%ntor (vecflt_type) (7.9.7.1.18)
var_ntor (4072)	waves%coherentwave(:)%beamtracing(:)%wavevector%var_ntor (integer) (7.9.7.1.3)
polarization (3634)	waves%coherentwave(:)%beamtracing(:)%polarization (polarization) (7.9.7.1.356)
epol_p_re (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_re (vecflt_type) (7.9.7.1.18)
epol_p_im (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_im (vecflt_type) (7.9.7.1.18)
epol_m_re (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_re (vecflt_type) (7.9.7.1.18)
epol_m_im (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_im (vecflt_type) (7.9.7.1.18)
epol_par_re (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_re (vecflt_type) (7.9.7.1.18)
epol_par_im (3903)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_im (vecflt_type) (7.9.7.1.18)
powerflow (3634)	waves%coherentwave(:)%beamtracing(:)%powerflow (powerflow) (7.9.7.1.359)
phi_perp (3906)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_perp (vecflt_type) (7.9.7.1.18)
phi_par (3906)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_par (vecflt_type) (7.9.7.1.18)
power_e (3906)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_e (vecflt_type) (7.9.7.1.18)
power_i (3906)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_i (matflt_type) (7.9.7.1.15)
fullwave (3647)	waves%coherentwave(:)%fullwave (fullwave) (7.9.7.1.230)
grid (3777)	waves%coherentwave(:)%fullwave%grid (complexgrid) (7.9.7.1.103)
uid (3650)	waves%coherentwave(:)%fullwave%grid%uid (integer) (7.9.7.1.3)
id (3650)	waves%coherentwave(:)%fullwave%grid%id (string) (7.9.7.1.4)
spaces (3650)	waves%coherentwave(:)%fullwave%grid%spaces(:) (complexgrid_space) (7.9.7.1.112)

geotype (3659)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotype (vecint_type) (7.9.7.1.19)
geotypeid (3659)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotypeid (vecstring_type) (7.9.7.1.20)
coordtype (3659)	waves%coherentwave(:)%fullwave%grid%spaces(:)%coordtype (matint_type) (7.9.7.1.16)
objects (3659)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:) (objects) (7.9.7.1.321)
boundary (3868)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.7.1.16)
neighbour (3868)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.7.1.8)
geo (3868)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.7.1.9)
measure (3868)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.7.1.15)
xpoints (3659)	waves%coherentwave(:)%fullwave%grid%spaces(:)%xpoints (vecint_type) (7.9.7.1.19)
subgrids (3650)	waves%coherentwave(:)%fullwave%grid%subgrids(:) (complexgrid_subgrid) (7.9.7.1.113)
id (3660)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%id (string) (7.9.7.1.4)
list (3660)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.7.1.107)
cls (3654)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.7.1.19)
indset (3654)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.7.1.105)
range (3652)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.7.1.19)
ind (3652)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.7.1.19)
ind (3654)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.7.1.16)
metric (3650)	waves%coherentwave(:)%fullwave%grid%metric (complexgrid_metric) (7.9.7.1.106)
measure (3653)	waves%coherentwave(:)%fullwave%grid%metric%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
g11 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g11(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.7.1.7)
g12 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g12(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.7.1.7)
g13 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g13(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.7.1.7)
g22 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g22(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.7.1.7)
g23 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g23(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%vector (matflt_type) (7.9.7.1.15)

matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.7.1.7)
g33 (3653)	waves%coherentwave(:)%fullwave%grid%metric%g33(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.7.1.7)
jacobian (3653)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.7.1.7)
geo (3650)	waves%coherentwave(:)%fullwave%grid%geo(:) (complexgrid_geo_global) (7.9.7.1.104)
geotype (3651)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotype (integer) (7.9.7.1.3)
geotypeid (3651)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotypeid (string) (7.9.7.1.4)
coordtype (3651)	waves%coherentwave(:)%fullwave%grid%geo(:)%coordtype (vecint_type) (7.9.7.1.19)
geo_matrix (3651)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.7.1.7)
measure (3651)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.7.1.7)
bases (3650)	waves%coherentwave(:)%fullwave%grid%bases(:) (complexgrid_vector) (7.9.7.1.114)
griduid (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%griduid (integer) (7.9.7.1.3)
label (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%label (string) (7.9.7.1.4)
comp (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.7.1.108)
griduid (3655)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%griduid (integer) (7.9.7.1.3)
subgrid (3655)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%subgrid (integer) (7.9.7.1.3)
scalar (3655)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.7.1.18)
vector (3655)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.7.1.15)
matrix (3655)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.7.1.7)
align (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%align (vecint_type) (7.9.7.1.19)
alignid (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%alignid (vecstring_type) (7.9.7.1.20)
basis (3661)	waves%coherentwave(:)%fullwave%grid%bases(:)%basis (integer) (7.9.7.1.3)
e_components (3777)	waves%coherentwave(:)%fullwave%e_components (e_components) (7.9.7.1.194)
e_plus (3741)	waves%coherentwave(:)%fullwave%e_components%e_plus (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%e_plus%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%e_plus%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix (array3dcplx_type) (7.9.7.1.6)
e_minus (3741)	waves%coherentwave(:)%fullwave%e_components%e_minus (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%e_minus%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%e_minus%subgrid (integer) (7.9.7.1.3)

scalar (3656)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix (array3dcplx_type) (7.9.7.1.6)
e_para (3741)	waves%coherentwave(:)%fullwave%e_components%e_para (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%e_para%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%e_para%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%e_para%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix (array3dcplx_type) (7.9.7.1.6)
e_norm (3741)	waves%coherentwave(:)%fullwave%e_components%e_norm (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%e_norm%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%e_norm%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix (array3dcplx_type) (7.9.7.1.6)
e_binorm (3741)	waves%coherentwave(:)%fullwave%e_components%e_binorm (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%e_binorm%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%e_binorm%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix (array3dcplx_type) (7.9.7.1.6)
b_norm (3741)	waves%coherentwave(:)%fullwave%e_components%b_norm (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%b_norm%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%b_norm%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix (array3dcplx_type) (7.9.7.1.6)
b_binorm (3741)	waves%coherentwave(:)%fullwave%e_components%b_binorm (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%b_binorm%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%b_binorm%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix (array3dcplx_type) (7.9.7.1.6)
b_para (3741)	waves%coherentwave(:)%fullwave%e_components%b_para (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%b_para%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%b_para%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar (veccplx_type) (7.9.7.1.17)
vector (3656)	waves%coherentwave(:)%fullwave%e_components%b_para%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix (array3dcplx_type) (7.9.7.1.6)
k_perp (3741)	waves%coherentwave(:)%fullwave%e_components%k_perp (complexgrid_scalar_cplx) (7.9.7.1.109)
griduid (3656)	waves%coherentwave(:)%fullwave%e_components%k_perp%griduid (integer) (7.9.7.1.3)
subgrid (3656)	waves%coherentwave(:)%fullwave%e_components%k_perp%subgrid (integer) (7.9.7.1.3)
scalar (3656)	waves%coherentwave(:)%fullwave%e_components%k_perp%scalar (veccplx_type) (7.9.7.1.17)

vector (3656)	waves%coherentwave(:)%fullwave%e_components%k_perp%vector (matcplx_type) (7.9.7.1.14)
matrix (3656)	waves%coherentwave(:)%fullwave%e_components%k_perp%matrix (array3dcplx_type) (7.9.7.1.6)
pol_decomp (3777)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.7.1.354)
mpol (3901)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.7.1.19)
e_plus (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.7.1.7)
e_plus_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.7.1.7)
e_minus (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.7.1.7)
e_minus_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.7.1.7)
e_norm (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.7.1.7)
e_norm_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.7.1.7)
e_binorm (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.7.1.7)
e_binorm_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.7.1.7)
e_para (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.7.1.7)
e_para_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.7.1.7)
b_norm (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.7.1.7)
b_norm_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.7.1.7)
b_binorm (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.7.1.7)
b_binorm_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array3dflt_type) (7.9.7.1.7)
b_para (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.7.1.7)
b_para_ph (3901)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.7.1.7)
k_perp (3901)	waves%coherentwave(:)%fullwave%pol_decomp%k_perp (array3dflt_type) (7.9.7.1.7)
local (3777)	waves%coherentwave(:)%fullwave%local (local) (7.9.7.1.278)
e_plus (3825)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.7.1.7)
e_plus_ph (3825)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.7.1.7)
e_minus (3825)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.7.1.7)
e_minus_ph (3825)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.7.1.7)
e_norm (3825)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.7.1.8)
enorm_ph (3825)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.7.1.7)
e_binorm (3825)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.7.1.7)
e_binorm_ph (3825)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.7.1.7)
e_para (3825)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.7.1.7)
e_para_ph (3825)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.7.1.7)
b_norm (3825)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.7.1.7)
b_norm_ph (3825)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.7.1.7)
b_binorm (3825)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.7.1.7)
b_binorm_ph (3825)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.7.1.7)
b_para (3825)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.7.1.7)
b_para_ph (3825)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.7.1.7)
k_perp (3825)	waves%coherentwave(:)%fullwave%local%k_perp (array3dflt_type) (7.9.7.1.7)
codeparam (3647)	waves%coherentwave(:)%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	waves%coherentwave(:)%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.7.1.3)
codeparam (3619)	waves%codeparam (codeparam) (7.9.7.1.98)
codename (3645)	waves%codeparam%codename (string) (7.9.7.1.4)
codeversion (3645)	waves%codeparam%codeversion (string) (7.9.7.1.4)
parameters (3645)	waves%codeparam%parameters (string) (7.9.7.1.4)
output_diag (3645)	waves%codeparam%output_diag (string) (7.9.7.1.4)
output_flag (3645)	waves%codeparam%output_flag (integer) (7.9.7.1.3)
time (3619)	waves%time (float) (7.9.7.1.2)

cpoinstances [568]

[568] https://www.efda-itm.eu/ITM/html/cpoinstances__4.10b.10.html

7.9.8 4.10b.11

7.9.8.1 ITM Types

Generated from the ITM data structure schemas. Time-dependent values are shown in green. Anonymous structure (complex) types in the schemas are given parent element names; a prefix or suffix (eg type_, _type, _t) can be added if required.

7.9.8.1.1 Primitive Types

Clear definitions required.

7.9.8.1.2 float

7.9.8.1.3 integer

7.9.8.1.4 string

7.9.8.1.5 Array Types

Clear definitions required.

7.9.8.1.6 array3dcplx_type

Example: Complex numbers (3D)

7.9.8.1.7 array3dflt_type

Example: [[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]

7.9.8.1.8 array3dint_type

Example: [[[1,2,3],[5,6,7]],[[1,2,3],[5,6,7]]]

7.9.8.1.9 array4dflt_type

Example: [[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]]

7.9.8.1.10 array5dflt_type

Example: [[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2.

7.9.8.1.11 array6dflt_type

Example: [[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,2

7.9.8.1.12 array7dflt_type

Example: [[[[[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]],[[[1.0,2.0,3.0],[5.0,6.0,7.0]],[[1.0,2.0,3.0],[5.0,6.0,7.0]]]],[[[[1.0,

7.9.8.1.13 cplx_type

Example: Complex number (scalar)

7.9.8.1.14 matcplx_type

Example: Complex numbers (matrix)

7.9.8.1.15 matflt_type

Example: [[1.0,2.0,3.0],[5.0,6.0,7.0]]

7.9.8.1.16 matint_type

Example: [[1,2,3],[4,5,6]]

7.9.8.1.17 veccplx_type

Example: Complex numbers (vector)

7.9.8.1.18 vecflt_type

Example: [1.0,-3e5,-4.0e-3]

7.9.8.1.19 vecint_type

Example: [1,2,3]

7.9.8.1.20 vecstring_type

Example: ["aaa","bb","cccc"]

7.9.8.1.21 Structure Types

7.9.8.1.22 CPO Structures

7.9.8.1.23 amns

Description of AMNS processes for one species.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
version	string (7.9.8.1.4)	Version of the data.
source	string (7.9.8.1.4)	Source of the data.
zn	integer (7.9.8.1.3)	Nuclear charge [units of elementary charge];
amn	float (7.9.8.1.2)	Mass of atom [amu]
process(:)	amns_processType (7.9.8.1.76)	Identifiers for processes; Vector(nprocs)
tables(:)	tables (7.9.8.1.449)	Rate tables for processes. Vector(nprocs)
tables_coord(:)	tables_coord (7.9.8.1.450)	Array of possible coordinate systems for tables. Vector(ncoordbases)
version_ind(:)	version_ind (7.9.8.1.508)	Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.24 antennas

Antenna systems for heating and current drive in the electron cyclotron (EC), ion cylcotron (IC) and lower hybrid (LH) frequencies. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
antenna_ec(:)	antenna_ec (7.9.8.1.77)	Vector of Electron Cyclotron antennas. Time-dependent
antenna_ic(:)	antenna_ic (7.9.8.1.78)	Vector of Ion Cyclotron antennas. Time-dependent
antenna_lh(:)	antenna_lh (7.9.8.1.79)	Vector of Lower Hybrid antennas. Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.25 bb_shield

Breeding blanket and relevant shield. CPO. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item

member	type	description
type	string (7.9.8.1.4)	Type of breeding blanket (HCLL, DCLL, HCPB, ...). String
limits	limits (7.9.8.1.281)	Limits
li6_enrich	float (7.9.8.1.2)	Lithium 6 enrichement (at%).
geom	geom (7.9.8.1.254)	Geometry between components
neut_results	neut_results (7.9.8.1.317)	Neutronic results
shield	shield (7.9.8.1.426)	Shield
bb	bb (7.9.8.1.83)	Breeding blanket
hcll	hcll (7.9.8.1.259)	Data specific to HCLL blanket concept
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.26 bolometer

Bolometer diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	bolometer_setup (7.9.8.1.92)	diagnostic setup information
measure	bolometer_measure (7.9.8.1.90)	Measured values
process	bolometer_processed (7.9.8.1.91)	Processed quantities
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.27 bremsstrahl

Bremsstrahlung diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	bremsstrahl_setup (7.9.8.1.100)	diagnostic setup information
measure	bremsstrahl_measure (7.9.8.1.99)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.28 compositionc

Species description (ions, impurities, neutrals).

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.29 coredelta

Generic instant change of the radial core profiles due to pellet, MHD, ... Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coredelta_values (7.9.8.1.132)	Description of the delta term for the various origins. Array of structure (ndelta). Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters

member	type	description
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.30 corefast

Flux surface averaged fluid measures and transport coefficients of fast particle populations. Here the concept of a fast particle population refer to the difference between the total population and the thermal population. This separation of populations may in practise be achieved differently depending on the physics model. A description of how the separation is achieved should therefore be provided in corefast/values/filter/. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	corefast_values (7.9.8.1.134)	Description of the fast particle terms of various origins. Array of structure (nfast). Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.31 coreimpur

Impurity species (i.e. ion species with multiple charge states), radial core profiles. For heavy impurities, some ionisation states can be grouped into ”bundles”. Can be the result of an impurity transport code or experimental measurements. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)
flag	vecint_type (7.9.8.1.19)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nimp)
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
atomic_data	vecstring_type (7.9.8.1.20)	Reference for the atomic data used for each impurity. Array of strings (nimp)
impurity(:)	impurity_type (7.9.8.1.266)	Array(nimp). Time-dependent
diagnostic	coreimpurediag_type (7.9.8.1.146)	NO DOCS
diagnosticsum	coreimpurediag_sum (7.9.8.1.144)	NO DOCS
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.

7.9.8.1.32 coreneutrals

Core plasma neutrals description. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
neutcompo	composition_neutrals (7.9.8.1.124)	Description of neutrals species. OBSOLESCENT
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
profiles(:)	neutral_complex_type (7.9.8.1.318)	Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent
ioncoeff(:)	coefficients_neutrals (7.9.8.1.106)	Recycling and sputtering coefficients for each ion in composition. Array(nion). Time-dependent
impcoeff(:)	impcoeff (7.9.8.1.264)	Recycling and sputtering coefficients for each impurity ion in desc_impur. Array(nimp). Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.33 coreprof

Core plasma 1D profiles as a function of the toroidal flux coordinate, obtained by solving the core transport equations (can be also fitted profiles from experimental data). The codeparam element here describes the parameters of the transport equation solver and/or those of the fitting program. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last radial grid point, which is quasi at the Last Closed Flux Surface); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
drho_dt	vecflt_type (7.9.8.1.18)	Time derivative of rho_tor [m/s]; Vector (nrho). Time-dependent.
toroid_field	toroid_field (7.9.8.1.487)	Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
psi	psi (7.9.8.1.369)	Poloidal magnetic flux [Wb]; Time-dependent;
te	corefield (7.9.8.1.135)	Electron temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ti	corefieldion (7.9.8.1.136)	Ion temperature [eV]; (source term in [W.m^-3]). Time-dependent;
ne	corefield (7.9.8.1.135)	Electron density [m^-3]; (source term in [m^-3]).Time-dependent;
ni	corefieldion (7.9.8.1.136)	Ion density [m^-3]; (source term in [m^-3]). Time-dependent;
vtor	corefieldion (7.9.8.1.136)	Toroidal velocity of the various ion species [m.s^-1]; Time-dependent;
profiles1d	profiles1d (7.9.8.1.367)	Profiles derived from the fields solved in the transport equations, or from experiment.
globalparam	globalparam (7.9.8.1.257)	Various global quantities calculated from the 1D profiles. Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.34 coresource

Generic source term for the core transport equations (radial profile). Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).

member	type	description
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.
values(:)	coresource_values (7.9.8.1.153)	Description of the source terms of various origins. Array of structure (nsource). Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.35 coretransp

Generic transport coefficients for the core transport equations (radial profile). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
values(:)	coretransp_values (7.9.8.1.157)	Description of transport term coming from various origins. Array of structure (ntransp). Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.36 cxdiag

Charge Exchange Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	cxsetup (7.9.8.1.160)	diagnostic setup information
measure	cxmeasure (7.9.8.1.159)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.37 distribution

Datastructure for representing data associated with a distribution function one or many particle species. This structure is specifically designed to handle non-Maxwellian distribution function generated during heating and current drive, typically solved using a Fokker-Planck calculation perturbed by a heating scheme (e.g. IC, EC, LH, NBI, or alpha heating) and then relaxed by Coloumb collisions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
distri_vec(:)	distri_vec (7.9.8.1.194)	Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.38 distsource

Sources of particles for input to kinetic equations, e.g. Fokker-Planck calculation. The sources could originate from e.g. NBI or fusion reactions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).

member	type	description
source(:)	distsource_source (7.9.8.1.199)	Source. Time-dependent. Structure array(nsrc_spec)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; scalar

7.9.8.1.39 ecediag

Electron Cyclotron Emission Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	ecesetup (7.9.8.1.203)	diagnostic setup information
measure	ecemeasure (7.9.8.1.202)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.40 edge

CPO for edge/SOL plasma description. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
grid	complexgrid (7.9.8.1.110)	Grid description
species(:)	species_desc (7.9.8.1.438)	Description of ion species. Array of structures(nspecies)
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
fluid	edge_fluid (7.9.8.1.204)	Fluid description of edge plasma. Time-dependent.
kinetic	edge_kinetic (7.9.8.1.210)	Kinetic description of edge plasma. Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.41 efcc

Error field correction coils. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
coil(:)	coil (7.9.8.1.108)	Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.42 equilibrium

Description of a 2D, axi-symmetric, tokamak equilibrium; result of an equilibrium code. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
eqconstraint	eqconstraint (7.9.8.1.217)	measurements to constrain the equilibrium, output values and accuracy of the fit
eqgeometry	eqgeometry (7.9.8.1.218)	Geometry of the plasma boundary
flush	flush (7.9.8.1.231)	FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.
global_param	global_param (7.9.8.1.256)	0d output parameters
profiles_1d	profiles_1d (7.9.8.1.368)	output profiles as a function of the poloidal flux
profiles_2d(:)	equilibrium_profiles_2d (7.9.8.1.223)	Output profiles in the poloidal plane. Time-dependent
coord_sys	coord_sys (7.9.8.1.129)	flux surface coordinate system on a square grid of flux and angle
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.43 fusiondiag

Fusion product diagnostics; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
fus_product(:)	fusiondiag_fus_product (7.9.8.1.250)	Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.44 halphadiag

H/D alpha line integrated diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	halpha_setup (7.9.8.1.258)	setup for the lines of sight of the line integrated measurement
intensity	exp1D (7.9.8.1.225)	Measured light intensity (a.u.). Time-dependent. Vector (nlos)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.45 heat_sources

Description of a set of heat sources or sinks. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
sources(:)	calorimetry_heat_source (7.9.8.1.101)	Heat sources. Array of structure (nheat_source)
sinks(:)	calorimetry_heat_source (7.9.8.1.101)	Heat sinks. Array of structure (nheat_sink)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.46 interfdiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
expression	string (7.9.8.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.8.1.424)	Geometric description of the lines of sight
measure	exp1D (7.9.8.1.225)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.47 ironmodel

Model of the iron circuit; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
desc_iron	desc_iron (7.9.8.1.165)	Description of the iron segments
magnetise	magnetise (7.9.8.1.288)	Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.48 langmuirdiag

Langmuir probes; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
potential	lang_measure (7.9.8.1.272)	Floating potential [V]. All children are vectors(npot)
bias	lang_measure (7.9.8.1.272)	Biasing potential [V]. All children are vectors(bias)
jsat	lang_measure (7.9.8.1.272)	Ion saturation current [A/m^2]. All children are vectors(njsat)
ne	lang_derived (7.9.8.1.271)	Electron density [m^-3]. All children are vectors(ndensity).
te	lang_derived (7.9.8.1.271)	Electron Temperature [eV]. All children are vectors(nte)
machpar	lang_derived (7.9.8.1.271)	Parallel Mach number. All children are vectors(nmach)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.49 launchs

RF wave launch conditions. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
name	vecstring_type (7.9.8.1.20)	Antenna name, Vector of strings (nantenna)
type	vecstring_type (7.9.8.1.20)	Wave type (LH, EC, IC, ...), Vector of strings (nantenna)
frequency	vecflt_type (7.9.8.1.18)	Wave frequency [Hz], Vector (nantenna).
mode	vecint_type (7.9.8.1.19)	Incoming wave mode (+ 1 : slow wave only; -1 both slow and fast wave modes). Vector of integers (nantenna). Time-dependent
position	rzphi1D (7.9.8.1.393)	Reference global position of the antenna. Time-dependent
spectrum	spectrum (7.9.8.1.441)	Spectral properties of the wave.
beam	launchs_rfbeam (7.9.8.1.276)	Beam characteristics
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.50 lithiumdiag

Lithium Beam Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	lithsetup (7.9.8.1.284)	diagnostic setup information
measure	lithmeasure (7.9.8.1.283)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.51 magdiag

Magnetic diagnostics. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
ip	exp0D (7.9.8.1.224)	Plasma current [A]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar
diamagflux	exp0D (7.9.8.1.224)	Diamagnetic flux [Wb]; Time-dependent; Scalar
diamagener	exp0D (7.9.8.1.224)	Diamagnetic energy [J]; Time-dependent; Scalar
flux_loops	flux_loops (7.9.8.1.232)	Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop
bpol_probes	bpol_probes (7.9.8.1.98)	Poloidal field probes
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.52 mhd

MHD linear stability. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to document the normalisation of rho and j in this CPO.

member	type	description
n(:)	mhd_mode (7.9.8.1.292)	Vector of toroidal mode numbers; Structure Array (ntor); Time-dependent
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.53 msediag

MSE Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
polarimetry	polarimetry (7.9.8.1.362)	This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.
spectral	spectral (7.9.8.1.440)	This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.54 nbi

Neutral Beam Injection. Input to NBI source codes; describes the neutrals that are about to be launched into the torus; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
nbi_unit(:)	nbi_unit (7.9.8.1.314)	Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.55 neoclassic

Neoclassical quantities (including transport coefficients). Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
desc_impur	desc_impur (7.9.8.1.164)	Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains all the composition information for the simulation (main ions, impurities, neutrals, edge species).
ni_neo	transcoefion (7.9.8.1.491)	Neoclassical transport coefficients for ion density equation. Time-dependent.
ne_neo	transcoefel (7.9.8.1.489)	Neoclassical transport coefficients for electron density equation. Time-dependent.
nz_neo(:)	transcoefimp (7.9.8.1.490)	Neoclassical transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_neo	transcoefion (7.9.8.1.491)	Neoclassical transport coefficients for ion temperature equation. Time-dependent.
te_neo	transcoefel (7.9.8.1.489)	Neoclassical transport coefficients for electron temperature equation. Time-dependent.
tz_neo(:)	transcoefimp (7.9.8.1.490)	Neoclassical transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
mtor_neo	transcoefel (7.9.8.1.489)	Neoclassical transport coefficients for total toroidal momentum equation. Time-dependent.
sigma	vecflt_type (7.9.8.1.18)	Neoclassical conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
jboot	vecflt_type (7.9.8.1.18)	Bootstrap current density [A.m^-2]. Time-dependent. Vector(nrho).
er	vecflt_type (7.9.8.1.18)	Radial electric field [V/m]. Time-dependent. Vector(nrho).
vpol	matflt_type (7.9.8.1.15)	Neoclassical poloidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
vtor	matflt_type (7.9.8.1.15)	Neoclassical toroidal rotation of each ion species [m/s]. Time-dependent. Matrix(nrho,nion).
mach	matflt_type (7.9.8.1.15)	Mach number of each ion species. Time-dependent. Matrix(nrho,nion).
utheta_e	vecflt_type (7.9.8.1.18)	Electron poloidal flow [m/s]. Time-dependent. Vector(nrho).
utheta_i	matflt_type (7.9.8.1.15)	Ion poloidal flow [m/s]. Time-dependent. Matrix(nrho,nion).
viscosity_par	matflt_type (7.9.8.1.15)	Ion parallel viscosity [?]. Time-dependent. Matrix(nrho,nion).

member	type	description
impurity(:)	neoclassic_impurity (7.9.8.1.316)	Array(nimp). Time-dependent
fext	array3dflt_type (7.9.8.1.7)	Moments of parallel external force on each ion species [T.J.m^-3]. Time-dependent. Array3D(nrho,nion,nmoment).
jext	vecflt_type (7.9.8.1.18)	Current density response to fext [A.m^-2]. Time-dependent. Vector(nrho).
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.56 ntm

Description of a Neoclassical Tearing Mode and its evolution.Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
mode(:)	ntm_mode (7.9.8.1.321)	List of the various NTM modes appearing during the simulation. If a given (m,n) mode appears several times, use the "event" index of onset and full_evol to describe every occurence of the mode. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.57 orbit

Orbits for a set of particles. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
com	com (7.9.8.1.109)	COM (Constants Of Motion) parameters identifying an orbit
trace	trace (7.9.8.1.488)	Position of particle in 5D space (3D in real and 2D in velocity).
global_param	orbit_global_param (7.9.8.1.332)	Global quantities associated with an orbit.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.58 pellets

Description of pellets. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
compositions	compositions_type (7.9.8.1.127)	Pellet composition
pellet(:)	pellet (7.9.8.1.340)	Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.59 pfsystems

Description of the active poloidal coils, passive conductors, currents flowing in those and mutual electromagnetic effects of the device; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
pfcoils	pfcoils (7.9.8.1.350)	Active poloidal field coils
pfpassive	pfpassive (7.9.8.1.354)	Passive axisymmetric conductor description
pfcircuits	pfcircuits (7.9.8.1.349)	Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system
pfsupplies	pfsupplies (7.9.8.1.356)	PF power supplies
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.60 polardiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
expression	string (7.9.8.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.8.1.424)	Geometric description of the lines of sight
measure	exp1D (7.9.8.1.225)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.61 power_conv

Power conversion system. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
cycle_type	string (7.9.8.1.4)	Type of cycle. String
circuits(:)	circuits (7.9.8.1.102)	Description of the circuit of the power conversion system. Array of structure. (ncircuits).
power_recirc	float (7.9.8.1.2)	Recirculated electric power (input to the power conversion actor). [W] Scalar
power_net	float (7.9.8.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.8.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar
efficiency	float (7.9.8.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.62 reflectomet

Reflectometry CPO, contains antennas and received signals; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
refl_receive(:)	refl_receive (7.9.8.1.377)	Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.
antennas(:)	reflectometry_antennas (7.9.8.1.378)	Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array. Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.63 rfadiag

Retarding field analyser Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	rfasetup (7.9.8.1.384)	diagnostic setup information
measure	rfameasure (7.9.8.1.383)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.64 sawteeth

Description of sawtooth events. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
crash_trig	integer (7.9.8.1.3)	Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.

member	type	description
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m] given by sqrt(phi/B0/pi), where B0 = toroidfield%bvac_r%value / toroidfield%r0. Vector (nrho). Time-dependent.
profiles1d	sawteeth_profiles1d (7.9.8.1.400)	Core profiles after sawtooth crash
diags	sawteeth_diags (7.9.8.1.399)	NO DOCS
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.65 scenario

Scenario characteristics, to be used as input or output of a whole discharge simulator. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
centre	scenario_centre (7.9.8.1.401)	central values of the profiles (at magnetic axis)
composition	scenario_composition (7.9.8.1.402)	Plasma composition (description of ion species).
configs	scenario_configuration (7.9.8.1.403)	Strings describing the tokamak configuration
confinement	scenario_confinement (7.9.8.1.404)	characteristic confinement times
currents	scenario_currents (7.9.8.1.405)	data related to current sources and current diffusion
edge	scenario_edge (7.9.8.1.406)	edge value (@ LCMS)
energy	scenario_energy (7.9.8.1.407)	plasma energy content
eqgeometry	eqgeometry (7.9.8.1.218)	Geometry of the plasma boundary
global_param	scenario_global (7.9.8.1.408)	Global scalar values
heat_power	scenario_heat_power (7.9.8.1.409)	Power delivred to plasma (thermal and non thermal)
itb	scenario_itb (7.9.8.1.411)	Values characteristics of the Internal Transport Barrier
lim_div_wall	scenario_lim_div_wall (7.9.8.1.412)	values on the plate of divertor or on the limitor or on the wall (@ LCMS)
line_ave	scenario_line_ave (7.9.8.1.413)	line averaged value
neutron	scenario_neutron (7.9.8.1.414)	neutron flux for DD and DT reactions
ninety_five	scenario_ninety_five (7.9.8.1.415)	values at 95% of poloidal flux
pedestal	scenario_pedestal (7.9.8.1.416)	Values at the top of the H-mode pedestal
references	scenario_references (7.9.8.1.419)	References
reactor	scenario_reactor (7.9.8.1.417)	reactor data (such as electricity cost ...)
sol	scenario_sol (7.9.8.1.420)	SOL characteristic (@ LCMS)
vol_ave	scenario_vol_ave (7.9.8.1.421)	volume averaged value
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.66 solcurdiag

SOL current diagnostic. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
sol_current(:)	solcurdiag_sol_current (7.9.8.1.429)	Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent
clusters(:)	clusters (7.9.8.1.104)	Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar
codeparam	codeparam (7.9.8.1.105)	Code parameters

7.9.8.1.67 temporary

Storage of undeclared data model components; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
non_timed	temporary_nt (7.9.8.1.451)	Time-independent quantities (parameters)
timed	temporary_t (7.9.8.1.467)	Time-dependent quantities
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.68 topinfo

General info about the database entry. CPO.

member	type	description
dataprovider	string (7.9.8.1.4)	Name of the main data provider (the person who filled the original data)
description	string (7.9.8.1.4)	Pulse/Entry description
firstputdate	string (7.9.8.1.4)	Date of the original data submission
lastupdate	string (7.9.8.1.4)	Date of the last data addition in the tree
source	string (7.9.8.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.8.1.4)	Any additional comment
dataversion	string (7.9.8.1.4)	Version of the data structure
workflow	string (7.9.8.1.4)	Workflow which has been used to produce the present entry. Exact format to be defined with the platform group. User-specific input files (if allowed) must be stored there as well.
entry	entry_def (7.9.8.1.215)	Definition of this database entry
parent_entry	entry_def (7.9.8.1.215)	Definition of the entry of the direct parent (if any)
mdinfo	mdinfo (7.9.8.1.290)	Information related to machine description for this entry

7.9.8.1.69 toroidfield

Toroidal field. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
desc_tfcoils	tf_desc_tfcoils (7.9.8.1.482)	Description of the toroidal field coils
nturns	integer (7.9.8.1.3)	Number of total turns in the toroidal field coil
ncoils	integer (7.9.8.1.3)	Number of packets of coils
current	exp0D (7.9.8.1.224)	Current in the toroidal field coils [A]; Time-dependent. Scalar.
bvac_r	exp0D (7.9.8.1.224)	Vacuum field times radius in the toroidal field magnet [T.m]. Positive sign means anti-clockwise when viewed from above. Time-dependent. Scalar.
r0	float (7.9.8.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
p_cryo	float (7.9.8.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
wp_nh_max	float (7.9.8.1.2)	Peak nuclear heating in winding pack [W*m^-3]. Time-dependent. Scalar
tfc_nh	float (7.9.8.1.2)	Nuclear heating on the toroidal field coils [W]; Time-dependent. Scalar
neut_flux_inb	float (7.9.8.1.2)	Neutron flux arriving at the inboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
neut_flux_outb	float (7.9.8.1.2)	Neutron flux arriving at the ouboard surface of the coil (on the plasma side) [neutron.s^-1.m^-2]; Time-dependent. Scalar.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent. Scalar.

7.9.8.1.70 tsdiag

Thomson scattering Diagnostic; Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
setup	tssetup (7.9.8.1.496)	diagnostic setup information
measure	tsmeasure (7.9.8.1.495)	Measured values
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.71 turbulence

Turbulence; Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
composition	turbcomposition (7.9.8.1.497)	Plasma composition (description of ion species).
coordsys	turbcoordsys (7.9.8.1.498)	Decription of the coordinates and metric used by the codes.
var0d	turbvar0d (7.9.8.1.502)	Diagnostic fast time traces.
var1d	turbvar1d (7.9.8.1.503)	Dependent variable radial profile.
var2d	turbvar2d (7.9.8.1.504)	Dependent variable axisymmetric.
var3d	turbvar3d (7.9.8.1.505)	Dependent variable morphology. Grid is defined in coord_sys/turbgrid.
var4d	turbvar4d (7.9.8.1.506)	Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.
var5d	turbvar5d (7.9.8.1.507)	Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.
spec1d	turbspec1d (7.9.8.1.501)	Toroidal mode number spectra.
env1d	turbenv1d (7.9.8.1.499)	Parallel fluctuation envelope.
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.

7.9.8.1.72 wall

General Wall representation. Time-dependent CPO.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
wall0d	wall_wall0d (7.9.8.1.522)	Simple 0D description of plasma-wall interaction
wall2d_mhd	wall2d_mhd (7.9.8.1.510)	Simplified wall that encloses necessary information for RWM codes.
wall2d(:)	wall2d (7.9.8.1.509)	2D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, single contour limiter, disjoint gapped plasma facing components, ...). Time-dependent
wall3d(:)	wall3d (7.9.8.1.511)	3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent
wall_types(:)	wall_types (7.9.8.1.515)	List of reference wall types (e.g. bulk tungsten, tungsten-coated CFC, ...) ; Array of structures (number of reference wall types)
compounds(:)	compound_desc (7.9.8.1.128)	Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)
elements(:)	element_desc (7.9.8.1.214)	Chemical elements present in the wall units, including elements from the plasma (gas + impurities). Use by compounds. Array of structures (number of elements)
compositions	compositions_type (7.9.8.1.127)	NO DOCS
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar.

7.9.8.1.73 waves

RF wave propagation and deposition. Time-dependent CPO

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
coherentwave(:)	coherentwave (7.9.8.1.107)	Wave description for each frequency. Time-dependent. Structure array(nfreq)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.74 Utility Structures

7.9.8.1.75 amns_constituentType

Contains all of the information to characterize an AMNS constituent.

member	type	description
label	string (7.9.8.1.4)	String identifier for reaction constituent (e.g. ”D”, ”C”).
zn	integer (7.9.8.1.3)	Number of protons in the nucleus (nuclear charge); 0 if none (e-, gamma)

member	type	description
mn	integer (7.9.8.1.3)	Number of nucleons in the nucleus (nuclear mass); 0 if none (e-, gamma); Not set if not important (e.g. for an atomic process that is not isotope dependent)
multiplicity	float (7.9.8.1.2)	Multiplicity in the compound

Type of: reacprodType:constituents (4475)

7.9.8.1.76 amns_processType

Contains all of the information to characterize an AMNS process; Vector(nprocs).

member	type	description
proc_label	string (7.9.8.1.4)	Label for process (e.g. EI, RC; could also include error estimates)
reactant(:)	reacprodType (7.9.8.1.372)	Array of reactants; Vector(nreac).
product(:)	reacprodType (7.9.8.1.372)	Array of products; Vector(nprod).
sup_string	vecstring_type (7.9.8.1.20)	String array to be used if supplementary information is required.
sup_real	vecflt_type (7.9.8.1.18)	Real array to be used if supplementary information is required.
sup_int	vecint_type (7.9.8.1.19)	Int array to be used if supplementary information is required.
quality	identifier (7.9.8.1.263)	Characterize the data quality
err_proc_label	string (7.9.8.1.4)	"proc_label" of an associated error table of the same type as the primary quantity

Type of: amns:process (4127)

7.9.8.1.77 antenna_ec

Vector of Electron Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.8.1.4)	Antenna name
frequency	float (7.9.8.1.2)	Frequency [Hz]
power	exp0D (7.9.8.1.224)	Power [W]; Time-dependent
mode	integer (7.9.8.1.3)	Incoming wave mode (+ or -1 for O/X mode); Time-dependent
position	rzphi0D (7.9.8.1.392)	Launching position in the global reference system; Time-dependent
launchangles	launchangles (7.9.8.1.273)	Launching angles of the beam
beam	rfbeam (7.9.8.1.385)	Beam characteristics at the launching position
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: antennas:antenna_ec (4128)

7.9.8.1.78 antenna_ic

Vector of Ion Cyclotron antennas. Time-dependent

member	type	description
name	string (7.9.8.1.4)	Antenna name; String
frequency	exp0D (7.9.8.1.224)	Frequency [Hz]; Time-dependent; Exp0d
power	exp0D (7.9.8.1.224)	Power [W]; Time-dependent; Exp0d
ntor	vecint_type (7.9.8.1.19)	Toroidal mode numbers [-]; Time-dependent; Vector(n_ntor)
power_ntor	vecflt_type (7.9.8.1.18)	Power coupled in each toroidal mode [W]; Time-dependent; Vector(n_ntor)
setup	antennaic_setup (7.9.8.1.80)	Detailed description of IC antenna hardware and internal settings
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: antennas:antenna_ic (4128)

7.9.8.1.79 antenna_lh

Vector of Lower Hybrid antennas. Time-dependent

member	type	description
name	string (7.9.8.1.4)	Antenna name, String
frequency	float (7.9.8.1.2)	Frequency [Hz]

member	type	description
power	exp0D (7.9.8.1.224)	Power [W]; Exp0d. Time-dependent
n_par	float (7.9.8.1.2)	Main parallel refractive index of the launched spectrum, for multi-junction antennas. Time-dependent
position	rzphi0D (7.9.8.1.392)	Reference global antenna position. Time-dependent
setup	antennalh_setup (7.9.8.1.81)	Detailed description of LH antennas.
plasmaedge	plasmaedge (7.9.8.1.360)	Plasma edge characteristics in front of the antenna.
beam	rfbeam (7.9.8.1.385)	Beam characteristics
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: antennas:antenna_lh (4128)

7.9.8.1.80 antennaic_setup

Detailed description of an ICRH antenna; hardware and settings

member	type	description
straps(:)	straps (7.9.8.1.444)	Properties of the IC antenna strap; Time-dependent; Vector(nstraps)
current	current (7.9.8.1.158)	Description of the IC surface currents on the antenna straps and on passive components.

Type of: antenna_ic:setup (4181)

7.9.8.1.81 antennalh_setup

Detailed description of LH antennas

member	type	description
modules	modules (7.9.8.1.303)	Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

Type of: antenna_lh:setup (4182)

7.9.8.1.82 b0r0

Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, normalisation used by the ETS

member	type	description
r0	float (7.9.8.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
b0	float (7.9.8.1.2)	Vacuum field at r0 [T]; Positive sign means anti-clockwise when viewed from above. Scalar. Time-dependent.

Type of: corefast:toroid_field (4134) I coresource:toroid_field (4138) I dist_geometry_0d:toroid_field (4278) I dist-source_global_param:toroid_field (4298) I global_param:toroid_field (4359) I mhd:toroid_field (4156) I waves_global_param:to (4629)

7.9.8.1.83 bb

Breeding blanket

member	type	description
nb_bb	float (7.9.8.1.2)	Total (in the reactor) number of breeding blanket module; Scalar
nb_bb_polcut	float (7.9.8.1.2)	Number of bb modules on a poloidal cut; Scalar
teta_bb	float (7.9.8.1.2)	Angle (0 for equatorial outboard, then in anti-clokwise direction) of bb module; [deg]
tbr	float (7.9.8.1.2)	Tritium breeding ratio of the blanket [-]; Scalar
neutro_resul	neutro_resul (7.9.8.1.319)	Neutronic results
inboard	bb_specs (7.9.8.1.86)	Inboard
outboard	bb_specs (7.9.8.1.86)	Outboard

Type of: bb_shield:bb (4129)

7.9.8.1.84 bb_dimension

dimension of the various modules

member	type	description
radial	vecflt_type (7.9.8.1.18)	Radial dimension [m]. Vector(nmodules)
toroidal	vecflt_type (7.9.8.1.18)	Toroidal dimension [m]. Vector(nmodules)
poloidal	vecflt_type (7.9.8.1.18)	Poloidal dimension [m]. Vector(nmodules)

Type of: bb_geometry:bot_cap_dim (4188) I bb_geometry:top_cap_dim (4188) I bb_specs:dimension (4189)

7.9.8.1.85 bb_geometry

Geometrical parameters of "the" reference outboard blanket module

member	type	description
dr_fw	float (7.9.8.1.2)	Radial thickness of the FW [m]; Scalar
dr_bz	float (7.9.8.1.2)	Radial thickness of the BZ (between the FW and the 1st back plate wall) [m]; Scalar
dr_bp	float (7.9.8.1.2)	Radial thickness of the BPs integrated to the module [m]; Scalar
dr_bp_plates	vecflt_type (7.9.8.1.18)	Radial thickness of every BP integrated to the module [m]; Vector(nplates)
dr_bp_he	vecflt_type (7.9.8.1.18)	Radial thickness of Helium layers [m]; Vector(nplates)
dr_man	float (7.9.8.1.2)	Radial thickness of the banana manifold common to all modules [m]; Scalar
dt_sw	float (7.9.8.1.2)	Toroidal thickness of side walls (or covers) [m]; Scalar
dt_bz	float (7.9.8.1.2)	Toroidal dimension of the BZ (between the two side walls [m]; Scalar
dp_bz	float (7.9.8.1.2)	Poloidal dimension of the Breeder zone [m]; Scalar
top_cap_dim	bb_dimension (7.9.8.1.84)	Top cap dimension of bb modules
bot_cap_dim	bb_dimension (7.9.8.1.84)	Bottom cap dimension of bb modules
a_fw_ch	float (7.9.8.1.2)	First wall channel radial dimension [m]; Scalar
b_fw_ch	float (7.9.8.1.2)	First wall channel toroidal dimension [m]; Scalar
td_tc_ch	float (7.9.8.1.2)	Top cap channel toroidal dimension [m]; Scalar
rd_tc_ch	float (7.9.8.1.2)	Top cap channel radial dimension [m]; Scalar
td_bc_ch	float (7.9.8.1.2)	Bottom cap channel toroidal dimension [m]; Scalar
rd_bc_ch	float (7.9.8.1.2)	Bottom cap channel radial dimension [m]; Scalar
n_fw_ch	float (7.9.8.1.2)	Number of first wall channels; Scalar
n_fw_circ	float (7.9.8.1.2)	Number of circulation in channel first wall channels; Scalar
a_sg_ch	float (7.9.8.1.2)	Stiffening grid channel dimension 1 [m]; Scalar
b_sg_ch	float (7.9.8.1.2)	Stiffening grid channel dimension 2 [m]; Scalar
n_sg_ch	float (7.9.8.1.2)	Number of channels per stiffening plate [m]; Scalar
sg_thick	float (7.9.8.1.2)	Stiffening grid thickness [m]; Scalar
sg_weld	float (7.9.8.1.2)	Stiffening grid required dimension for welding [m]; Scalar
sg_in_out	float (7.9.8.1.2)	Stiffening grid input/output geometry length [m]; Scalar
r_sg_cp	float (7.9.8.1.2)	Percentage of the cooling plate length [-]; Scalar
cp_tor_gap	float (7.9.8.1.2)	Gap between cooling plates and toroidal breeder [m]; Scalar
a_cp_ch	float (7.9.8.1.2)	Cooling plates channel dimension 1 [m]; Scalar
b_cp_ch	float (7.9.8.1.2)	Cooling plates channel dimension 2 [m]; Scalar
n_cp_ch	float (7.9.8.1.2)	Number of channels per cooling plates [m]; Scalar
cp_thick	float (7.9.8.1.2)	Cooling plates thickness [m]; Scalar
n_pol_bu	float (7.9.8.1.2)	Number of poloidal breeder units; Scalar
n_tor_bu	float (7.9.8.1.2)	Number of toroidal breeder units; Scalar
n_cp_bu	float (7.9.8.1.2)	Number of cooling plates per breeder unit; Scalar
cp_in_out	float (7.9.8.1.2)	Cooling plate input/output geometry length [m]; Scalar
he_man_tck	float (7.9.8.1.2)	Helium stage manifold thickness [m]; Scalar
man_tck	float (7.9.8.1.2)	Manifold zone thickness [m]; Scalar
pbli_bptb_od	float (7.9.8.1.2)	Output diameter of pbli tube [m]; Scalar
pbli_bptb_id	float (7.9.8.1.2)	Input diameter of pbli tube [m]; Scalar
he_bptb_od	float (7.9.8.1.2)	Output diameter of He inlet tube [m]; Scalar
he_bptb_id	float (7.9.8.1.2)	Input diameter of He inlet tube [m]; Scalar
dr_max_fw	float (7.9.8.1.2)	First wall frontmost thickness [m]; Scalar
dr_fwpl	float (7.9.8.1.2)	Radial thickness of fisrt protective layer [m]; Scalar

Type of: hcllbb_specs:mod_geom (4364)

7.9.8.1.86 bb_specs

Inboard

member	type	description
nbb	float (7.9.8.1.2)	Number of inboard or outboard bb modules (in a poloidal cut), Scalar
r1	float (7.9.8.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
r2	float (7.9.8.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard bb located at the equatorial plane [m]; Scalar
dimension	bb_dimension (7.9.8.1.84)	dimension of the various modules

Type of: bb:inboard (4186) I bb:outboard (4186)

7.9.8.1.87 beamletgroup

Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamlet-group provides a fair description.

member	type	description
position	rzphi0D (7.9.8.1.392)	Position of centre of injection unit surface (or grounded grid).
tang_rad	float (7.9.8.1.2)	Tangency radius (major radius where the central line of a NBI unit is tangent to a circle around the torus) [m]
angle	float (7.9.8.1.2)	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane [rad]
direction	integer (7.9.8.1.3)	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
width_horiz	float (7.9.8.1.2)	Horizontal width of the beam group at the injection unit surface (or grounded grid) [m]
width_vert	float (7.9.8.1.2)	Vertical width of the beam group at the injection unit surface (or grounded grid) [m]
focussing	focussing (7.9.8.1.236)	Describes how the beam is focussed.
divergence	divergence (7.9.8.1.200)	Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.
beamlets	beamlets (7.9.8.1.88)	Detailed information on beamlets.

Type of: nbi_unit:beamletgroup (4417)

7.9.8.1.88 beamlets

Detailed information on beamlets.

member	type	description
position	rzphi1D (7.9.8.1.393)	Position of beamlets. Vector rzphi1D (nbeamlets)
tang_rad_blt	vecflt_type (7.9.8.1.18)	Tangency radius (major radius where the central line of a beamlet is tangent to a circle around the torus) [m]; Vector(nbeamlets)
angle_blt	vecflt_type (7.9.8.1.18)	Angle of inclination between a line at the centre of a beamlet and the horiontal plane [rad]; Vector(nbeamlets)
pow_frc_blt	vecflt_type (7.9.8.1.18)	Fraction of power of a unit injected by a beamlet; Vector(nbeamlets)

Type of: beamletgroup:beamlets (4190)

7.9.8.1.89 beamtracing

Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent

member	type	description
npoints	integer (7.9.8.1.3)	Number of points along each ray/beam. Integer
power	float (7.9.8.1.2)	Initial power in each ray/beam [W]. Float. Time-dependent
dnpar	vecflt_type (7.9.8.1.18)	Spectral width in refractive index associated with each ray/beam, Vector (npoints). Time-dependent
length	vecflt_type (7.9.8.1.18)	Ray/beam curvilinear length [m], Vector (npoints). Time-dependent
position	waves_rtposition (7.9.8.1.531)	Ray/beam position
wavevector	waves_rtwavevector (7.9.8.1.532)	Ray/beam wave vector.

member	type	description
polarization	polarization (7.9.8.1.363)	Wave field polarization along the ray/beam.
powerflow	powerflow (7.9.8.1.366)	Power flow along the ray/beam.

Type of: coherentwave:beamtracing (4210)

7.9.8.1.90 bolometer_measure

Measured values

member	type	description
prad	exp1D (7.9.8.1.225)	Radiated power measured by the various lines of sights [W]. Vector (nchords). Time-dependent.

Type of: bolometer:measure (4130)

7.9.8.1.91 bolometer_processed

Processed values

member	type	description
prad_tot	exp0D (7.9.8.1.224)	Total radiated power [W]. Time-dependent.
prad_core	exp0D (7.9.8.1.224)	Radiated power from the core plasma [W]. Time-dependent.

Type of: bolometer:process (4130)

7.9.8.1.92 bolometer_setup

diagnostic setup information

member	type	description
id	vecstring_type (7.9.8.1.20)	ID of the lines of sight. Array of strings (nchords).
los	setup_line (7.9.8.1.424)	Geometry of the lines of sight.
etendue	vecflt_type (7.9.8.1.18)	Etendue of the detector geometry [m^2.sr]. Array of floats (nchords).

Type of: bolometer:setup (4130)

7.9.8.1.93 boundary

Boundary condition for the transport equation. Time-dependent.

member	type	description
value	vecflt_type (7.9.8.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-Wb, 2-A, 3-V]. For type 1 to 3, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.8.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.8.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- edge value of poloidal flux; 2- total current inside boundary; 3- edge Vloop; 4- not defined; 5- generic boundary condition expressed as a1*(dpsi_drho_tor)+a2*psi=a3. . Time-dependent.Scalar
rho	float (7.9.8.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Scalar
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: psi:boundary (4472)

7.9.8.1.94 boundary_neutrals

Structure for the boundary condition of core transport equations (neutrals). Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Value of the boundary condition. Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array1D(3)
type	integer (7.9.8.1.3)	Type of the boundary condition for the transport solver. 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Int
rho_tor	float (7.9.8.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Float.

Type of: corefieldneutral:boundary (4240) I corefieldneutrale:boundary (4241) I corefieldneutralv:boundary (4242)

7.9.8.1.95 boundaryel

Structure for the boundary condition of core transport equations (electrons) Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the vector is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Vector(3).
source	string (7.9.8.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	integer (7.9.8.1.3)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Scalar
rho_tor	float (7.9.8.1.2)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Scalar

Type of: corefield:boundary (4238)

7.9.8.1.96 boundaryimp

Structure for the boundary condition of core transport equations (impurities) Time-dependent

member	type	description
value	matflt_type (7.9.8.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Array 2D (3,nzimp)
source	string (7.9.8.1.4)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); String
type	vecint_type (7.9.8.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nzimp)
rho	vecflt_type (7.9.8.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nzimp)
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: impurity_type:boundary (4369)

7.9.8.1.97 boundaryion

Structure for the boundary condition of core transport equations (ions) Time-dependent

member	type	description
value	matflt_type (7.9.8.1.15)	Value of the boundary condition (in case flag = 2). Unit depends on type, respectively [1-field, 2-field.m^-1, 3-m, 4-field.s^-1]. For type 1 to 4, only the first position in the first dimension is used. For type 5, all three positions are used, meaning respectively a1, a2, a3. Time-dependent. Matrix(3,nion)
source	vecstring_type (7.9.8.1.20)	Source of the boundary condition (any comment describing its origin : code, path to diagnostic signals, massaging); Array of strings (nion)

member	type	description
type	vecint_type (7.9.8.1.19)	Type of the boundary condition for the transport solver (in case flag = 2). 0- equation not solved; 1- value of the field y; 2-radial derivative of the field (-dy/drho_tor); 3-scale length of the field y/(-dy/drho_tor); 4- flux; 5- generic boundary condition y expressed as a1y'+a2y=a3. Time-dependent. Vector(nion)
rho_tor	vecflt_type (7.9.8.1.18)	Position of the boundary condition (in terms of toroidal flux coordinate) for the transport solver [m]. Outside this boundary, the value of the data are considered to be prescribed. Time-dependent. Vector(nion)

Type of: corefieldion:boundary (4239)

7.9.8.1.98 bpol_probes

Poloidal field probes

member	type	description
setup_bprobe	setup_bprobe (7.9.8.1.422)	diagnostic setup information
measure	exp1D (7.9.8.1.225)	Measured value [T]; Time-dependent; Vector (nprobes)

Type of: magdiag:bpol_probes (4155)

7.9.8.1.99 bremsstrahl_measure

Measured values

member	type	description
zeff	exp1D (7.9.8.1.225)	Effective charge measured along a line of sight [-]. Time-dependent. Vector (nchords)

Type of: bremsstrahl:measure (4131)

7.9.8.1.100 bremsstrahl_setup

diagnostic setup information

member	type	description
id	vecstring_type (7.9.8.1.20)	ID of the lines of sight. Array of strings (nchords).
los	setup_line_exp (7.9.8.1.425)	Geometry of the lines of sight.

Type of: bremsstrahl:setup (4131)

7.9.8.1.101 calorimetry_heat_source

Generic complex type for heat source or sink

member	type	description
name	string (7.9.8.1.4)	Name of the source. String
temp_in	float (7.9.8.1.2)	Temperature of the input flow [K]; Scalar
temp_out	float (7.9.8.1.2)	Temperature of the output flow [K]; Scalar
press_in	float (7.9.8.1.2)	Imput Pressure [Pa];Scalar
press_out	float (7.9.8.1.2)	Output Pressure [Pa];Scalar
flow	float (7.9.8.1.2)	Flow of the source [kg/s]; Scalar
power	float (7.9.8.1.2)	Power of the source [W];Scalar

Type of: heat_sources:sinks (4149) I heat_sources:sources (4149)

7.9.8.1.102 circuits

Description of the circuit of the power conversion system. Array of structure. (ncircuits).

member	type	description
component(:)	power_conv_component (7.9.8.1.364)	Description of the components of the power conversion system. Array of structure (ncomp).

member	type	description
power_net	float (7.9.8.1.2)	Net electric power generated [W]. Scalar
power_int	float (7.9.8.1.2)	Total electric power consumption of the power conversion system.[W]. Scalar
efficiency	float (7.9.8.1.2)	Efficiency of the reactor (ratio of the alternator electrical power to the total power needed to operate the reactor)

Type of: power_conv:circuits (4165)

7.9.8.1.103 circularcoil

Circular coil description

member	type	description
centre	rz0D (7.9.8.1.386)	Circular coil centre
hlength	float (7.9.8.1.2)	Half length along coil axis [m]
radialhwidth	float (7.9.8.1.2)	Half width, (outer radius-inner radius)/2 [m]

Type of: tf_desc_tfcoils:circularcoil (4585)

7.9.8.1.104 clusters

Cluster of tile rings to define and reference superset structures using the individual tile rings. A coil ring can coexist on two top level structures. Structure array (ncluster).

member	type	description
name	string (7.9.8.1.4)	Name of the toroidally distributed tile set. String.
start	integer (7.9.8.1.3)	ID of the tile set as a scalar where this superset starts. Integer.
finish	integer (7.9.8.1.3)	ID of the tile set as a scalar where this superset finishes. Integer.

Type of: solcurdiag:clusters (4170)

7.9.8.1.105 codeparam

Code parameters

member	type	description
codename	string (7.9.8.1.4)	Name of the code
codeversion	string (7.9.8.1.4)	Version of the code (as in the ITM repository)
parameters	string (7.9.8.1.4)	List of the code specific parameters, string expected to be in XML format.
output_diag	string (7.9.8.1.4)	List of the code specific diagnostic/output, string expected to be in XML format.
output_flag	integer (7.9.8.1.3)	Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then code specific. Negative values mean the result shall not be used. Exact rules could discussed and implemented in the module wrapper. Time-dependent.

Type of: amns:codeparam (4127) I antenna_ec:codeparam (4180) I antenna_ic:codeparam (4181) I antenna_lh:codeparam (4182) I antennas:codeparam (4128) I bb_shield:codeparam (4129) I bolometer:codeparam (4130) I boundary:codeparam (4196) I boundaryimp:codeparam (4199) I bremsstrahl:codeparam (4131) I coherentwave:codeparam (4210) I compositionc:codeparam (4132) I coredelta:codeparam (4133) I coredelta_values:codeparam (4235) I corefast:codeparam (4134) I corefast_values:codeparam (4237) I corefield:codeparam (4238) I corefieldion:codeparam (4239) I coreimpur:codeparam (4135) I coreneutrals:codeparam (4136) I coreprof:codeparam (4137) I coresource:codeparam (4138) I coresource_values:codeparam (4256) I coretransp:codeparam (4139) I coretransp_values:codepara (4260) I cxdiag:codeparam (4140) I distri_vec:codeparam (4297) I distribution:codeparam (4141) I distsource:codeparam (4142) I distsource_source:codeparam (4302) I ecediag:codeparam (4143) I edge:codeparam (4144) I efcc:codeparam (4145) I equilibrium:codeparam (4146) I flush:codeparam (4334) I fusiondiag:codeparam (4147) I fusiondiag_fus_product:cod (4353) I halphadiag:codeparam (4148) I heat_sources:codeparam (4149) I ironmodel:codeparam (4151) I langmuirdiag:codeparam (4152) I launchs:codeparam (4153) I lineintegraldiag:codeparam (4385) I lithiumdiag:codeparam (4154) I magdiag:codeparam (4155) I mhd:codeparam (4156) I msediag:codeparam (4157) I nbi:codeparam (4158) I nbi_unit:codeparam (4417) I neoclassic:codeparam (4159) I ntm:codeparam (4160) I orbit:codeparam (4161) I pellets:codeparam (4162) I pfsystems:codeparam (4163) I power_conv:codeparam (4165) I psi:codeparam (4472) I reflectomet:codeparam (4166) I rfadiag:codeparam (4167) I sawteeth:codeparam (4168) I scenario:codeparam (4169) I solcurdiag:codeparam (4170) I spectral:codeparam (4543) I temporary:codeparam (4171) I toroidfield:codeparam

(4173) I tsdiag:codeparam (4174) I turbulence:codeparam (4175) I wall:codeparam (4176) I waves:codeparam (4177)

7.9.8.1.106 coefficients_neutrals

Recycling and sputtering coefficients used by the neutral solver. The particular causing ion or impurity charge state is determined by the path.

member	type	description
recycling	recycling_neutrals (7.9.8.1.375)	Recycling coefficients. Time-dependent
sputtering	sputtering_neutrals (7.9.8.1.443)	Sputtering coefficients. Time-dependent

Type of: coreneutrals:ioncoeff (4136) I impcoeff:chargestate (4367)

7.9.8.1.107 coherentwave

Wave description for each frequency. Time-dependent. Structure array(nfreq)

member	type	description
wave_id	enum_instance (7.9.8.1.216)	List of identifiers for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC (see waves_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.
composition	composition (7.9.8.1.123)	Plasma composition (description of ion species). OBSOLESCENT.
compositions	compositions_type (7.9.8.1.127)	Contains detailed information on the plasma composition (main ions, impurities, neutrals, edge species).
global_param	waves_global_param (7.9.8.1.526)	Global wave deposition parameters
grid_1d	waves_grid_1d (7.9.8.1.527)	Grid points for 1D profiles.
grid_2d	waves_grid_2d (7.9.8.1.528)	Grid points for 2D profiles and for full wave solutions.
profiles_1d	waves_profiles_1d (7.9.8.1.529)	1D radial profiles
profiles_2d	waves_profiles_2d (7.9.8.1.530)	2D profiles in poloidal cross-section
beamtracing(:)	beamtracing (7.9.8.1.89)	Beam-tracing or ray-tracing solver. Vector(nbeams). Time-dependent
fullwave	fullwave (7.9.8.1.237)	Solution by full wave code
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: waves:coherentwave (4177)

7.9.8.1.108 coil

Individual coil. Time-dependent. Structure array. Replicate this coil structure for coil element in the efcc array.

member	type	description
desc_coils	desc_coils (7.9.8.1.163)	Description of the coils
coilcurrent	exp1D (7.9.8.1.225)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the geometry description [A]; Time-dependent
coilvoltage	exp1D (7.9.8.1.225)	Voltage on the full coil [V]; Time-dependent

Type of: efcc:coil (4145)

7.9.8.1.109 com

COM (Constants Of Motion) parameters identifying an orbit

member	type	description
amn	float (7.9.8.1.2)	Atomic mass of the particle; Scalar
zion	float (7.9.8.1.2)	Atomic charge of the particle; Scalar
energy	vecflt_type (7.9.8.1.18)	Energy of the particle [keV]; Time-dependent; Vector (norbits).
magn_mom	vecflt_type (7.9.8.1.18)	Magnetic momentum [kg m^2 / s^2 / T]; Time-dependent, Vector(norbits).

member	type	description
p_phi	vecflt_type (7.9.8.1.18)	toroidal angular momentum [kg m^2 / s]; Time-dependent; Vector(norbits);
sigma	vecint_type (7.9.8.1.19)	Sign of parallel velocity at psi=psi_max along the orbit; Time-dependent; Vector(norbits)

Type of: orbit:com (4161)

7.9.8.1.110 complexgrid

Generic definition of a complex grid

member	type	description
uid	integer (7.9.8.1.3)	Unique index of this grid. Used for handling multiple grids
id	string (7.9.8.1.4)	Name / identifier string for this grid
spaces(:)	complexgrid_space (7.9.8.1.119)	Definitions of grid spaces. Array of structures (number of spaces)
subgrids(:)	complexgrid_subgrid (7.9.8.1.120)	Definitions of subgrids. Array of structures (number of subgrids)
metric	complexgrid_metric (7.9.8.1.113)	Metric coefficients
geo(:)	complexgrid_geo_global (7.9.8.1.111)	Geometry data for implicit objects
bases(:)	complexgrid_vector (7.9.8.1.121)	Vector bases. Used for aligned vector representation. Time-dependent (added systematically for the COMP child inheritance of that property). Array of structures (number of bases)

Type of: edge:grid (4144) I f_expansion:grid (4330) I fullwave:grid (4340) I source_rate:grid (4536) I wall3d:grid (4614)

7.9.8.1.111 complexgrid_geo_global

Geometry information for implicitly defined grid objects (which cannot be stored in the space definitions); Array of structures (number of alternate geometries).

member	type	description
geotype	integer (7.9.8.1.3)	Type of geometry (id flag). A flag defining how the geometry data associated with grid objects is to be interpreted. If the field is undefined (0=GRID_UNDEFINED), the standard interpretation for; the given coordinate types is assumed.
geotypeid	string (7.9.8.1.4)	Type of geometry (id string).
coordtype	vecint_type (7.9.8.1.19)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
geo_matrix(:)	complexgrid_scalar (7.9.8.1.115)	Geometry data matrix associated with implicit objects. Array of structures (number of subgrids this information is stored on); The exact definition of the stored values depends on the geometry type of the geometry complexgrid_geo_global.geotype;
measure(:)	complexgrid_scalar (7.9.8.1.115)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects) in this geometry. [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:geo (4213)

7.9.8.1.112 complexgrid_indexlist

An index list describing a list of indices or a range of indices.; If the explicit index list ind is defined and has nonzero size, the list is assumed to be an explicit index list.; Otherwise it is assumed to be a range of indices.; A single index can either be defined by using an explicit list with a single entry or as a range with identical; start and end index.

member	type	description
range	vecint_type (7.9.8.1.19)	Defines an index range enumerating from range[1] to range[2] (with both range[1] and range[2] included). If additionally a third value range(3) is given, it is used as a stride. If it is omitted, a stride of 1 is assumed. Vector(3)
ind	vecint_type (7.9.8.1.19)	An explicit list of indices. If this member is defined and has nonzero size, the list is assumed to be explicit. Vector(length of explicit index list)

Type of: complexgrid_objectlist:indset (4217)

7.9.8.1.113 complexgrid_metric

Metric information for grid objects

member	type	description
measure(:)	complexgrid_scalar (7.9.8.1.115)	Measure of object, i.e. physical size (length for 1d, area for 2d, volume for 3d objects). [m^dim].; Use this field to store measures of implicitly defined grid objects.; Array of structures (number of subgrids this information is stored on)
g11(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g11. Array of structures (number of subgrids this information is stored on)
g12(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g12. Array of structures (number of subgrids this information is stored on)
g13(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g13. Array of structures (number of subgrids this information is stored on)
g22(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g22. Array of structures (number of subgrids this information is stored on)
g23(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g23. Array of structures (number of subgrids this information is stored on)
g33(:)	complexgrid_scalar (7.9.8.1.115)	Metric coefficients g33. Array of structures (number of subgrids this information is stored on)
jacobian(:)	complexgrid_scalar (7.9.8.1.115)	Jacobian. Array of structures (number of subgrids this information is stored on)

Type of: complexgrid:metric (4213)

7.9.8.1.114 complexgrid_objectlist

A list of grid objects with a common class, either in explicit of implicit form.; The list is explicit if the matrix ind is given and has nonzero size. In this case the index tuples are listed in ind.; Otherwise the list is implicit and the index tuples are defined by a list of index lists stored in indset.

member	type	description
cls	vecint_type (7.9.8.1.19)	Class tuple of the grid objects in this object list. Vector (number of grid spaces)
indset(:)	complexgrid_indexlist (7.9.8.1.112)	Implicit list of the object indices.; Array of structures (number of grid spaces = length of index tuple). Every index of the index tuple is described by an index set, which defines either a list of index values or a range of index values.
ind	matint_type (7.9.8.1.16)	Explicit list of index tuples. Matrix (number of objects, number of spaces in grid).; First dimension: object index, second dimension: index tuple/space index.; If this field is defined and has nonzero size, the object list is understood to be explicit.

Type of: complexgrid_subgrid:list (4223)

7.9.8.1.115 complexgrid_scalar

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.8.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.8.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.8.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.8.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: complexgrid_geo_global:geo_matrix (4214) I complexgrid_geo_global:measure (4214) I complexgrid_metric:g11 (4216) I complexgrid_metric:g12 (4216) I complexgrid_metric:g13 (4216) I complexgrid_metric:g22 (4216) I complexgrid_metric:g23 (4216) I complexgrid_metric:g33 (4216) I complexgrid_metric:jacobian (4216) I complexgrid_metric:measure (4216) I complexgrid_vector:comp (4224) I complexgrid_vector_simplestruct:comp (4225) I edge_fluid_scalar:bndvalue (4308) I edge_fluid_scalar:source (4308) I edge_fluid_scalar:value (4308) I edge_fluid_scalar_simple (4309) I edge_fluid_scalar_simplestruct:source (4309) I edge_fluid_scalar_simplestruct:value (4309) I edge_kinetic_distribution

(4314) I edge_kinetic_distribution:source (4314) I edge_kinetic_distribution:value (4314) I f_expansion:values (4330) I source_rate:value (4536) I wall_unitsComplexType:eta (4620) I wall_unitsComplexType:permeability (4620)

7.9.8.1.116 complexgrid_scalar_cplx

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.8.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	veccplx_type (7.9.8.1.17)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Complex Vector(nobjects_subgrid). First dimension: object index.
vector	matcplx_type (7.9.8.1.14)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Complex matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dcplx_type (7.9.8.1.6)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d complex array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

Type of: e_components:b_binorm (4304) I e_components:b_norm (4304) I e_components:b_para (4304) I e_components:e_binorm (4304) I e_components:e_minus (4304) I e_components:e_norm (4304) I e_components:e_para (4304) I e_components:e_plus (4304) I e_components:k_perp (4304)

7.9.8.1.117 complexgrid_scalar_int

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as arrays of structure; FIXME: add non-timedependent element "label" of type string

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this scalar quantity is associated with.
subgrid	integer (7.9.8.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecint_type (7.9.8.1.19)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matint_type (7.9.8.1.16)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dint_type (7.9.8.1.8)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.8.1.118 complexgrid_scalar_simplestruct

A quantity stored on a grid. The data is given either as a vector of scalars, vectors or matrices.; Note that the vector and matrix storage methods are not meant for multidimensional data, but; for complex data representations with multiple degrees of freedom.; To be used as a simple structure; FIXME: add non-timedependent element "label" of type string

member	type	description
subgrid	integer (7.9.8.1.3)	Index of the subgrid (as stored in grid.subgrids) the data is stored on.
scalar	vecflt_type (7.9.8.1.18)	Scalar representation of data. One scalar entry is stored per object in the subgrid.; The order is implicitly defined by the subgrid.; Float Vector(nobjects_subgrid). First dimension: object index.
vector	matflt_type (7.9.8.1.15)	Vector representation of data. One vector is stored per object in the subgrid. The order is implicitly defined by the subgrid.; Float matrix(nobjects_subgrid, ndata).First dimension: object index, second dimension: index of data vector.
matrix	array3dflt_type (7.9.8.1.7)	Matrix representation of data. One matrix is stored per object in the subgrid. The order is implicitly defined by the subgrid.; 3d float array(nobjects_subgrid,ndata1,ndata2). First dimension: object index, second dimension: matrix row, third dimension: matrix column.

7.9.8.1.119 complexgrid_space

Description of a grid space

member	type	description
geotype	vecint_type (7.9.8.1.19)	Type of space geometry (id flags). Flags defining how the geometry (objects.geo) fields associated with; space objects are to be interpreted. Array (number of geometries defined for this space),; first dimension: geometry index. A flag value of GRID_UNDEFINED=0 indicates the standard interpretation for; the given coordinates.
geotypeid	vecstring_type (7.9.8.1.20)	Type of space geometries (id string). See geotype.
coordtype	matint_type (7.9.8.1.16)	Type of coordinates describing the physical space. Vector (number of space dimensions); The size of coordtype defines the dimension of the space.; For predefined integer constants for standard coordinates see; the documentation of the grid service library.
objects(:)	objects (7.9.8.1.328)	Definition of the space objects.; Array of structures (dimension of highest-dimensional objects).; First dimension: dimension of the objects (1=nodes, 2=edges, 3=faces, 4=cells/volumes, ...)
xpoints	vecint_type (7.9.8.1.19)	List of indices of all nodes which are x-points. Vector (number of x-points)

Type of: complexgrid:spaces (4213)

7.9.8.1.120 complexgrid_subgrid

Subgrid definition. A subgrid is a list of grid objects, given as a list of explict or implicit object lists.

member	type	description
id	string (7.9.8.1.4)	ID string (name) of the subgrid.
list(:)	complexgrid_objectlist (7.9.8.1.114)	List of object lists. Array of structures (number of object lists).

Type of: complexgrid:subgrids (4213)

7.9.8.1.121 complexgrid_vector

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure.

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this vector quantity is associated with.
label	string (7.9.8.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.8.1.115)	Components of the vector. Array of structures (number of vector components). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.8.1.19)	Alignment flag for vector components. Integer vector (number of vector components).
alignid	vecstring_type (7.9.8.1.20)	Alignment id for vector components. String vector (number of vector components).
basis	integer (7.9.8.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.

Type of: complexgrid:bases (4213) I edge_fluid:b (4307) I edge_fluid_scalar:bndflux (4308) I edge_fluid_scalar:flux (4308) I edge_fluid_scalar_simplestruct:bndflux (4309) I edge_fluid_scalar_simplestruct:flux (4309) I edge_kinetic_distribution (4314) I wall_unitsComplexType:j (4620)

7.9.8.1.122 complexgrid_vector_simplestruct

A vector quantity stored on a grid, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure

member	type	description
label	string (7.9.8.1.4)	Label describing the data
comp(:)	complexgrid_scalar (7.9.8.1.115)	Components of the vector. Vector of griddata(ndim). Time-dependent; FIXME: inherit time-dependence for this element
align	vecint_type (7.9.8.1.19)	Alignment of vector components, numerical flag. Int vector(ndim)
alignid	vecstring_type (7.9.8.1.20)	Alignment of vector components, string description. String vector(ndim)

Type of: edge_fluid_scalar_transpcoeff:d (4310) I edge_fluid_scalar_transpcoeff:v (4310)

7.9.8.1.123 composition

Plasma composition (description of ion species). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.8.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.8.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.8.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.8.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	vecstring_type (7.9.8.1.20)	Label for the ions - note the charge state is not included; String Vector (nion)

Type of: coherentwave:composition (4210) I coredelta:composition (4133) I corefast:composition (4134) I coreneutrals:composition (4136) I coreprof:composition (4137) I coresource:composition (4138) I coretransp:composition (4139) I distribution:composition (4141) I distsource:composition (4142) I neoclassic:composition (4159) I sawteeth:composition (4168)

7.9.8.1.124 composition_neutrals

Description of neutrals species

member	type	description
atomlist(:)	coreneutrals_atomlist (7.9.8.1.149)	List of the atoms that enter the composition of the neutral species. Vector(natm)
neutral(:)	composition_neutralscomp (7.9.8.1.126)	List of neutrals. Vector(nneut)

Type of: coreneutrals:neutcompo (4136)

7.9.8.1.125 composition_neutrals_neutcomp

Array of components to the atom or molecule. Vector (ncomp)

member	type	description
nucindex	integer (7.9.8.1.3)	Index into list of nuclei; int
multiplicity	integer (7.9.8.1.3)	Multiplicity of the atom; int

Type of: composition_neutralscomp:neutcomp (4229)

7.9.8.1.126 composition_neutralscomp

Array of neutrals.

member	type	description
neutcomp(:)	composition_neutrals_neutcomp (7.9.8.1.125)	Array of components to the atom or molecule. Vector (ncomp)
type(:)	identifier (7.9.8.1.263)	Type of neutral, in terms of energy : 0=cold, 1=thermal, 2= fast, 3=NBI. Vector (ntype) of identifiers
label	string (7.9.8.1.4)	String identifying the atom or molecule (e.g. D2, DT, CD4, ...)

Type of: composition_neutrals:neutral (4227) I compositions_type:neutralscomp (4230)

7.9.8.1.127 compositions_type

Generic declaration of Plasma composition for a simulation

member	type	description
nuclei(:)	nuclei (7.9.8.1.327)	Array of nuclei considered.
ions(:)	ions (7.9.8.1.268)	Array of main plasma ions.
impurities(:)	impurities (7.9.8.1.265)	Array of impurities.
neutralscomp(:)	composition_neutralscomp (7.9.8.1.126)	Array of neutrals.
edgespecies(:)	edgespecies (7.9.8.1.213)	Array of edge species.

member	type	description
signature	identifier (7.9.8.1.263)	Identifier for species choices. The goal of this is to uniquely capture the species blocks so that if the signatures are the same then the species blocks will also be the same.

Type of: coherentwave:compositions (4210) I compositionc:compositions (4132) I coredelta:compositions (4133) I corefast:compositions (4134) I coreimpur:compositions (4135) I coreneutrals:compositions (4136) I coreprof:compositions (4137) I coresource:compositions (4138) I coretransp:compositions (4139) I distribution:compositions (4141) I distsource:compositions (4142) I edge:compositions (4144) I neoclassic:compositions (4159) I pellets:compositions (4162) I wall:compositions (4176)

7.9.8.1.128 compound_desc

Chemical compounds (e.g. solid tungsten, WC, CFC, ...) possibly present in the wall. Array of structure (number of compounds)

member	type	description
label	string (7.9.8.1.4)	Compound name/label
stochiometry	vecflt_type (7.9.8.1.18)	Fractional composition of the compound. Float vector, dimensions: 1. element number (numbering as in wall/elements array)
density	float (7.9.8.1.2)	Compound density (molecules/m^3)
heat_cap	float (7.9.8.1.2)	Specific heat capacity [J/(eV kg)]
heat_cond	vecflt_type (7.9.8.1.18)	Thermal conductivity [W/(m eV)]
surf_recrate	matflt_type (7.9.8.1.15)	Recombination rate on surface (only for pure elements, not compounds) [molecules*m^2/s]; Dimensions: index 1: first recombining element, index 2: second recombining element (numbering as in wall/elements array)

Type of: wall:compounds (4176)

7.9.8.1.129 coord_sys

flux surface coordinate system on a square grid of flux and angle

member	type	description
grid_type	string (7.9.8.1.4)	Type of coordinate system
grid	reggrid (7.9.8.1.382)	Regular grid definition; Time-dependent
jacobian	matflt_type (7.9.8.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2)
g_11	matflt_type (7.9.8.1.15)	metric coefficients g_11; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_12	matflt_type (7.9.8.1.15)	metric coefficients g_12; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_13	matflt_type (7.9.8.1.15)	metric coefficients g_13; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_22	matflt_type (7.9.8.1.15)	metric coefficients g_22; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_23	matflt_type (7.9.8.1.15)	metric coefficients g_23; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
g_33	matflt_type (7.9.8.1.15)	metric coefficients g_33; g_ij=g^ij are contravariant metric tensor for the grid described by grid_type. Time-dependent; Matrix (ndim1, ndim2)
position	rz2D (7.9.8.1.390)	R and Z position of grid points; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:coord_sys (4146) I mhd_plasma:coord_sys (4396) I mhd_vacuum:coord_sys (4398)

7.9.8.1.130 coordinates

Poloidal and Toroidal coordinates of the center of each hole;

member	type	description
theta	vecflt_type (7.9.8.1.18)	Theta coordinate of holes center; Vector (n_holes)
phi	vecflt_type (7.9.8.1.18)	Toroidal coordinate of holes center; Vector (n_holes)

Type of: holes:coordinates (4365)

7.9.8.1.131 coords

Specification of coordinates in one dimension. Can be either a range of real values or a set of discrete values (if interp_type=0).

member	type	description
coord	vecflt_type (7.9.8.1.18)	Coordinate values. Vector(npoints).
coord_label	vecstring_type (7.9.8.1.20)	String description of discrete coordinate values (if interp_type=0). Vector(npoints). E.g., for spectroscopic lines, the spectroscopic description of the transition.
extrap_type	vecint_type (7.9.8.1.19)	Extrapolation strategy when leaving the domain. Vector(2). Entry 1: behaviour at lower bound, entry 2: behaviour at upper bound.; Possible values: 0=none, report error; 1=boundary value; 2=linear extrapolation;
interp_type	integer (7.9.8.1.3)	Interpolation strategy in this coordinate direction. Integer flag: 0=discrete (no interpolation); 1=linear; ...
label	string (7.9.8.1.4)	Description of coordinate (e.g. "Electron temperature")
unit	string (7.9.8.1.4)	Units of coordinate (e.g. [eV])
transform	integer (7.9.8.1.3)	Coordinate transformation applied to coordinate values stored in coord. Integer flag: 0=none; 1=log10; 2=ln
spacing	integer (7.9.8.1.3)	Flag for specific coordinate spacing (for optimization purposes). Integer flag: 0=undefined; 1=uniform; ...

Type of: tables_coord:coords (4553)

7.9.8.1.132 coredelta_values

Description of the delta term for a given origin

member	type	description
deltaid	identifier (7.9.8.1.263)	Identifier for the origin of the delta terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
delta_psi	vecflt_type (7.9.8.1.18)	Instant change of the poloidal flux [Wb]. Time-dependent. Vector(nrho).
delta_te	vecflt_type (7.9.8.1.18)	Instant change of the electron temperature [eV]. Time-dependent. Vector(nrho).
delta_ti	matflt_type (7.9.8.1.15)	Instant change of the ion temperature [eV]. Time-dependent. Matrix (nrho,nion).
delta_ne	vecflt_type (7.9.8.1.18)	Instant change of the electron density [m^-3]. Time-dependent. Vector(nrho).
delta_ni	matflt_type (7.9.8.1.15)	Instant change of the ion density [m^-3]. Time-dependent. Matrix (nrho,nion).
impurity(:)	coredelta_values_impurity (7.9.8.1.133)	Array(nimp). Time-dependent
delta_vtor	matflt_type (7.9.8.1.15)	Instant change of the toroidal toroidal velocity [m.s^-1]. Time-dependent. Matrix (nrho,nion).
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coredelta:values (4133)

7.9.8.1.133 coredelta_values_impurity

Description of the delta term for an impurity

member	type	description
delta_tz	matflt_type (7.9.8.1.15)	Instant change of the impurity (multiple charge states) temperature [eV]. Time-dependent. Matrix (nrho,nzimp).
delta_nz	matflt_type (7.9.8.1.15)	Instant change of the impurity (multiple charge states) density [m^-3]. Time-dependent. Matrix (nrho,nzimp).

Type of: coredelta_values:impurity (4235)

7.9.8.1.134 corefast_values

Description of the source terms for a given origin

member	type	description
fastid	identifier (7.9.8.1.263)	Identifier for the origin of the non-thermal contributions (see fast_particle_origin_identifier in the Documentation website under Conventions/Enumerated_datatypes). Time-dependent.
filter	fast_thermal_separation_filter (7.9.8.1.228)	Description of how the fast and the thermal particle populations were separated. Time-dependent.
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point). Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.8.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Vector (nrho). Time-dependent.
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]. Vector (nrho). Time-dependent.
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]. Vector (nrho). Time-dependent.
j	vecflt_type (7.9.8.1.18)	Non thermal current, = average(j.B) / B0, where B0 = corefast/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.8.1.18)	Non-thermal induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
ni	matflt_type (7.9.8.1.15)	Non-thermal ion density [m^-3]. Matrix(nrho,nions). Time-dependent.
ne	vecflt_type (7.9.8.1.18)	Non-thermal electron density [m^-3]. Vector(nrho). Time-dependent.
nz	matflt_type (7.9.8.1.15)	Non-thermal impurity density [m^-3]. Matrix(nrho,nimpur). Time-dependent.
pi	matflt_type (7.9.8.1.15)	Non-thermal ion pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe	vecflt_type (7.9.8.1.18)	Non-thermal electron pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz	matflt_type (7.9.8.1.15)	Non-thermal impurity total pressure; the flux surface average of the m*v^2/3 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
pi_para	matflt_type (7.9.8.1.15)	Non-thermal ion parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nions). Time-dependent.
pe_para	vecflt_type (7.9.8.1.18)	Non-thermal electron parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Vector(nrho). Time-dependent.
pz_para	matflt_type (7.9.8.1.15)	Non-thermal impurity parallel pressure; the flux surface average of the m*v_parallel^2 moment of the fast particle distribution function [Pa]. Matrix(nrho,nimpur). Time-dependent.
ui	matflt_type (7.9.8.1.15)	Non-thermal ion toroidal velocity [m.s^-1]. Matrix(nrho,nions). Time-dependent.
uz	matflt_type (7.9.8.1.15)	Non-thermal impurity toroidal velocity [m.s^-1]. Matrix(nrho,nimpur). Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: corefast:values (4134)

7.9.8.1.135 corefield

Structure for a main field of core transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.8.1.18)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.8.1.18)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Vector (nrho)
ddt	vecflt_type (7.9.8.1.18)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Vector (nrho)
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.8.1.3)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundaryel (7.9.8.1.95)	Boundary condition for the transport equation. Time-dependent.
source_term	sourceel (7.9.8.1.435)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransel (7.9.8.1.154)	Total transport coefficients. Time-dependent.
flux	fluxel (7.9.8.1.233)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	vecflt_type (7.9.8.1.18)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Vector (nrho)
time_deriv	vecflt_type (7.9.8.1.18)	Integral of the time derivative term of the transport equation. Time-dependent. Vector (nrho)
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coreprof:ne (4137) I coreprof:te (4137)

7.9.8.1.136 corefieldion

Structure for an ion field of core transport equations; Time-dependent;

member	type	description
value	matflt_type (7.9.8.1.15)	Signal value; Time-dependent; Matrix (nrho,nion)
ddrho	matflt_type (7.9.8.1.15)	Radial derivative (dvalue/drho_tor) [signal_value_unit.m^-1]; Time-dependent; Matrix (nrho,nion)
d2drho2	matflt_type (7.9.8.1.15)	Second order radial derivative (d2value/drho_tor^2) [signal_value_unit.m^-2]; Time-dependent; Matrix (nrho,nion)
ddt	matflt_type (7.9.8.1.15)	Time derivative (dvalue/dtime) [signal_value_unit.s^-1]; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)
flag	vecint_type (7.9.8.1.19)	Flag describing how the profile has been processed : 0-not calculated 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Vector(nion)
boundary	boundaryion (7.9.8.1.97)	Boundary condition for the transport equation
source_term	sourceion (7.9.8.1.437)	Total source term for the transport equation. Time-dependent.
transp_coef	coretransion (7.9.8.1.156)	Total transport coefficients. Time-dependent.
flux	fluxion (7.9.8.1.235)	Fluxes of the quantity, two definitions. Time-dependent.
flux_dv_surf	matflt_type (7.9.8.1.15)	Net flux through the magnetic surface, i.e. integral over the magnetic surface area of flux_dv. Time-dependent; Matrix(nrho,nion)
time_deriv	matflt_type (7.9.8.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Matrix (nrho,nion)
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coreprof:ni (4137) I coreprof:ti (4137) I coreprof:vtor (4137)

7.9.8.1.137 corefieldneutral

Structure for a main field of core neutral transport equations; Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.8.1.18)	Net neutral flux through the magnetic surface, positive values correspond to the direction from the center to the edge [s^-1]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.8.1.94)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:n0 (4253)

7.9.8.1.138 corefieldneutrale

Structure for a main field of core neutral transport equations, (Temperature, with flux as energy); Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Array1D(nrho). Time-dependent
flux	vecflt_type (7.9.8.1.18)	Net flux of the kinetic energy through the magnetic surface (3/2*E*n*V), positive values correspond to the direction from the center to the edge [W]. Array1D(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.8.1.94)	Boundary condition for the transport equation. Time-dependent.

Type of: coreneutrals_neutraltype:t0 (4253)

7.9.8.1.139 corefieldneutralv

Structure for a main field of core neutral transport equations (without flux variable); Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Vector(nrho). Time-dependent;
boundary	boundary_neutrals (7.9.8.1.94)	Boundary condition for the transport equation. Time-dependent.

Type of: corefieldneutralv0:poloidal (4243) I corefieldneutralv0:radial (4243) I corefieldneutralv0:toroidal (4243)

7.9.8.1.140 corefieldneutralv0

Neutral velocity

member	type	description
toroidal	corefieldneutralv (7.9.8.1.139)	Neutral velocity in the toroidal direction [m.s^-1]. Positive is anti-clockwise when viewed from above. Time-dependent;
poloidal	corefieldneutralv (7.9.8.1.139)	Velocity of neutrals in the poloidal direction. 0 is directed towards low field side, pi is towards high field side. Positive is anti-clockwise when viewed with low field side at the right. [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;
radial	corefieldneutralv (7.9.8.1.139)	Neutral velocity in the radial direction (perpendicular to the magnetic surface), positive is from the centre to the edge [m.s^-1]. Array3D(nrho,nneut,max_ntype). Time-dependent;

Type of: coreneutrals_neutraltype:v0 (4253)

7.9.8.1.141 coreimpurdiag_sum_radiation

member	type	description
line_rad	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS
brem_radrec	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS
sum	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS

Type of: coreimpurediag_sum:radiation (4247)

7.9.8.1.142 coreimpurediag_energy

member	type	description
ionization	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS
recombin	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS
sum	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS

Type of: coreimpurediag_type:energy (4249)

7.9.8.1.143 coreimpurediag_radiation

member	type	description
line_rad	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS
brem_radrec	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS
sum	coreimpurediagprof_type (7.9.8.1.147)	NO DOCS

Type of: coreimpurediag_type:radiation (4249)

7.9.8.1.144 coreimpurediag_sum

member	type	description
radiation	coreimpurdiag_sum_radiation (7.9.8.1.141)	NO DOCS
energy	coreimpurediag_sum_energy (7.9.8.1.145)	NO DOCS

Type of: coreimpur:diagnosticsum (4135)

7.9.8.1.145 coreimpurediag_sum_energy

member	type	description
ionization	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS
recombin	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS
sum	coreimpurediagsum_type (7.9.8.1.148)	NO DOCS

Type of: coreimpurediag_sum:energy (4247)

7.9.8.1.146 coreimpurediag_type

member	type	description
radiation	coreimpurediag_radiation (7.9.8.1.143)	NO DOCS
energy	coreimpurediag_energy (7.9.8.1.142)	NO DOCS

Type of: coreimpur:diagnostic (4135) I impurity_type:diagnostic (4369)

7.9.8.1.147 coreimpurediagprof_type

member	type	description
profile	matflt_type (7.9.8.1.15)	Profile of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)
integral	matflt_type (7.9.8.1.15)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array2D (nrho,nzimp or nimp)

Type of: coreimpurediag_energy:ionization (4245) I coreimpurediag_energy:recombin (4245) I coreimpurediag_energy:sum (4245) I coreimpurediag_radiation:brem_radrec (4246) I coreimpurediag_radiation:line_rad (4246) I coreimpurediag_radiation:sum (4246)

7.9.8.1.148 coreimpurediagsum_type

member	type	description
profile	vecflt_type (7.9.8.1.18)	Profile of the radiation or energy sources. Time-dependent. Array1D (nrho)
integral	vecflt_type (7.9.8.1.18)	Running integral over nrho of the radiation or energy sources. Time-dependent. Array1D (nrho)

Type of: coreimpurdiag_sum_radiation:brem_radrec (4244) I coreimpurdiag_sum_radiation:line_rad (4244) I coreimpurdiag_sum_radiation:sum (4244) I coreimpurediag_sum_energy:ionization (4248) I coreimpurediag_sum_energy:recom (4248) I coreimpurediag_sum_energy:sum (4248)

7.9.8.1.149 coreneutrals_atomlist

List of the atoms that enter the composition of the neutral species. Vector(natm)

member	type	description
amn	float (7.9.8.1.2)	Atomic mass number; Float
zn	float (7.9.8.1.2)	Nuclear charge; Float
ionimptype	identifier (7.9.8.1.263)	Identifier whether ion in coreprof or impurity in coreimpur.
ionimpindex	integer (7.9.8.1.3)	Index in composition or desc_impur of the corresponding ion or impurity.

Type of: composition_neutrals:atomlist (4227)

7.9.8.1.150 coreneutrals_neutraltype

Array (ntype) over neutral types.

member	type	description
n0	corefieldneutral (7.9.8.1.137)	Neutral density [m^-3]. Time-dependent;
t0	corefieldneutrale (7.9.8.1.138)	Neutral temperature [eV]. Time-dependent;
v0	corefieldneutralv0 (7.9.8.1.140)	Neutral velocity [m.s^-1]. Time-dependent;

Type of: neutral_complex_type:neutraltype (4421)

7.9.8.1.151 coreprofile

Structure for core plasma profile; Time-dependent

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Time-dependent; Vector (nrho)
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: profiles1d:bpol (4470) I profiles1d:dpedt (4470) I profiles1d:dpi_totdt (4470) I profiles1d:dvprimedt (4470) I profiles1d:e_b (4470) I profiles1d:eparallel (4470) I profiles1d:jni (4470) I profiles1d:joh (4470) I profiles1d:jphi (4470) I profiles1d:jtot (4470) I profiles1d:pe (4470) I profiles1d:pi_tot (4470) I profiles1d:pr_parallel (4470) I profiles1d:pr_perp (4470) I profiles1d:pr_th (4470) I profiles1d:q (4470) I profiles1d:qei (4470) I profiles1d:shear (4470) I profiles1d:sigmapar (4470) I profiles1d:vloop (4470) I profiles1d:zeff (4470) I psi:sigma_par (4472)

7.9.8.1.152 coreprofion

Structure for core plasma ion profile; Time-dependent

member	type	description
value	matflt_type (7.9.8.1.15)	Signal value; Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: profiles1d:mtor (4470) I profiles1d:ns (4470) I profiles1d:pi (4470) I profiles1d:vpol (4470) I profiles1d:wtor (4470)

7.9.8.1.153 coresource_values

Description of the source terms for a given origin

member	type	description
sourceid	identifier (7.9.8.1.263)	Identifier for the origin of the source terms (see conventions in the ITM website)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
j	vecflt_type (7.9.8.1.18)	Parallel current source for psi transport equation, = average(j.B) / B0, where B0 = coresource/toroid_field/b0 [A.m^-2]. Vector(nrho). Time-dependent.
sigma	vecflt_type (7.9.8.1.18)	Induced parallel conductivity [ohm^-1.m^-1]. EXACT DEFINITION PENDING. Vector(nrho). Time-dependent.
si	source_ion (7.9.8.1.432)	Particle source for ion density transport equation [m^-3.s^-1]. Time-dependent.
se	source_vec (7.9.8.1.434)	Particle source for electron density transport equation [m^-3.s^-1]. Time-dependent.
sz(:)	source_imp (7.9.8.1.431)	Particle source for impurity density transport equation [m^-3.s^-1]. Vector(nimpur). Time-dependent.
qi	source_ion (7.9.8.1.432)	Heat source for ion heat transport equations [W.m^-3]. Time-dependent.
qe	source_vec (7.9.8.1.434)	Heat source for electron heat transport equation [W.m^-3]. Time-dependent.
qz(:)	source_imp (7.9.8.1.431)	Heat source for impurity heat transport equations [W.m^-3]. Vector(nimpur). Time-dependent.
ui	source_ion (7.9.8.1.432)	Toroidal torque on individual ion species; for toroidal momentum transport equation [kg.m^-1.s^-2]. Time-dependent.

member	type	description
ujxb	source_vec (7.9.8.1.434)	Toroidal JxB torque on bulk plasma; for toroidal momentum transport equation [kg.m^-1.s^-2]. Here J is the return current from fast ion radial currents Jfast=-J. Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coresource:values (4138)

7.9.8.1.154 coretransel

Structure for the transport coefficients for the transport equation (electrons). Time-dependent;

member	type	description
diff	vecflt_type (7.9.8.1.18)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Vector (nrho)
vconv	vecflt_type (7.9.8.1.18)	Convection coefficient [m.s^-1]. Time-dependent; Vector (nrho)
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:transp_coef (4238)

7.9.8.1.155 coretransimp

Structure for the transport coefficients for the transport equation (impurities). Time-dependent;

member	type	description
diff	matflt_type (7.9.8.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Array2D(nrho,nzimp)
vconv	matflt_type (7.9.8.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Array2D (nrho,nzimp)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:transp_coef (4369)

7.9.8.1.156 coretransion

Structure for the transport coefficients for the transport equation (ions). Time-dependent;

member	type	description
diff	matflt_type (7.9.8.1.15)	Diffusion coefficient [m^2.s^-1]. Time-dependent; Matrix (nrho,nion)
vconv	matflt_type (7.9.8.1.15)	Convection coefficient [m.s^-1]. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:transp_coef (4239)

7.9.8.1.157 coretransp_values

Description of transport term coming from various origins. Array of structure (ntransp)

member	type	description
transportid	identifier (7.9.8.1.263)	Identifier for the origin of the transport terms (see conventions in the ITM website)
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (nrho)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (nrho)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (nrho)
sigma	vecflt_type (7.9.8.1.18)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent. Vector(nrho).
ni_transp	ni_transp (7.9.8.1.320)	Transport coefficients for ion density equation. Time-dependent.
ne_transp	ne_transp (7.9.8.1.315)	Transport coefficients for electron density equation. Time-dependent.
nz_transp(:)	transcoefimp (7.9.8.1.490)	Transport coefficients for impurity (multiple charge state) density equation. Time-dependent.
ti_transp	transcoefion (7.9.8.1.491)	Transport coefficients for ion temperature equation. Time-dependent.
te_transp	transcoefel (7.9.8.1.489)	Transport coefficients for electron temperature equation. Time-dependent.

member	type	description
tz_transp(:)	transcoefimp (7.9.8.1.490)	Transport coefficients for impurity (multiple charge state) temperature equation. Time-dependent.
vtor_transp	transcoefvtor (7.9.8.1.492)	Transport coefficients for toroidal velocity equation. Time-dependent.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coretransp:values (4139)

7.9.8.1.158 current

Description of the IC surface currents on the antenna straps and on passive components.

member	type	description
mpol	vecint_type (7.9.8.1.19)	Poloidal modes, used to describe the spectrum of the antenna current. The poloidal angle is defined from the reference point rz_reference; the angle at a point (R,Z) is given by atan((Z-Zref)/(R-Rref)), where Rref=rz_reference/r and Zref=rz_reference/z. Time-Dependent; Integer(n_poloidal_modes)
ntor	vecint_type (7.9.8.1.19)	Toroidal modes, used to describe the spectrum of the antenna current. Time-Dependent; Integer(n_toroidal_modes)
spectrum	exp1D (7.9.8.1.225)	Spectrum of the total surface current on the antenna strap and passive components expressed in poloidal and toroidal mode [A]. Calculated using a geometrical poloidal angle around the point rz_reference. Time-dependent; exp1D(n_poloidal_modes , n_toroidal_modes)
rz_reference	rz0D (7.9.8.1.386)	Reference point used to define the poloidal angle, e.g. the geometrical centre of the vacuum vessel. Time-dependent; rz0d

Type of: antennaic_setup:current (4183)

7.9.8.1.159 cxmeasure

Measured values

member	type	description
ti	exp1D (7.9.8.1.225)	Ion temperature [eV]. Vector (nchannels)
vtor	exp1D (7.9.8.1.225)	Toroidal velocity [m/s]. Vector (nchannels)
vpol	exp1D (7.9.8.1.225)	Poloidal velocity [m/s]. Vector (nchannels)

Type of: cxdiag:measure (4140)

7.9.8.1.160 cxsetup

diagnostic setup information

member	type	description
amn	vecflt_type (7.9.8.1.18)	Mass of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
zn	vecflt_type (7.9.8.1.18)	Nuclear charge of the emmitting impurity. Varies according to channels since they are spanning different lines of sight; Vector (nchannels)
position	rzphi1Dexp (7.9.8.1.394)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: cxdiag:setup (4140)

7.9.8.1.161 data_release

Stores information about each entry available at this version.

member	type	description
shot	integer (7.9.8.1.3)	Shot number = Mass*100+Nuclear_charge.
run	integer (7.9.8.1.3)	Which run number is the active run number for this version.
description	vecstring_type (7.9.8.1.20)	Possible description of why this version of the data is the current version.

Type of: version_ind:data_release (4611)

7.9.8.1.162 datainfo

Generic information on a data item

member	type	description
dataprovider	string (7.9.8.1.4)	Name of the actual data provider (the person who filled the data)
putdate	string (7.9.8.1.4)	Date at which the data has been put in the DB
source	string (7.9.8.1.4)	Exact reference of the data source (e.g. original reference in the native machine data base)
comment	string (7.9.8.1.4)	Any additional comment
cocos	integer (7.9.8.1.3)	COordinates COnventionS followed by this CPO
id	integer (7.9.8.1.3)	CPO id for checking its provenance in the workflow
isref	integer (7.9.8.1.3)	1 if the data can be found in the present data base entry; 2 if the data can be found in a parent data base entry; 0 if no data consistent with the present entry can be found.
whatref	whatref (7.9.8.1.534)	Structure defining a database entry and the CPO occurrence
putinfo	putinfo (7.9.8.1.370)	Level 2 information describing how to retrieve the actual data for the UAL. Not to be filled/used by the ITM user !

Type of: amns:datainfo (4127) I antennas:datainfo (4128) I bb_shield:datainfo (4129) I bolometer:datainfo (4130) I bremsstrahl:datainfo (4131) I compositionc:datainfo (4132) I coredelta:datainfo (4133) I corefast:datainfo (4134) I coreimpur:datainfo (4135) I coreneutrals:datainfo (4136) I coreprof:datainfo (4137) I coresource:datainfo (4138) I coretransp:datainfo (4139) I cxdiag:datainfo (4140) I distribution:datainfo (4141) I distsource:datainfo (4142) I ecediag:datainfo (4143) I edge:datainfo (4144) I efcc:datainfo (4145) I equilibrium:datainfo (4146) I flush:datainfo (4334) I fusiondiag:datainfo (4147) I halphadiag:datainfo (4148) I heat_sources:datainfo (4149) I ironmodel:datainfo (4151) I langmuirdiag:datainfo (4152) I launchs:datainfo (4153) I lineintegraldiag:datainfo (4385) I lithiumdiag:datainfo (4154) I magdiag:datainfo (4155) I mhd:datainfo (4156) I msediag:datainfo (4157) I nbi:datainfo (4158) I neoclassic:datainfo (4159) I ntm:datainfo (4160) I orbit:datainfo (4161) I pellets:datainfo (4162) I pfsystems:datainfo (4163) I power_conv:datainfo (4165) I reflectomet:datainfo (4166) I rfadiag:datainfo (4167) I sawteeth:datainfo (4168) I scenario:datainfo (4169) I solcurdiag:datainfo (4170) I temporary:datainfo (4171) I toroidfield:datainfo (4173) I tsdiag:datainfo (4174) I turbulence:datainfo (4175) I wall:datainfo (4176) I waves:datainfo (4177)

7.9.8.1.163 desc_coils

Description of the coils

member	type	description
name	string (7.9.8.1.4)	Name of coil.
res	float (7.9.8.1.2)	Coil resistance [Ohm]
nturns	integer (7.9.8.1.3)	number of turns inside the coil
closed	string (7.9.8.1.4)	Identify whether the coil is closed (y) or open (n). For closed coils there is no need to replicate the first r,z,phi point as last point
edges(:)	edges (7.9.8.1.212)	Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

Type of: coil:desc_coils (4211)

7.9.8.1.164 desc_impur

Description of the impurities (list of ion species and possibly different charge states). OBSOLESCENT.

member	type	description
amn	vecflt_type (7.9.8.1.18)	Atomic mass number of the impurity; Vector (nimp)
zn	vecint_type (7.9.8.1.19)	Nuclear charge of the impurity; Vector (nimp)
i_ion	vecint_type (7.9.8.1.19)	Index of the impurity species in the coreprof ion species ordering. Vector (nimp)
nzimp	vecint_type (7.9.8.1.19)	Number of charge states (or bundles) considered for each impurity species. Vector (nimp)
zmin	matint_type (7.9.8.1.16)	Minimum Z of impurity ionisation state bundle. Matrix (nimp,max_nzimp)
zmax	matint_type (7.9.8.1.16)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Matrix (nimp,max_nzimp)
label	vecstring_type (7.9.8.1.20)	Label for the impurities - note that the charge state is not included; String Vector (nimp)

Type of: coredelta:desc_impur (4133) I corefast:desc_impur (4134) I coreimpur:desc_impur (4135) I coreneutrals:desc_impur (4136) I coreprof:desc_impur (4137) I coresource:desc_impur (4138) I coretransp:desc_impur (4139) I neoclassic:desc_impur (4159)

7.9.8.1.165 desc_iron

Description of the iron segments

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of circuit. Array of strings (ncircuit).
id	vecstring_type (7.9.8.1.20)	ID of circuit. Array of strings (ncircuit).
permeability	permeability (7.9.8.1.348)	Permeability model (can be different for each iron segment)
geom_iron	geom_iron (7.9.8.1.255)	Geometry of the iron segments

Type of: ironmodel:desc_iron (4151)

7.9.8.1.166 desc_pfcoils

Description of the coils

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of coil. Array of strings (ncoils)
id	vecstring_type (7.9.8.1.20)	ID of coil. Array of strings (ncoils)
res	vecflt_type (7.9.8.1.18)	Coil resistance [Ohm]; Vector (ncoils)
emax	vecflt_type (7.9.8.1.18)	Maximum Energy to be dissipated in coils [J]; Vector (ncoils)
structure_cs	structure_cs (7.9.8.1.445)	Detailed description of the coil structure, for coils that are part of the central solenoid.
pol_flux_cs	float (7.9.8.1.2)	Maximum poloidal flux available in the Central Solenoid for a plasma pulse [Wb].
nelement	vecint_type (7.9.8.1.19)	Number of elements used to describe a coil; Vector (ncoils)
pfelement	pfelement (7.9.8.1.351)	Axisymmetric conductor description

Type of: pfcoils:desc_pfcoils (4453)

7.9.8.1.167 desc_supply

Description of the power supplies

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of the supply; Array of strings (nsupplies)
id	vecstring_type (7.9.8.1.20)	ID of the supply; Array of strings (nsupplies)
type	vecstring_type (7.9.8.1.20)	Type of supply; Array of strings (nsupplies)
delay	vecflt_type (7.9.8.1.18)	Pure delay in the supply [s]; Vector (nsupplies)
filter	filter (7.9.8.1.229)	Laplace proper filter
imin	vecflt_type (7.9.8.1.18)	Minimum current [A]; Vector (nsupplies)
imax	vecflt_type (7.9.8.1.18)	Maximum current [A]; Vector (nsupplies)
res	vecflt_type (7.9.8.1.18)	Supply internal resistance [Ohm]; Vector (nsupplies)
umin	vecflt_type (7.9.8.1.18)	Minimum voltage [V]; Vector (nsupplies)
umax	vecflt_type (7.9.8.1.18)	Maximum voltage [V]; Vector (nsupplies)
emax	vecflt_type (7.9.8.1.18)	Maximum Energy to be dissipated in supply [J]; Vector (nsupplies)

Type of: pfsupplies:desc_supply (4459)

7.9.8.1.168 diag_func

Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

member	type	description
description	string (7.9.8.1.4)	Short description of the detector with reference to the number of cells (ncells).
transf_mat	matflt_type (7.9.8.1.15)	Transfer matrix of the detector. Each l.o.s. might have a dedicated detector response function and energy resolution (and number of cells). Time-independent. Matrix (ncells,nenergy)

Type of: fusiondiag_detect_ct_energy:diag_func (4350)

7.9.8.1.169 dist_collisional_transfer_0d

Collisional exchange with the impurities. The ion indexing should match the one in distribution/compositions/impurities/z
Time-dependent; Vector(nzimp)

member	type	description
power_th	float (7.9.8.1.2)	Collisional power to the thermal particle population [W]; Time-dependent; Scalar
power_fast	float (7.9.8.1.2)	Collisional power to the fast particle population [W]; Time-dependent; Scalar
torque_th	float (7.9.8.1.2)	Collisional toroidal torque to the thermal particle population [N.m]; Time-dependent; Scalar
torque_fast	float (7.9.8.1.2)	Collisional toroidal torque to the fast particle population [N.m]; Time-dependent; Scalar

Type of: dist_global_param:collisions_e (4281) I dist_global_param:collisions_i (4281) I dist_global_param_collisions_z:charge_s
(4282)

7.9.8.1.170 dist_collisional_transfer_1d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	vecflt_type (7.9.8.1.18)	Flux surface averaged collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Vector(npsi)
power_fast	vecflt_type (7.9.8.1.18)	Flux surface averaged collisional power density to the fast particle population [W.m^-3]; Time-dependent; Vector(npsi)
torque_th	vecflt_type (7.9.8.1.18)	Flux surface averaged collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Vector(npsi)
torque_fast	vecflt_type (7.9.8.1.18)	Flux surface averaged collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Vector(npsi)

Type of: dist_profile_values_1d:collisions_e (4284) I dist_profile_values_1d:collisions_i (4284) I dist_profiles_1d:collisions_e (4287) I dist_profiles_1d:collisions_i (4287) I dist_profiles_1d_collisions_z:charge_state (4288)

7.9.8.1.171 dist_collisional_transfer_2d

Collisional exchange from the background electrons to the distribution function. Time-dependent

member	type	description
power_th	matflt_type (7.9.8.1.15)	Collisional power density to the thermal particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
power_fast	matflt_type (7.9.8.1.15)	Collisional power density to the fast particle population [W.m^-3]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_th	matflt_type (7.9.8.1.15)	Collisional toroidal torque density to the thermal particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)
torque_fast	matflt_type (7.9.8.1.15)	Collisional toroidal torque density to the fast particle population [N.m^-2]; Time-dependent; Matrix(n_coord1,n_coord2)

Type of: dist_profile_values_2d:collisions_e (4285) I dist_profile_values_2d:collisions_i (4285) I dist_profiles2d_collisions_z:char
(4286) I dist_profiles_2d:collisions_e (4289) I dist_profiles_2d:collisions_i (4289)

7.9.8.1.172 dist_distrivec_distfunc_fexp_param

Parameters used to defined the grid coordinates. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.8.1.221)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent
temperature	vecflt_type (7.9.8.1.18)	Reference temperature profile (eV); on the grid in /distsource/source/profiles_1d/rho_tor. Used to define the local thermal energy and the thermal velocity. Time-dependent; Vector(npsi)

Type of: f_expansion:parameters (4330)

7.9.8.1.173 dist_ff

Distribution function of e.g. ions, or electrons; the density of particles in the velocity space, the real space and spin state. The grid is split into topological regions, which could overlap in coordiante space (i.e. one coordinated can correspond to more than one orbit). The number of topological region is given by nregion_topo. For nregion_topo=2 the topology should be that of a high aspect ratio tokamak with two topological regions, where the passing orbits moving counter to the plasma current are stored in region_topo=2 and all other orbits are stored in nregion_topo=1. For nregion_topo ¿ 2 (e.g. for spherical tokamaks) the topology should be described in the field topology.

member	type	description
grid_info	dist_grid_info (7.9.8.1.180)	Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.
topo_regions(:)	topo_regions (7.9.8.1.486)	List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

Type of: dist_func:f_expan_topo (4277)

7.9.8.1.174 dist_func

Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent

member	type	description
is_delta_f	integer (7.9.8.1.3)	If is_delta_f=1, then the distribution represents the deviation from a Maxwellian; is_delta_f=0, then the distribution represents all particles, i.e. the full-f solution. Time-dependent
markers	weighted_markers (7.9.8.1.533)	Distribution represented by a set of markers (test particles). Time-dependent
f_expan_topo(:)	dist_ff (7.9.8.1.173)	TO BE REMOVED. KEPT TEMPORARILY AS AN ALTERNATIVE TO f_expansion. [Distribution function, f, expanded into a vector of successive approximations (topology-based formulation, without the grid-cpo). The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th elemnet in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)]. Time-dependent
f_expansion(:)	f_expansion (7.9.8.1.227)	Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

Type of: distri_vec:dist_func (4297)

7.9.8.1.175 dist_geometry_0d

Geometrical constants

member	type	description
mag_axis	rz0D (7.9.8.1.386)	Position of the magnetic axis [m]. Time-dependent; Scalar
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor and to measure the current drive. Time-dependent; Scalar

Type of: dist_global_param:geometry (4281)

7.9.8.1.176 dist_geometry_1d

Grids and metric information; including rho_tor, psi, area and volume. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.8.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed by the flux surface [m^3]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)

Type of: dist_profiles_1d:geometry (4287)

7.9.8.1.177 dist_geometry_2d

Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent

member	type	description
coord_type	integer (7.9.8.1.3)	0: Rectangular grid in the (R,Z) coordinates; 1: Rectangular grid in the (rho_tor,theta_geom) coordinates; 2: Rectangular grid in the (rho_tor,theta_straight) coordinates.
r	matflt_type (7.9.8.1.15)	Major radius coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
z	matflt_type (7.9.8.1.15)	Vertical coordinate [m]; Time-dependent; Matrix (n_coord1,n_coord2)
rho_tor	matflt_type (7.9.8.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (n_coord1,n_coord2)
psi	matflt_type (7.9.8.1.15)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (n_coord1,n_coord2)
theta_geom	matflt_type (7.9.8.1.15)	Geometrical poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)
theta_strt	matflt_type (7.9.8.1.15)	Straight field line poloidal angle [rad]; Time-dependent; Matrix (n_coord1,n_coord2)

Type of: dist_profiles_2d:geometry (4289)

7.9.8.1.178 dist_global_param

Global parameters; spatial constants, volume integrated quantities and quantities averaged over the cross-sectional area. Here the dimensions used refer to: nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin.

member	type	description
geometry	dist_geometry_0d (7.9.8.1.175)	Geometrical constants
state	dist_state_0d (7.9.8.1.190)	Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent
collisions_e	dist_collisional_transfer_0d (7.9.8.1.169)	Collisional exchange with the electrons. Time-dependent
collisions_i(:)	dist_collisional_transfer_0d (7.9.8.1.169)	Collisional exchange with each ion species. The ion indexing should match the one in /distribution/compositions/ions.Time-dependent; Vector(nion)
collisions_z(:)	dist_global_param_collisions_z (7.9.8.1.179)	Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/impurities. Time-dependent; Vector(nimpur)
sources(:)	dist_sources_0d (7.9.8.1.187)	Vector of volume integrated sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for ./source/type. Time-dependent; Scalar

Type of: distri_vec:global_param (4297)

7.9.8.1.179 dist_global_param_collisions_z

Collisional exchange with each impurity species. The ion indexing should match the one in /distribution/compositions/imp
Time-dependent

member	type	description
charge_state(:)	dist_collisional_transfer_0d (7.9.8.1.169)	Collisional exchange with the impurities. The ion indexing should match the one in distribution/compositions/impurities/zmin. Time-dependent; Vector(nzimp)

Type of: dist_global_param:collisions_z (4281)

7.9.8.1.180 dist_grid_info

Specification of grids used in topo_regions. Grid coordinates could either be invariants of motion, or information at single point along orbit, e.g. xi and s for grid_coord=3. This point should always be on a so-called omnigenous surface (a generalised equitorial plane); grad(psi) x grad(B) = 0. All closed orbits cross omnigenous surfaces at least two times. The omnigenous surfaces are described in omnigen_surf.

member	type	description
grid_type	integer (7.9.8.1.3)	Type of grid: 1=unstructured grid; 2=structured non-rectangular grid, here ndim11=ndim12=ndim13, ndim21=ndim22=ndim23, ndim31=ndim32=ndim33; 3=rectangular grid, where grid coordinates are stored in the vectors dim1(1:ndim1,1,1), dim2(1,1:ndim2,1), dim3(1,1,1:ndim3)
ngriddim	integer (7.9.8.1.3)	Number of grid dimension. For ngriddim=2 the grid is specified by dim1 and dim2 only, while dim3, dim4, dim5, dim6 can be ignored (should not be allocated). For ngriddim=3 also dim3 is used to describe the grid etc. E.g. if your distribution is given by the three variables the poloidal flux, perpendicular and parallel velocities, then ngriddim=3 and grid_coord(1)=15, grid_coord(1)=16, grid_coord(3)=6.
grid_coord	vecint_type (7.9.8.1.19)	Identifies the coordinates specifies in dim1, dim2, dim3, dim4, dim5, and dim6. grid_coord(K) describes the coordinate representaed in dimK, for K=1,2...6. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]; 21=pitch=vpar/v [-]; 22=s, the position of the omnigenous plane (generalised equitorial plane) as described by the fields omnigen_surf%s and omnigen_surf%rz; 23=particle spin; 24=n_Legendre, the index of the Legendre polynomial of the pitch, e.g. if the k:th component of dim3(1,1,k,1,1,1)=5 then this refer to the 5:th Legendre polynomial P_5(xi). Vector (6)
thin_orbits	integer (7.9.8.1.3)	Specifies if guiding centre orbits are thin. Note: only used for orbit averaged distribution functions. For thin_orbits=1 the orbit are considered thin, i.e. each orbit is bound to follow a single flux surface; for thin_orbits=0 the orbits are asumed to follow guiding centre trajectories. E.g. thin_orbits=0 using constants of motion as given in a generalised equitorial plane, then the orbit outside the equitorial plane are described by the guiding centre equations of motion.
topology	string (7.9.8.1.4)	Description of the topology of the grid. NOTE: only used for nregion_topo>2.
omnigen_surf(:)	omnigen_surf (7.9.8.1.331)	List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

Type of: dist_ff:grid_info (4276)

7.9.8.1.181 dist_profile_values_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
state	dist_state_1d (7.9.8.1.191)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.8.1.170)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.8.1.170)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.8.1.185)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
sources(:)	dist_sources_1d (7.9.8.1.188)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)

Type of: dist_profiles_1d:cntr_passing (4287) I dist_profiles_1d:co_passing (4287) I dist_profiles_1d:trapped (4287)

7.9.8.1.182 dist_profile_values_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
state	dist_state_2d (7.9.8.1.192)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_2d (7.9.8.1.171)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.8.1.171)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles2d_collisions_z (7.9.8.1.183)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)

Type of: dist_profiles_2d:cntr_passing (4289) I dist_profiles_2d:co_passing (4289) I dist_profiles_2d:trapped (4289)

7.9.8.1.183 dist_profiles2d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_2d (7.9.8.1.171)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_2d:collisions_z (4285) I dist_profiles_2d:collisions_z (4289)

7.9.8.1.184 dist_profiles_1d

1D profiles; includes flux surface averaged quantities. Here the dimensions used refer to: npsi - size of the internal radial grid defined by rho_tor; nion - size of distribution/compositions/ions; nimpur - size of distribution/compositions/impurities; nzimp - size of distribution/compositions/impurities/zmin. Time-dependent

member	type	description
geometry	dist_geometry_1d (7.9.8.1.176)	Grids and metric information; including rho_tor, psi, area and volume. Time-dependent
state	dist_state_1d (7.9.8.1.191)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent
collisions_e	dist_collisional_transfer_1d (7.9.8.1.170)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_1d (7.9.8.1.170)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles_1d_collisions_z (7.9.8.1.185)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
thermalised	dist_thermalised_1d (7.9.8.1.193)	Representation of the flux surface averaged source of thermal particles, momentum and energy due to thermalisation. Here thermalisation refers to non-thermal particles, sufficiently assimilated to the thermal background to be re-categorised as thermal particles. Note that this source may also be negative if thermal particles are being accelerated such that they form a distinct non-thermal contribution, e.g. due run-away of RF interactions.
sources(:)	dist_sources_1d (7.9.8.1.188)	Vector of flux surface averaged sources and sinks of particles, momentum and power included in the Fokker-Planck modelling. The physical meaning of each source term is specified through the identifier ./sources/type. Note that it is possible to store multiple source terms with the same value for source/type. Time-dependent; Vector(n_source_terms)
trapped	dist_profile_values_1d (7.9.8.1.181)	Flux surface averaged profile evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_1d (7.9.8.1.181)	Flux surface averaged profile evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_1d (7.9.8.1.181)	Flux surface averaged profile evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_1d (4297)

7.9.8.1.185 dist_profiles_1d_collisions_z

Collisional exchange from each background impurities species to the distribution function. Time-dependent;

member	type	description
charge_state(:)	dist_collisional_transfer_1d (7.9.8.1.170)	Collisional exchange from each charge state (or bundled charge state) to the distribution function. Time-dependent; Vector (nzimp)

Type of: dist_profile_values_1d:collisions_z (4284) I dist_profiles_1d:collisions_z (4287)

7.9.8.1.186 dist_profiles_2d

2D profiles in the poloidal plane; includes velocity space integrated quantities. Time-dependent

member	type	description
geometry	dist_geometry_2d (7.9.8.1.177)	Grids and metric information; including R, Z, rho_tor, psi, theta_geom and theta_strt. The grid has to be rectangular in a pair of these coordinates; this is specified in coord_type. Time-dependent
state	dist_state_2d (7.9.8.1.192)	Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
collisions_e	dist_collisional_transfer_2d (7.9.8.1.171)	Collisional exchange from the background electrons to the distribution function. Time-dependent
collisions_i(:)	dist_collisional_transfer_2d (7.9.8.1.171)	Collisional exchange from each background ion speices to the distribution function. Time-dependent; Vector (nions)
collisions_z(:)	dist_profiles2d_collisions_z (7.9.8.1.183)	Collisional exchange from each background impurities species to the distribution function. Time-dependent; Vector (nimpur)
trapped	dist_profile_values_2d (7.9.8.1.182)	2D profiles evaluated using the trapped particle part of the distribution.
co_passing	dist_profile_values_2d (7.9.8.1.182)	2D profiles evaluated using the co-current passing particle part of the distribution.
cntr_passing	dist_profile_values_2d (7.9.8.1.182)	2D profiles evaluated using the counter-current passing particle part of the distribution.

Type of: distri_vec:profiles_2d (4297)

7.9.8.1.187 dist_sources_0d

Volume integrated source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.8.1.189)	Reference identifying the origin and type of source; Time-dependedent
particle	float (7.9.8.1.2)	Source (or sink) rate of particles [1/s]; Time-dependedent; Scalar
momentum	float (7.9.8.1.2)	Source (or sink) rate of toroidal angular momentum [Nm/s]; Time-dependedent; Scalar
energy	float (7.9.8.1.2)	Source (or sink) rate of energy [J/s]; Time-dependedent; Scalar

Type of: dist_global_param:sources (4281)

7.9.8.1.188 dist_sources_1d

Flux surface averaged source included in the Fokker-Planck model.

member	type	description
source_ref	dist_sources_reference (7.9.8.1.189)	Reference identifying the origin and type of source; Time-dependedent
particle	vecflt_type (7.9.8.1.18)	Source (or sink) rate of particles density [1/s/m**3]; Time-dependedent; Vector (npsi)
momentum	vecflt_type (7.9.8.1.18)	Source (or sink) rate of toroidal angular momentum density [Nm/s/m**3]; Time-dependedent; Vector (npsi)
energy	vecflt_type (7.9.8.1.18)	Source (or sink) rate of energy density [J/s/m**3]; Time-dependedent; Vector (npsi)

Type of: dist_profile_values_1d:sources (4284) I dist_profiles_1d:sources (4287)

7.9.8.1.189 dist_sources_reference

Volume integrated source included in the Fokker-Planck model.

member	type	description
type	identifier (7.9.8.1.263)	Identifier for sources and sinks in Fokker-Planck solver; type.flag=1 for wave source, type.flag=2 for particle source, etc (see fokker_planck_source_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes); Time-dependedent
index_waveid	vecint_type (7.9.8.1.19)	Index pointing to /distribution/distri_vec/wave_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)
index_srcid	vecint_type (7.9.8.1.19)	Index pointing to /distribution/distri_vec/source_id[index_waveid] from which the source is taken. Time-dependedent; Vector (npsi)

Type of: dist_sources_0d:source_ref (4290) I dist_sources_1d:source_ref (4291)

7.9.8.1.190 dist_state_0d

Algebraic moments of the distribution function integrated over the plasma volume, e.g. total number of particles, energy etc. Time-dependent

member	type	description
n_particles	float (7.9.8.1.2)	Number of particles in the distribution; the volume integral of the density (note: this is the number of real particles and not markers); Time-dependent

member	type	description
n_part_fast	float (7.9.8.1.2)	Number of fast particles in the distribution; the volume integral of the fast particle density (note: this is the number of real particles and not markers); Time-dependent
enrg	float (7.9.8.1.2)	Total energy distribution [J]; Time-dependent
enrg_fast	float (7.9.8.1.2)	Total energy of the fast particle distribution [J]; Time-dependent
enrg_fast_pa	float (7.9.8.1.2)	Parallel energy of the fast particle distribution [J]; Time-dependent
momentm_fast	float (7.9.8.1.2)	Kinetic toroidal angular momentum of the fast ions [Nms]; Time-dependent; Vector (npsi)
current_dr	float (7.9.8.1.2)	Toroidal non-inductive current drive [A]; Time-dependent.
torque_jrxb	float (7.9.8.1.2)	Toroidal torque due to radial currents [N.m]; Time-dependent.

Type of: dist_global_param:state (4281)

7.9.8.1.191 dist_state_1d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	vecflt_type (7.9.8.1.18)	Flux surface averaged particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Vector (npsi)
dens_fast	vecflt_type (7.9.8.1.18)	Flux surface averaged fast particle density [1/m^3]; Time-dependent; Vector (npsi)
pres	vecflt_type (7.9.8.1.18)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Vector (npsi)
pres_fast	vecflt_type (7.9.8.1.18)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Vector (npsi)
pres_fast_pa	vecflt_type (7.9.8.1.18)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Vector (npsi)
momentm_fast	vecflt_type (7.9.8.1.18)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Vector (npsi)
current	vecflt_type (7.9.8.1.18)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Vector (npsi)
current_fast	vecflt_type (7.9.8.1.18)	Flux surface averaged toroidal current density of fast (non-thermal) particles (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Vector (npsi).
torque_jrxb	vecflt_type (7.9.8.1.18)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Vector (npsi)

Type of: dist_profile_values_1d:state (4284) I dist_profiles_1d:state (4287)

7.9.8.1.192 dist_state_2d

Fluid moments describing the state of the distribution; calculated from the distribution. Time-dependent

member	type	description
dens	matflt_type (7.9.8.1.15)	Particle density (including both thermal and fast particles) [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
dens_fast	matflt_type (7.9.8.1.15)	Fast particle density [1/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
pres	matflt_type (7.9.8.1.15)	Scalar pressure (including both thermal and fast particles) [J/m^3]. Related to the energy content, W, according to: pres=2*W/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast	matflt_type (7.9.8.1.15)	Scalar pressure of the fast particles [J/m^3]. Related to the fast particle energy content, Wf, according to: pres_fast=2*Wf/3. Time-dependent; Matrix (n_coord1, n_coord2)
pres_fast_pa	matflt_type (7.9.8.1.15)	Parallel pressure of the fast particles [J/m^3]. Related to the fast particle parallel energy content, Wfpar, according to: pres_fast_pa=2*Wfpar. Time-dependent; Matrix (n_coord1, n_coord2)
momentm_fast	matflt_type (7.9.8.1.15)	Kinetic toroidal angular momentum density of the fast ions [Ns/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)
current	matflt_type (7.9.8.1.15)	Total toroidal driven current density (including electron and thermal ion back-current, or drag-current) [A/m^3]; Time-dependent; Matrix (n_coord1, n_coord2)
current_fast	matflt_type (7.9.8.1.15)	Toroidal current density of fast (non-thermal) particles of the distribution species (excluding electron and thermal ion back-current, or drag-current) [A.m^-2]; Time-dependent; Matrix (n_coord1, n_coord2).
torque_jrxb	matflt_type (7.9.8.1.15)	Toroidal torque density due to radial currents, excluding radial current due to neoclassical effect [N/m^2]; Time-dependent; Matrix (n_coord1, n_coord2)

Type of: dist_profile_values_2d:state (4285) I dist_profiles_2d:state (4289)

7.9.8.1.193 dist_thermalised_1d

Representation of the flux surface averaged source of thermal particles, momentum and energy due to thermalisation. Here thermalisation refers to non-thermal particles, sufficiently assimilated to the thermal background to be re-categorised as thermal particles. Note that this source may also be negative if thermal particles are being accelerated such that they form a distinct non-thermal contribution, e.g. due run-away of RF interactions.

member	type	description
particle	vecflt_type (7.9.8.1.18)	Source rate for the thermal particle density due to the thermalisation of fast (non-thermal) particles [1/s/m**3]; Time-dependedent; Vector (npsi)
momentum	vecflt_type (7.9.8.1.18)	Source rate for the toroidal angular momentum density within the thermal particle population due to the thermalisation of fast (non-thermal) particles [N/m**2]; Time-dependedent; Vector (npsi)
energy	vecflt_type (7.9.8.1.18)	Source rate for the energy density within the thermal particle population due to the thermalisation of fast (non-thermal) particles [W/m**3]; Time-dependedent; Vector (npsi)

Type of: dist_profiles_1d:thermalised (4287)

7.9.8.1.194 distri_vec

Vector over all distribution functions. Every distribution function has to be associated with only one particle species, specifiec in distri_vec/species/, but there could be multiple distribution function for each species. In this case, the fast particle populations should be superposed. Time-dependent. Structure array(ndistri_vec)

member	type	description
wave_id(:)	enum_instance (7.9.8.1.216)	List all waves affecting the distribution, as specified in waves/coherentwave/wave_id (see waves_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_antennas)
source_id(:)	enum_instance (7.9.8.1.216)	List all neutral beam injectors and reactions contributing to the source, as specified in distsource/source/source_id (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes). Vector(n_injectors_and_reactions)
species	species_reference (7.9.8.1.439)	Defines the distribution function species represented in this element of distri_vec. Time-dependent
gyro_type	integer (7.9.8.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle position; 2 = given at the gyro centre of the particle position. Time-dependent
fast_filter	fast_thermal_separation_filter (7.9.8.1.228)	Description of how the fast and the thermal particle populations, used in global_param and profiles_1d, were separated.
global_param	dist_global_param (7.9.8.1.178)	Global parameters (in most cases volume integrated and surface averaged quanatities). Time-dependent
profiles_1d	dist_profiles_1d (7.9.8.1.184)	Flux surface averaged profiles.
profiles_2d	dist_profiles_2d (7.9.8.1.186)	2D profiles in the poloidal plane
dist_func	dist_func (7.9.8.1.174)	Distribution functions. The total distribution total distribution can either be given by the a set of markers/test particles (in markers), or by a gridded function (dist_expand). Note that the gridded distribution can be written as sum of successive approximations, where each term is given by an element in the vector dist_expand. Finally, the distribution can be written as a sum of a marker distribution and a gridded distribution, e.g. for delta-f Monte Carlo solution. Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: distribution:distri_vec (4141)

7.9.8.1.195 distsource_global_param

Global parameters (volume integrated).

member	type	description
src_pow	exp0D (7.9.8.1.224)	Total power source [W]; Time-dependent.
src_rate	exp0D (7.9.8.1.224)	Particle source rate [1/s]; Time-dependent.
mag_axis	rz0D (7.9.8.1.386)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field. Used to define the radial coordiante rho_tor. Time-dependent; Scalar

Type of: distsource_source:global_param (4302)

7.9.8.1.196 distsource_line_src_prof

1D profiles representation of a line source. Time-dependent

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate at the grid points for 1D profiles [m]. Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate at the grid points for 1D profiles; Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux at the grid points for 1D profiles [Wb], without 1/2pi and such that Bp = |grad psi| / (R 2 pi). Time-dependent; Vector (npsi)
R	vecflt_type (7.9.8.1.18)	Major radius at the line source. Time-dependent; Vector (npsi)
Z	vecflt_type (7.9.8.1.18)	Vertical position of the line source. Time-dependent; Vector (npsi)
theta	vecflt_type (7.9.8.1.18)	Polidal angle [rad]. Time-dependent; Vector (npsi)
theta_id	vecflt_type (7.9.8.1.18)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.8.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)
pitch	vecflt_type (7.9.8.1.18)	Pitch (i.e. v_parallel/v) of source particles. Time-dependent; Vector (npsi)
energy	vecflt_type (7.9.8.1.18)	Kinetic energy of source particles [eV]. Time-dependent; Vector (npsi)
ang_momentum	vecflt_type (7.9.8.1.18)	Kinetic angular momentum of a single source particles, R m v_phi [Nms]. Time-dependent; Vector (npsi)
src_rate	vecflt_type (7.9.8.1.18)	Source density of particles [1/m^3/s]. Time-dependent; Vector (npsi)

Type of: distsource_source:line_srcprof (4302)

7.9.8.1.197 distsource_profiles_1d

1D radial profiles

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.8.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)
pow_den	exp1D (7.9.8.1.225)	Flux surface averaged power density [W/m^3]; Time-dependent; Vector (npsi)
trq_den	exp1D (7.9.8.1.225)	Flux surface averaged toroidal torque density [N/m^2]; Time-dependent; Vector (npsi)
src_rate	exp1D (7.9.8.1.225)	Flux surface averaged total source density of particles [m^-3 s^-1]; Time-dependent; Vector (npsi)

Type of: distsource_source:profiles_1d (4302)

7.9.8.1.198 distsource_profiles_2d

2D source profiles in terms of two phase space coordinates

member	type	description
grid_coord	vecint_type (7.9.8.1.19)	Identifies the coordinates specifies in dim1 and dim2. grid_coord(1) and grid_coord(2) describe the coordinate represented in dim1 and dim2. The possible coordinates are: 1=R, Major radius [m]; 2=Z, Vertical position [m]; 3=X, first cartesian coordinate in the horizontal plane [m]; 4=Y, second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]; 5=phi, toroidal angle [rad]; 6=psi, poloidal magnetic flux [T*m^2]; 7=rhotor, the square root of the toroidal flux; 8=theta, geometrical poloidal angle [rad]; 9=theta_b, Boozer poloidal angle [rad]; 10=vx, velocity in the x-direction [m/s]; 11=vy, velocity in the y-direction [m/s]; 12=vz, velocity in the z-direction [m/s]; 13=vel, total velocity [m/s]; 14=vphi, velocity in the phi-direction [m/s]; 15=vpar, velocity in the parallel direction [m/s]; 16=vperp, velocity in the perpendicular direction [m/s]; 17=E, Hamiltonian energy [J]; 18=Pphi, canonical toroidal angular momentum [kg m^2/s]; 19=mu, magnetic moment [J/T]; 20=Lambda=mu/E [1/T]. Vector (2)
dim1	matflt_type (7.9.8.1.15)	First coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
dim2	matflt_type (7.9.8.1.15)	Second coordinate of 2D grid. Time-dependent; Vector (ndim1,ndim2)
g11	matflt_type (7.9.8.1.15)	11 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g12	matflt_type (7.9.8.1.15)	12 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
g21	matflt_type (7.9.8.1.15)	21 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)

member	type	description
g22	matflt_type (7.9.8.1.15)	22 component of the covariant metric tensor in the (dim1, dim2) coordiante system. Time-dependent; Vector (ndim1,ndim2)
pow_den	exp2D (7.9.8.1.226)	Source power density. Here sum(M,N=1,2; pow_den*gNM*dimN*dimM) have unit [W]. Time-dependent; Vector (ndim1,ndim2)
src_rate	exp2D (7.9.8.1.226)	Source density of particles.Here sum(M,N=1,2; src_rate*gNM*dimN*dimM) have unit [1/s]. Time-dependent; Vector (ndim1,ndim2)

Type of: distsource_source:profiles_2d (4302)

7.9.8.1.199 distsource_source

Source

member	type	description
source_id(:)	enum_instance (7.9.8.1.216)	List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for type: NBI or reaction names (see distsource_types in the Documentation website under Conventions/Enumerated_datatypes); the field name should either be taken from nbi(*)%nbi_unit(*)%name, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)
species	species_reference (7.9.8.1.439)	Defines the source species represented in this element of the vector /distsource/source. Time-dependent
gyro_type	integer (7.9.8.1.3)	Defines how to interpret the spatial coordinates: 1 = given at the actual particle birth point; 2 =given at the gyro centre of the birth point.
global_param	distsource_global_param (7.9.8.1.195)	Global parameters.
profiles_1d	distsource_profiles_1d (7.9.8.1.197)	1D radial profiles
profiles_2d	distsource_profiles_2d (7.9.8.1.198)	2D source profiles in terms of two phase space coordinates
line_srcprof(:)	distsource_line_src_prof (7.9.8.1.196)	1D profiles representation of a line source. Time-dependent
source_rate	source_rate (7.9.8.1.433)	Source density of particles in phase space (real space, velocity space, spin state).
markers	weighted_markers (7.9.8.1.533)	Source given as a set of markers (test particles) born per second.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: distsource:source (4142)

7.9.8.1.200 divergence

Detailed information on beamlet divergence. Divergens is described as a super position of Gaussian profiles with amplitide "frac_divcomp" and vertical/horizontal divergence "div_vert"/"div_horiz". Note that for positive ion NBI the divergence is well described by a single Gaussian.

member	type	description
frac_divcomp	vecflt_type (7.9.8.1.18)	Fraction of injected particles. Vector(ndiv_comp)
div_vert	vecflt_type (7.9.8.1.18)	The vertical beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)
div_horiz	vecflt_type (7.9.8.1.18)	The horizontal beamlet divergence [rad]. Here the divergence is defined for Gaussian beams as the angel where the beam density is reduced by a factor 1/e compared to the maximum density. For non-Gaussian beams the divergence is sqrt(2)*mean((x-mean(x))**2), where x is the angle and the mean should be performed over the beam density, P(x): mean(y)=int(y*P(x)*dx). Vector(ndiv_comp)

Type of: beamletgroup:divergence (4190)

7.9.8.1.201 e_components

E-field representation in terms of the parallel and circularly polarised components

member	type	description
e_plus	complexgrid_scalar_cplx (7.9.8.1.116)	Left hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar

member	type	description
e_minus	complexgrid_scalar_cplx (7.9.8.1.116)	Right hand circularly polarised component of the perpendicular (to the static magnetic field) electric field [V/m]. Time-dependent; Complexgrid_scalar
e_para	complexgrid_scalar_cplx (7.9.8.1.116)	Parallel (to the static magnetic field) component of electric field [V/m]. Time-dependent; Complexgrid_scalar
e_norm	complexgrid_scalar_cplx (7.9.8.1.116)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
e_binorm	complexgrid_scalar_cplx (7.9.8.1.116)	Magnitude of perpendicular (to the static magnetic field) wave electric field tangent to a flux surface [V/m]; Time-dependent; Complexgrid_scalar
b_norm	complexgrid_scalar_cplx (7.9.8.1.116)	Magnitude of perpendicular (to the static magnetic field) wave magnetic field normal to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_binorm	complexgrid_scalar_cplx (7.9.8.1.116)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Complexgrid_scalar
b_para	complexgrid_scalar_cplx (7.9.8.1.116)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Complexgrid_scalar
k_perp	complexgrid_scalar_cplx (7.9.8.1.116)	Perpendicular wave number [1/m]; Time-dependent; Complexgrid_scalar

Type of: fullwave:e_components (4340)

7.9.8.1.202 ecemeasure

Measured values

member	type	description
harmonic	integer (7.9.8.1.3)	Harmonic detected by the ECE channels. Time-dependent.
position	rzphi1Dexp (7.9.8.1.394)	Position of the measurement. Time-dependent. Vector (nchannels)
te	exp1D (7.9.8.1.225)	Electron temperature [eV]. Time-dependent. Vector (nchannels)

Type of: ecediag:measure (4143)

7.9.8.1.203 ecesetup

diagnostic setup information

member	type	description
frequency	vecflt_type (7.9.8.1.18)	Frequency of the ECE channels. Vector (nchannels)
los	setup_line_exp (7.9.8.1.425)	Geometry of the line of sight.

Type of: ecediag:setup (4143)

7.9.8.1.204 edge_fluid

Fluid quantities

member	type	description
ne	edge_fluid_scalar_simplestruct (7.9.8.1.206)	Electron density [1/m^3]; Time-dependent;
ni(:)	edge_fluid_scalar (7.9.8.1.205)	Ion density [1/m^3] (per species). Array of structures(nspecies); Time-dependent;
ve	edge_fluid_vector_simplestruct (7.9.8.1.209)	Electron velocity [m/s]; Time-dependent;
vi(:)	edge_fluid_vector (7.9.8.1.208)	Ion velocity [m/s] (per species).Array of structures(nspecies); Time-dependent;
te	edge_fluid_scalar_simplestruct (7.9.8.1.206)	Electron temperature [eV]; Time-dependent;
ti(:)	edge_fluid_scalar (7.9.8.1.205)	Ion temperature [eV] (per species). Array of structures(nspecies).; Time-dependent;
te_aniso	edge_fluid_vector_simplestruct (7.9.8.1.209)	Anisotropic electron temperature [eV]; Time-dependent;
ti_aniso(:)	edge_fluid_vector (7.9.8.1.208)	Anisotropic ion temperature [eV] (per species). Array of structures(nspecies); Time-dependent;
po	edge_fluid_scalar_simplestruct (7.9.8.1.206)	Electric potential [V]; Time-dependent;
j	edge_fluid_vector_simplestruct (7.9.8.1.209)	Electric current [A]; Time-dependent;

member	type	description
b(:)	complexgrid_vector (7.9.8.1.121)	Magnetic field vector [T]; Time-dependent;

Type of: edge:fluid (4144)

7.9.8.1.205 edge_fluid_scalar

A scalar fluid quantity. To be used as array of structure

member	type	description
value(:)	complexgrid_scalar (7.9.8.1.115)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.8.1.115)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.8.1.121)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.8.1.121)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.8.1.207)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.8.1.115)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ni (4307) I edge_fluid:ti (4307) I edge_fluid_vector:comps (4311) I edge_fluid_vector_simplestruct:comps (4312)

7.9.8.1.206 edge_fluid_scalar_simplestruct

A scalar fluid quantity. To be used as simple structure.

member	type	description
value(:)	complexgrid_scalar (7.9.8.1.115)	Value of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndvalue(:)	complexgrid_scalar (7.9.8.1.115)	Boundary values of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
flux(:)	complexgrid_vector (7.9.8.1.121)	Flux of the quantity. Possibly stored on multiple subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
bndflux(:)	complexgrid_vector (7.9.8.1.121)	Flux of the quantity. Possibly stored on multiple (boundary) subgrids.; Time-dependent; Array of structures (nsubgrid_quantity)
transpcoeff(:)	edge_fluid_scalar_transpcoeff (7.9.8.1.207)	Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)
source(:)	complexgrid_scalar (7.9.8.1.115)	Source; Time-dependent; Array of structures (nsubgrid_quantity)

Type of: edge_fluid:ne (4307) I edge_fluid:po (4307) I edge_fluid:te (4307)

7.9.8.1.207 edge_fluid_scalar_transpcoeff

Transport coefficients; Time-dependent; Array of structures (nsubgrid_quantity)

member	type	description
d	complexgrid_vector_simplestruct (7.9.8.1.122)	Diffusivity [m^2/s]; Time-dependent;
v	complexgrid_vector_simplestruct (7.9.8.1.122)	Velocity [m/s]; Time-dependent;

Type of: edge_fluid_scalar:transpcoeff (4308) I edge_fluid_scalar_simplestruct:transpcoeff (4309)

7.9.8.1.208 edge_fluid_vector

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as array of structure

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.8.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
align	vecint_type (7.9.8.1.19)	Alignment of vector components, numerical flag. Int vector (number of vector components);
alignid	vecstring_type (7.9.8.1.20)	Alignment of vector components, string description. String vector (number of vector components);
comps(:)	edge_fluid_scalar (7.9.8.1.205)	Components of the vector. Array of structures (number of vector components); Time-dependent;

Type of: edge_fluid:ti_aniso (4307) I edge_fluid:vi (4307)

7.9.8.1.209 edge_fluid_vector_simplestruct

A fluid vector quantity, with components possibly explicitly aligned to a coordinate direction. To be used as simple structure.

member	type	description
griduid	integer (7.9.8.1.3)	Unique identifier of the grid this vector quantity is associated with.
basis	integer (7.9.8.1.3)	Index of basis (defined in associated grid) this vector is aligned to; If set to GRID_UNDEFINED=0, the canonical basis of the default coordinates of the grid assumed.
comps(:)	edge_fluid_scalar (7.9.8.1.205)	Components of the vector. Array of structures(ndim); Time-dependent;
align	vecint_type (7.9.8.1.19)	Alignment of vector components, numerical flag. Int vector(ndim);
alignid	vecstring_type (7.9.8.1.20)	Alignment of vector components, string description. String vector(ndim);

Type of: edge_fluid:j (4307) I edge_fluid:te_aniso (4307) I edge_fluid:ve (4307)

7.9.8.1.210 edge_kinetic

Kinetic quantities

member	type	description
f(:)	edge_kinetic_distribution (7.9.8.1.211)	Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

Type of: edge:kinetic (4144)

7.9.8.1.211 edge_kinetic_distribution

Distribution function [1/m^3 (m/s)^-3]. Array of structuresr(nspecies); Time-dependent;

member	type	description
value(:)	complexgrid_scalar (7.9.8.1.115)	Value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
bndvalue(:)	complexgrid_scalar (7.9.8.1.115)	Boundary value of distribution function. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
fluxes(:)	complexgrid_vector (7.9.8.1.121)	Fluxes in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;
source(:)	complexgrid_scalar (7.9.8.1.115)	Sources in phase space. Possibly stored on multiple subgrids.; Vector (nsubgrid_quantity). Time-dependent;

Type of: edge_kinetic:f (4313)

7.9.8.1.212 edges

Edges defining the coil volume faces. Structure array. Replicate this edge structure N-times for N-edge cross sections. Use just one for wire coil approximation.

member	type	description
edge_rzphi	rzphi1D (7.9.8.1.393)	Sequence of points describing a coil edge. Vector (npoints)

Type of: desc_coils:edges (4266)

7.9.8.1.213 edgespecies

Array of edge species.

member	type	description
nucindex	integer (7.9.8.1.3)	Index into list of nuclei; int
zmin	float (7.9.8.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.8.1.2)	Maximum Z of species charge state bundle
label	string (7.9.8.1.4)	String identifying the species (e.g. D0, D+, C0, C+, C+2, ...)

Type of: compositions_type:edgespecies (4230)

7.9.8.1.214 element_desc

Element description (equivalent to wall/compositions/nuclei, can link there using nucindex).

member	type	description
nucindex	integer (7.9.8.1.3)	Index into list of nuclei in wall/compositions/nuclei if the element is present there. Otherwise it is 0 and zn, amn and label have to be set.
label	string (7.9.8.1.4)	Element name/label
zn	float (7.9.8.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.8.1.2)	Mass of atom [amu]

Type of: wall:elements (4176)

7.9.8.1.215 entry_def

Structure defining a database entry

member	type	description
user	string (7.9.8.1.4)	Name of the user if private data. Value should be ITM if stored in the official common ITM tree
machine	string (7.9.8.1.4)	Name of the device
shot	integer (7.9.8.1.3)	Shot number
run	integer (7.9.8.1.3)	Run number

Type of: mdinfo:md_entry (4393)

7.9.8.1.216 enum_instance

Specifies a specific enumerated instance of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

member	type	description
type	identifier (7.9.8.1.263)	Identify the type of the object or process.
name	string (7.9.8.1.4)	The name of the object or process. Here the object should be an instans of the type specified in the field type.
index	integer (7.9.8.1.3)	Index the separating objects or processes with the same name.

Type of: coherentwave:wave_id (4210) I distri_vec:source_id (4297) I distri_vec:wave_id (4297) I distsource_source:source_id (4302)

7.9.8.1.217 eqconstraint

measurements to constrain the equilibrium, output values and accuracy of the fit

member	type	description
bpol	eqmes1D (7.9.8.1.220)	poloidal pickup coils [T]
bvac_r	eqmes0D (7.9.8.1.219)	Vacuum field times radius in the toroidal field magnet [T.m];
diamagflux	eqmes0D (7.9.8.1.219)	Diamagnetic flux [Wb], defined as integral (Btor - Btor,vac) dS where the integral is over the poloidal cross section of the plasma. It is measured by a single wire loop around the cross section of the torus (e.g. Wesson, Tokamaks, 1997, p.473). It gives information about the separation of the two source profiles p' and FF' of the Grad-Shafranov equation.
faraday	eqmes1D (7.9.8.1.220)	Faraday rotation angles [rad]
flux	eqmes1D (7.9.8.1.220)	Poloidal flux loops [Wb]
i_plasma	eqmes0D (7.9.8.1.219)	Plasma current [A];
isoflux	isoflux (7.9.8.1.269)	Point series at which the flux is considered the same
jsurf	eqmes1D (7.9.8.1.220)	Average of current density on the flux surface [A/m^2]
magnet_iron	magnet_iron (7.9.8.1.287)	Magnetisation in iron segments [T]
mse	eqmes1D (7.9.8.1.220)	MSE angles [rad]
ne	eqmes1D (7.9.8.1.220)	Electron density [m^-3 for local measurement, m^-2 if line integrated]
pfcurrent	eqmes1D (7.9.8.1.220)	Current in poloidal field coils [A]
pressure	eqmes1D (7.9.8.1.220)	Total pressure [Pa]
q	q (7.9.8.1.371)	Safety factor
xpts	xpts (7.9.8.1.536)	Position of the X-point(s)

Type of: equilibrium:eqconstraint (4146)

7.9.8.1.218 eqgeometry

Geometry of the plasma boundary

member	type	description
source	string (7.9.8.1.4)	Comment describing the origin of the eqgeometry data; String
boundarytype	integer (7.9.8.1.3)	0 (limiter) or 1 (separatrix); Integer; Time-dependent
boundary(:)	rz1Dexp (7.9.8.1.389)	RZ description of the plasma boundary; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, boundary must be allocated to size 1. Time-dependent;
geom_axis	rz0D (7.9.8.1.386)	RZ position of the geometric axis (defined as (Rmin+Rmax) / 2 and (Zmin+Zmax) / 2 of the boundary) [m]; Time-dependent; Scalar
a_minor	float (7.9.8.1.2)	Minor radius of the plasma boundary [m]; Time-dependent; Scalar
elongation	float (7.9.8.1.2)	Elongation of the plasma boundary; Time-dependent; Scalar
elong_upper	float (7.9.8.1.2)	Elongation upper of the plasma boundary; Time-dependent; Scalar
elong_lower	float (7.9.8.1.2)	Elongation lower of the plasma boundary; Time-dependent; Scalar
tria_upper	float (7.9.8.1.2)	Upper triangularity of the plasma boundary; Time-dependent; Scalar
tria_lower	float (7.9.8.1.2)	Lower triangularity of the plasma boundary; Time-dependent; Scalar
xpts(:)	rz1Dexp (7.9.8.1.389)	Position of the Xpoints, first is the active xpoint if diverted [m]; This is formally declared as an array of structure to allow for time-dependent size of the R and Z vectors in the sub-structure below. However, xpts must be allocated to size 1. Time-dependent;
left_low_st	rz0D (7.9.8.1.386)	Position of the lower left strike point [m]; Time-dependent; Scalar
right_low_st	rz0D (7.9.8.1.386)	Position of the lower right strike point [m]; Time-dependent; Scalar
left_up_st	rz0D (7.9.8.1.386)	Position of the upper left strike point [m]; Time-dependent; Scalar
right_up_st	rz0D (7.9.8.1.386)	Position of the upper right strike point [m]; Time-dependent; Scalar
active_limit	rz0D (7.9.8.1.386)	Position of the active limiter point (point of the plasma boundary in contact with the limiter) [m]; Set R = 0 for X-point plasma; Time-dependent; Scalar
ang_lcms_upo	float (7.9.8.1.2)	Angle at the LMCS X point upper outer; Time-dependent; Scalar
ang_lcms_upi	float (7.9.8.1.2)	Angle at the LMCS X point upper inner; Time-dependent; Scalar
ang_lcms_lwo	float (7.9.8.1.2)	Angle at the LMCS X point lower outer; Time-dependent; Scalar
ang_lcms_lwi	float (7.9.8.1.2)	Angle at the LMCS X point lower inner; Time-dependent; Scalar

Type of: equilibrium:eqgeometry (4146) I scenario:eqgeometry (4169)

7.9.8.1.219 eqmes0D

Structure for equilibrium measurement 0D signal

member	type	description
measured	float (7.9.8.1.2)	Measured value of the signal; Time-dependent; Scalar.

member	type	description
source	string (7.9.8.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.8.1.2)	Time (exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.
exact	integer (7.9.8.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	float (7.9.8.1.2)	weight given to the measurement (¿= 0); Time-dependent; Scalar.
sigma	float (7.9.8.1.2)	standard deviation of the measurement; Time-dependent; Scalar.
calculated	float (7.9.8.1.2)	Signal as recalculated by the equilibrium code; Time-dependent; Scalar.
chi2	float (7.9.8.1.2)	chi^2 of (calculated-measured); Time-dependent; Scalar.

Type of: eqconstraint:bvac_r (4320) I eqconstraint:diamagflux (4320) I eqconstraint:i_plasma (4320)

7.9.8.1.220 eqmes1D

Structure for equilibrium measurement 1D signal

member	type	description
measured	vecflt_type (7.9.8.1.18)	Measured value of the signal; Time-dependent; Array(nmeas)
source	string (7.9.8.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
time	float (7.9.8.1.2)	Exact time slice used from the time array of the source signal. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used);Time-dependent; Scalar
exact	vecint_type (7.9.8.1.19)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; Time-dependent; Array(nmeas)
weight	vecflt_type (7.9.8.1.18)	weight given to the measurement (¿= 0); Time-dependent; Array(nmeas)
sigma	vecflt_type (7.9.8.1.18)	standard deviation of the measurement; Time-dependent; Array(nmeas)
calculated	vecflt_type (7.9.8.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Array(nmeas)
chi2	vecflt_type (7.9.8.1.18)	chi^2 of (calculated-measured); Time-dependent; Array(nmeas)

Type of: eqconstraint:bpol (4320) I eqconstraint:faraday (4320) I eqconstraint:flux (4320) I eqconstraint:jsurf (4320) I eqconstraint:mse (4320) I eqconstraint:ne (4320) I eqconstraint:pfcurrent (4320) I eqconstraint:pressure (4320) I magnet_iron:mr (4390) I magnet_iron:mz (4390)

7.9.8.1.221 equatorial_plane

Description of the equitorial plane or any other omnigeuous surfaces. Time-dependent

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
z	vecflt_type (7.9.8.1.18)	Major radius coordinate of the equitorial plane (m). Time-dependent; Vector(n_equitorial_grid)
s	vecflt_type (7.9.8.1.18)	Distance along the poloidal projection of the equitorial plane (m). Here s=0 should be at the magnetic axis, s>0 on the low field side and s<0 on the high field side. For example, in up-down symmetric fields s=R-R0, where R is the major radius and R0 the major radius at the magnetic axis. Time-dependent; Vector(n_equatorial_grid)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0 is the reference magnetic field, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (n_equitorial_grid)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], evaluated without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (n_equitorial_grid)
b_mod	vecflt_type (7.9.8.1.18)	The modulous of the magnetic field along the equitorial plane, or more generally of the omnigeuous surfaces [T]. Time-dependent; Vector (n_equatorial_grid)

Type of: dist_distrivec_distfunc_fexp_param:equatorial (4275) I parameters:equatorial (4442)

7.9.8.1.222 equilibrium_profiles2d_grid

definition of the 2D grid

member	type	description
dim1	vecflt_type (7.9.8.1.18)	First dimension values; Time-dependent; Vector (ndim1)
dim2	vecflt_type (7.9.8.1.18)	Second dimension values; Time-dependent; Vector (ndim2)

member	type	description
connect	matint_type (7.9.8.1.16)	In case of a finite elemnt representation, lists the points (3 for triangles, 4 for quadrangles) which define a finite element. In this case, ndim1=ndim2 and the value of grid_connect represents the index of the points in the list 1:ndim. E.g. : grid_connect(i,1:4) is a list of four integers [k1 k2 k3 k4] meaning that finite element #i is defined by the points (dim1(k1),dim2(k1)),(dim1(k2),dim2(k2)),(dim1(k3),dim2(k3)) and (dim1(k4),dim2(k4)); Time-dependent; Matrix of integers (nelement,4)

Type of: equilibrium_profiles_2d:grid (4326)

7.9.8.1.223 equilibrium_profiles_2d

output profiles in the poloidal plane

member	type	description
grid_type	vecstring_type (7.9.8.1.20)	Selection of one of a set of grid types. 1-rectangular (R,Z) grid, in this case the position arrays should not be filled since they are redundant with grid/dim1 and dim2.
grid	equilibrium_profiles2d_grid (7.9.8.1.222)	definition of the 2D grid
r	matflt_type (7.9.8.1.15)	values of the major radius on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
z	matflt_type (7.9.8.1.15)	values of the altitude on the grid [m]; Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.8.1.15)	values of the poloidal flux at the grid in the poloidal plane [Wb]; Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.8.1.15)	values of the poloidal angle on the grid [rad]; Time-dependent; Matrix (ndim1, ndim2)
phi	matflt_type (7.9.8.1.15)	Toroidal flux [Wb]. Time-dependent; Matrix (ndim1, ndim2)
jphi	matflt_type (7.9.8.1.15)	toroidal plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
jpar	matflt_type (7.9.8.1.15)	parallel (to magnetic field) plasma current density [A m-2]; Time-dependent; Matrix (ndim1, ndim2)
br	matflt_type (7.9.8.1.15)	R component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bz	matflt_type (7.9.8.1.15)	Z component of the poloidal magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
bphi	matflt_type (7.9.8.1.15)	toroidal component of the magnetic field at the specified grid [T]; Time-dependent; Matrix (ndim1, ndim2)
vphi	matflt_type (7.9.8.1.15)	toroidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
vtheta	matflt_type (7.9.8.1.15)	Poloidal flow velocity [m/s]; Time-dependent; Matrix (ndim1, ndim2)
rho_mass	matflt_type (7.9.8.1.15)	Mass density [kg/m^3]; Time-dependent; Matrix (ndim1, ndim2)
pressure	matflt_type (7.9.8.1.15)	Pressure [Pa]; Time-dependent; Matrix (ndim1, ndim2)
temperature	matflt_type (7.9.8.1.15)	Temperature [eV]; Time-dependent; Matrix (ndim1, ndim2)

Type of: equilibrium:profiles_2d (4146)

7.9.8.1.224 exp0D

Structure for experimental time-dependent scalar signal

member	type	description
value	float (7.9.8.1.2)	Signal value; Time-dependent; Scalar
abserror	float (7.9.8.1.2)	Absolute error on signal; Time-dependent; Scalar
relerror	float (7.9.8.1.2)	Relative error on signal (normalised to signal value); Time-dependent; Scalar

Type of: antenna_ec:power (4180) I antenna_ic:frequency (4181) I antenna_ic:power (4181) I antenna_lh:power (4182) I bolometer_processed:prad_core (4194) I bolometer_processed:prad_tot (4194) I distsource_global_param:src_pow (4298) I distsource_global_param:src_rate (4298) I fusiondiag_ct_chords:energy (4348) I fusiondiag_spec1d:energy (4354) I fusiondiag_spec2d:energy (4355) I magdiag:diamagener (4155) I magdiag:diamagflux (4155) I magdiag:ip (4155) I nbi_unit:inj_eng_unit (4417) I nbi_unit:pow_unit (4417) I solcurdiag_sol_current:measure (4532) I straps:current (4547) I straps:phase (4547) I toroidfield:bvac_r (4173) I toroidfield:current (4173)

7.9.8.1.225 exp1D

Structure for experimental 1D signal

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value; Time-dependent; Vector

member	type	description
abserror	vecflt_type (7.9.8.1.18)	Absolute error on signal; Time-dependent; Vector
relerror	vecflt_type (7.9.8.1.18)	Relative error on signal (normalised to signal value); Time-dependent; Vector

Type of: bolometer_measure:prad (4193) I bpol_probes:measure (4201) I bremsstrahl_measure:zeff (4202) I coil:coilcurrent (4211) I coil:coilvoltage (4211) I current:spectrum (4261) I cxmeasure:ti (4262) I cxmeasure:vpol (4262) I cxmeasure:vtor (4262) I distsource_profiles_1d:pow_den (4300) I distsource_profiles_1d:src_rate (4300) I distsource_profiles_1d:trq_d (4300) I ecemeasure:te (4305) I flux_loops:measure (4335) I fusiondiag_ct_chords:measure (4348) I fusiondiag_ct_energy:energ (4349) I fusiondiag_ct_energy:measure (4349) I fusiondiag_detect_ct_energy:energy (4350) I fusiondiag_detect_ct_energy:meas (4350) I fusiondiag_emissivity1d:r (4351) I fusiondiag_emissivity1d:z (4351) I fusiondiag_spec1d:measure (4354) I halpha_setup:solidangle (4361) I halphadiag:intensity (4148) I lang_derived:measure (4374) I lang_measure:area (4375) I lang_measure:measure (4375) I lineintegraldiag:measure (4385) I lithmeasure:ne (4386) I magnetise:mr (4391) I magnetise:mz (4391) I modules:amplitude (4406) I modules:phase (4406) I msediag_radia_chord:totradiance (4410) I msediag_radiance:wavelength (4411) I nbi_unit:beamcurrfrac (4417) I nbi_unit:beampowrfrac (4417) I pfcoils:coilcurrent (4453) I pfcoils:coilvoltage (4453) I pfpassive_current:poloidal (4458) I pfpassive_current:toroidal (4458) I pfsupplies:current (4459) I pfsupplies:voltage (4459) I polarimetry:measure (4465) I rfameasure:ti (4486) I rzphi1Dexp:phi (4497) I rzphi1Dexp:r (4497) I rzphi1Dexp:z (4497) I tsmeasure:ne (4598) I tsmeasure:te (4598)

7.9.8.1.226 exp2D

Structure for experimental 2D signal

member	type	description
value	matflt_type (7.9.8.1.15)	Signal value; Time-dependent; Matrix
abserror	matflt_type (7.9.8.1.15)	Absolute error on signal; Time-dependent; Matrix
relerror	matflt_type (7.9.8.1.15)	Relative error on signal (normalised to signal value); Time-dependent; Matrix

Type of: distsource_profiles_2d:pow_den (4301) I distsource_profiles_2d:src_rate (4301) I fusiondiag_emissivity2d:r (4352) I fusiondiag_emissivity2d:z (4352) I fusiondiag_spec2d:measure (4355)

7.9.8.1.227 f_expansion

Distribution function, f, expanded into a vector of successive approximations. The first element in the vector (f_expansion(1)) is the zeroth order distribution function, while the K:th element in the vector (f_expansion(K)) is the K:th correction, such that the total distribution function is a sum over all elements in the f_expansion vector. Time-dependent. Structure array(Nf_expansion)

member	type	description
grid	complexgrid (7.9.8.1.110)	Grid for storing the distribution function. Time-dependent; Complexgrid
values	complexgrid_scalar (7.9.8.1.115)	Values of the distribution function [m^-3 (m/s)^-3]. Time-dependent; Complexgrid_scalar.
parameters	dist_distrivec_distfunc_fexp_param (7.9.8.1.172)	Parameters used to defined the grid coordinates. Time-dependent

Type of: dist_func:f_expansion (4277)

7.9.8.1.228 fast_thermal_separation_filter

Description of how the fast and the thermal particle populations were separated.

member	type	description
method	identifier (7.9.8.1.263)	Identifier describing the method used to separate the fast and thermal particle population (see fast_thermal_separation_filter_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes)
energy_sep	vecflt_type (7.9.8.1.18)	Energy at which the fast and thermal particle populations were separated [eV]. Vector (nrho). Time-dependent.

Type of: corefast_values:filter (4237) I distri_vec:fast_filter (4297)

7.9.8.1.229 filter

Laplace proper filter

member	type	description
num	matflt_type (7.9.8.1.15)	Coefficients of the numerator, in increasing order : a0 + a1*s + ... + an*s^n; Matrix (nsupplies,n)
den	matflt_type (7.9.8.1.15)	Coefficients of the denominator, in increasing order : b0 + b1*s + ... + bm*s^m; Matrix (nsupplies,m)

Type of: desc_supply:filter (4270)

7.9.8.1.230 flat_polygon

Polygon lying on a flat surface on a 3D cartesian space (x,y,z). The coordinate system on the surface is defined by the origin, "origin", and two basis vectors in (x,y,z) space, "basis1" and "basis2". The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2, i.e. the j:th point is described by "origin+basis1*coord1(j)+basis2*coord2(j)". As an example, a rectangle centered at the origin, with two of the corners given by "origin+basis1" and "origin+basis2" can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1]. The normal vector of the surface is defined to be in the direction "basis1 x basis2".

member	type	description
origin	xyz0D (7.9.8.1.537)	Origin of the surface coordinate system.
basis1	xyz0D (7.9.8.1.537)	First basis vector on the surface.
basis2	xyz0D (7.9.8.1.537)	First basis vector on the surface.
coord1	vecflt_type (7.9.8.1.18)	First coordinate of the polygon points, conjugate to basis1.
coord2	vecflt_type (7.9.8.1.18)	Second coordinate of the polygon points, conjugate to basis2.

Type of: nbi_nbi_unit_wall:collimator (4415)

7.9.8.1.231 flush

FLUSH package coefficients for the mapping of the equlibrium. The time grid of this structure is the same as the equilibrium structure above.

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
position	rz1D (7.9.8.1.387)	Major radius and altitude of the FLUSH grid [m]; Time-dependent; Vectors resp. (nR) and (nZ)
coef	matflt_type (7.9.8.1.15)	Coefficients of the fit; Time-dependent; Matrix 2D (nR,nZ)
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: equilibrium:flush (4146)

7.9.8.1.232 flux_loops

Poloidal flux loops RZ coordinates have 1 component for the full loop and two if there is a negative reference loop

member	type	description
setup_floops	setup_floops (7.9.8.1.423)	diagnostic setup information
measure	exp1D (7.9.8.1.225)	Measured flux [Wb]; Time-dependent; Vector (nloops)

Type of: magdiag:flux_loops (4155)

7.9.8.1.233 fluxel

Structure for the fluxes of a field of the core transport equations (electrons); Time-dependent;

member	type	description
flux_dv	vecflt_type (7.9.8.1.18)	Flux of the field calculated from the transport coefficients. Time-dependent; Vector (nrho)
flux_interp	vecflt_type (7.9.8.1.18)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Vector (nrho)

Type of: corefield:flux (4238)

7.9.8.1.234 fluximp

Structure for the fluxes of a field of the core transport equations (impurities); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.8.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Array2D (nrho,nzimp)
flux_interp	matflt_type (7.9.8.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Array2D (nrho,nzimp)

Type of: impurity_type:flux (4369)

7.9.8.1.235 fluxion

Structure for the fluxes of a field of the core transport equations (ions); Time-dependent;

member	type	description
flux_dv	matflt_type (7.9.8.1.15)	Flux of the field calculated from the transport coefficients. Time-dependent; Matrix (nrho,nion)
flux_interp	matflt_type (7.9.8.1.15)	Interpretative flux deduced from measured data, the integral of the source term, and the time derivative of the field. Time-dependent; Matrix (nrho,nion)

Type of: corefieldion:flux (4239)

7.9.8.1.236 focussing

Describes how the beam is focussed.

member	type	description
focal_len_hz	float (7.9.8.1.2)	Horizontal focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum horizontal width [m]. Scalar
focal_len_vc	float (7.9.8.1.2)	Vertical focal length along the beam line, i.e. the point along the centre of the beamlet-group where the beamlet-group has its minimum vertical width [m]. Scalar
width_min_hz	float (7.9.8.1.2)	The horizontal width of the beamlet-group at the at the horizontal focal point [m]. Scalar
width_min_vc	float (7.9.8.1.2)	The vertical width of the beamlet-group at the at the vertical focal point [m]. Scalar

Type of: beamletgroup:focussing (4190)

7.9.8.1.237 fullwave

Solution by full wave code

member	type	description
grid	complexgrid (7.9.8.1.110)	Grid for storing the components of the wave field; Time-dependent
e_components	e_components (7.9.8.1.201)	E-field representation in terms of the parallel and circularly polarised components
pol_decomp	pol_decomp (7.9.8.1.361)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]
local	local (7.9.8.1.285)	TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

Type of: coherentwave:fullwave (4210)

7.9.8.1.238 fusiondiag_colli_3d

Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.8.1.4)	Name tag for the chord. String.
voxels(:)	fusiondiag_voxels (7.9.8.1.253)	Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

Type of: fusiondiag_collimator:colli_3d (4344)

7.9.8.1.239 fusiondiag_colli_circ

Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.8.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.8.1.424)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_circ (7.9.8.1.242)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_circ (4344)

7.9.8.1.240 fusiondiag_colli_poly

Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.

member	type	description
name	string (7.9.8.1.4)	Name tag for the chord.
setup_line	setup_line (7.9.8.1.424)	Geometric description of the line of sight. First pivot close to detector position and second pivot at first wall hit.
colliunit(:)	fusiondiag_colliunit_poly (7.9.8.1.243)	Detail of each collimator unit of each chord. Replicate this structure for each collimator.

Type of: fusiondiag_collimator:colli_poly (4344)

7.9.8.1.241 fusiondiag_collimator

Collimator array.

member	type	description
colli_circ(:)	fusiondiag_colli_circ (7.9.8.1.239)	Geometry of each channel of detector for circular cross section. Replicate this structure for each channel.
colli_poly(:)	fusiondiag_colli_poly (7.9.8.1.240)	Geometry of each channel of detector for polygon cross section. Replicate this structure for each channel.
colli_3d(:)	fusiondiag_colli_3d (7.9.8.1.238)	Geometry of each channel of detector for arbitrary cross section. Replicate this structure for each channel.

Type of: fusiondiag_fus_product:collimator (4353)

7.9.8.1.242 fusiondiag_colliunit_circ

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
radius	vecflt_type (7.9.8.1.18)	Radius of cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim)
centre	rzphi1D (7.9.8.1.393)	Position of cross section centre; Typically dim=2 for just entry and exit of collimator; Vector (dim)

Type of: fusiondiag_colli_circ:colliunit (4342)

7.9.8.1.243 fusiondiag_colliunit_poly

Detail of each collimator unit of each chord. Replicate this structure for each collimator.

member	type	description
dimension	float (7.9.8.1.2)	Number of edges of cross section.
nodes	rzphi2D (7.9.8.1.396)	Coordinates of nodes defining each cross section; Typically dim=2 for just entry and exit of collimator; Vector (dim,nnodes)

Type of: fusiondiag_colli_poly:colliunit (4343)

7.9.8.1.244 fusiondiag_counts

Integrated emissivity [s^-1].

member	type	description
units	string (7.9.8.1.4)	Energy units (ev, tof - time of flight)
ct_chords(:)	fusiondiag_ct_chords (7.9.8.1.245)	Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1]. Time-dependent
ct_energy(:)	fusiondiag_ct_energy (7.9.8.1.246)	Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1]. Time-dependent
detect_ct(:)	fusiondiag_detect_ct_energy (7.9.8.1.247)	Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1]. Time-dependent

Type of: fusiondiag_fus_product:counts (4353)

7.9.8.1.245 fusiondiag_ct_chords

Integrated emissivity for all spatial chords. Replicate the structure for each energy bin [s^-1].

member	type	description
name	vecstring_type (7.9.8.1.20)	Name tag for each chord. Vector (nchords)
energy	exp0D (7.9.8.1.224)	Energy like variable span. Use mininum energy when no energy spectra is resolved.
measure	exp1D (7.9.8.1.225)	Measured counts. Vector (nchords)

Type of: fusiondiag_counts:ct_chords (4347)

7.9.8.1.246 fusiondiag_ct_energy

Integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord [s^-1].

member	type	description
energy	exp1D (7.9.8.1.225)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.8.1.225)	Measured counts spectra. Vector (nenergy)

Type of: fusiondiag_counts:ct_energy (4347)

7.9.8.1.247 fusiondiag_detect_ct_energy

Detected integrated emissivity for each chord as function of energy like variable. Replicate this structure for each chord. This structure contains the actual experimental data as obtained from the detector. To get from species emissivity to the detector counts a detector tranfer matrix is used (should be shot independent) since a monoenergetic beam will ultimately show up with a given spread in the detector channels. Each detector type or l.o.s. might have a dedicated detctor transfer matrix since the energy discrimination can vary. [s^-1].

member	type	description
energy	exp1D (7.9.8.1.225)	Energy array of detected counts spectra. Vector (nenergy)
measure	exp1D (7.9.8.1.225)	Measured counts spectra. Vector (nenergy)
diag_func	diag_func (7.9.8.1.168)	Structure to provide the description on the detctor used and store the transfer matrix of the detector for that l.o.s.

Type of: fusiondiag_counts:detect_ct (4347)

7.9.8.1.248 fusiondiag_emissivity1d

Reconstructed 1D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.8.1.4)	Energy units (ev, tof - time of flight)
r	exp1D (7.9.8.1.225)	horizontal grid. Vector (dim)

member	type	description
z	exp1D (7.9.8.1.225)	vertical grid. Vector (dim)
spec1d(:)	fusiondiag_spec1d (7.9.8.1.251)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity1d (4353)

7.9.8.1.249 fusiondiag_emissivity2d

Reconstructed 2D emissivity [counts.m^-3.s-1].

member	type	description
units	string (7.9.8.1.4)	Energy units (ev, tof - time of flight)
r	exp2D (7.9.8.1.226)	radial grid. Vector (dim1,dim2)
z	exp2D (7.9.8.1.226)	vertical grid. Vector (dim1,dim2)
spec2d(:)	fusiondiag_spec2d (7.9.8.1.252)	Emissivity in given energy like variable range [counts.m^-3.s-1]; Time-dependent

Type of: fusiondiag_fus_product:emissivity2d (4353)

7.9.8.1.250 fusiondiag_fus_product

Source. Time-dependent. Structure array. Replicate this source structure to accommodate neutron and gammas.

member	type	description
product	string (7.9.8.1.4)	Type of fusion product (neutron,gamma)
reaction	string (7.9.8.1.4)	Type of reaction involved (e.g. DD neutron, Be-alpha,n,gamma-C)
collimator	fusiondiag_collimator (7.9.8.1.241)	Collimator array.
counts	fusiondiag_counts (7.9.8.1.244)	Integrated emissivity [s^-1].
emissivity1d	fusiondiag_emissivity1d (7.9.8.1.248)	Reconstructed 1D emissivity [counts.m^-3.s-1].
emissivity2d	fusiondiag_emissivity2d (7.9.8.1.249)	Reconstructed 2D emissivity [counts.m^-3.s-1].
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: fusiondiag:fus_product (4147)

7.9.8.1.251 fusiondiag_spec1d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.8.1.224)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp1D (7.9.8.1.225)	reconstruction. Vector (dim)

Type of: fusiondiag_emissivity1d:spec1d (4351)

7.9.8.1.252 fusiondiag_spec2d

Emissivity in given energy like variable range [counts.m^-3.s-1].

member	type	description
energy	exp0D (7.9.8.1.224)	Energy like variable span. Use mininum energy when no energy spectra is resolved. Scalar
measure	exp2D (7.9.8.1.226)	reconstruction. Vector (dim1,dim2)

Type of: fusiondiag_emissivity2d:spec2d (4352)

7.9.8.1.253 fusiondiag_voxels

Array of voxel structures defining the plasma region viewed from each collimator and scaling factor for effective solid angle for sources.

member	type	description
centre	rzphi0D (7.9.8.1.392)	Centre of voxel; used also as origin of direction to detector
direction	rzphi0D (7.9.8.1.392)	Second point defining the direction to detector.
volume	float (7.9.8.1.2)	Voxel Volume
solid_angle	float (7.9.8.1.2)	effective solid angle (divided by 4pi) of the voxel towards detector.

Type of: fusiondiag_colli_3d:voxels (4341)

7.9.8.1.254 geom

Geometry between components

member	type	description
dr_bb_sh_ib	float (7.9.8.1.2)	Gap between the breeding blanket module and the shield (inboard) in the equatorial section [m]; Scalar
dr_sh_vv_ib	float (7.9.8.1.2)	Gap between the shield and the vacuum vessel (inboard) in the equatorial section [m]; Scalar
dr_bb_sh_ob	float (7.9.8.1.2)	Gap between the breeding blanket module and the shield (outboard) in the equatorial section [m]; Scalar
dr_sh_vv_ob	float (7.9.8.1.2)	Gap between the shield and the vacuum vessel (outboard) in the equatorial section [m]; Scalar
dr_bb__sh_ib	float (7.9.8.1.2)	Overal radial dimension of the ensemble BB plus shield (inboard) [m]; Scalar
dr_bb__sh_ob	float (7.9.8.1.2)	Overal radial dimension of the ensemble BB plus shield (outboard) [m]; Scalar
delta_int	float (7.9.8.1.2)	Distance between the inner plasma surface and the plasma facing side of the superconducting winding of the toroidal field coil [m]; Scalar

Type of: bb_shield:geom (4129)

7.9.8.1.255 geom_iron

Geometry of the iron segments

member	type	description
npoints	vecint_type (7.9.8.1.19)	Number of points describing an element (irregular outline rzcoordinate); Vector (nsegment)
rzcoordinate	rz2D (7.9.8.1.390)	Irregular outline [m]; 2D arrays (nsegment,max_npoints)

Type of: desc_iron:geom_iron (4268)

7.9.8.1.256 global_param

0d output parameters

member	type	description
beta_pol	float (7.9.8.1.2)	poloidal beta; Time-dependent; Scalar
beta_tor	float (7.9.8.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.8.1.2)	normalised beta; Time-dependent; Scalar
i_plasma	float (7.9.8.1.2)	total toroidal plasma current [A]; Positive sign means anti-clockwise when viewed from above. Time-dependent; Scalar
li	float (7.9.8.1.2)	internal inductance; Time-dependent; Scalar
volume	float (7.9.8.1.2)	total plasma volume [m^3]; Time-dependent; Scalar
area	float (7.9.8.1.2)	area poloidal cross section [m^2]; Time-dependent; Scalar
psi_ax	float (7.9.8.1.2)	poloidal flux at the magnetic axis [Wb]; Time-dependent; Scalar
psi_bound	float (7.9.8.1.2)	poloidal flux at the selected plasma boundary (separatrix for a free boundary code; fixed boundary for fixed boundary code) [Wb]; Time-dependent; Scalar
mag_axis	mag_axis (7.9.8.1.286)	Magnetic axis values
q_95	float (7.9.8.1.2)	q at the 95% poloidal flux surface; Time-dependent; Scalar
q_min	float (7.9.8.1.2)	minimum q value in the plasma; Time-dependent; Scalar
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field, redundant with the toroidfield CPO, to be used by the ETS
w_mhd	float (7.9.8.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (thermal + fast particles) [J]. Time-dependent; Scalar

member	type	description
gamma	float (7.9.8.1.2)	Adiabatic index. Time-dependent; Scalar

Type of: equilibrium:global_param (4146)

7.9.8.1.257 globalparam

Various global quantities calculated from the 1D profiles. Time-dependent

member	type	description
current_tot	float (7.9.8.1.2)	Total plasma current [A]; Time-dependent; Scalar
current_bnd	float (7.9.8.1.2)	Plasma current inside transport solver boundary rho_tor_bnd [A]; Time-dependent; Scalar
current_ni	float (7.9.8.1.2)	Total non-inductive parallel current [A]; Time-dependent; Scalar
vloop	float (7.9.8.1.2)	Toroidal loop voltage [V]; Time-dependent; Scalar
li	float (7.9.8.1.2)	Internal inductance; Time-dependent; Scalar
beta_tor	float (7.9.8.1.2)	toroidal beta; Time-dependent; Scalar
beta_normal	float (7.9.8.1.2)	normalised beta; Time-dependent; Scalar
beta_pol	float (7.9.8.1.2)	poloidal beta; Time-dependent; Scalar
w_dia	float (7.9.8.1.2)	Plasma energy content = 3/2 * int(p,dV) with p being the total pressure (pr_th + pr_perp). Time-dependent; Scalar
geom_axis	rz0D (7.9.8.1.386)	RZ position of the geometric axis (defined as (Rmin+Rmax) / 2 and (Zmin+Zmax) / 2 of the boundary) [m]; Time-dependent; Scalar

Type of: coreprof:globalparam (4137)

7.9.8.1.258 halpha_setup

setup for the lines of sight of the line integrated measurement

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of the channel. Array of strings (nlos).
pivot_point	rzphi1D (7.9.8.1.393)	Pivot point of l.o.s. it can be either the collimator position or entry point on the vessel. Vector (nlos)
horchordang	vecflt_type (7.9.8.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Vector (nlos)
verchordang	vecflt_type (7.9.8.1.18)	Angle of l.o.s. with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Vector (npos)
second_point	rzphi1D (7.9.8.1.393)	Second point defining the l.o.s. together with the pivot_point. Vector (nlos)
solidangle	exp1D (7.9.8.1.225)	Solid angle of the detector; [sr] Vector (nlos)

Type of: halphadiag:setup (4148)

7.9.8.1.259 hcll

Data specific to HCLL blanket concept

member	type	description
mat_lim	mat_lim (7.9.8.1.289)	Material limits specific to HCLL breeding blanket
hcll_bb	hcll_bb (7.9.8.1.260)	HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

Type of: bb_shield:hcll (4129)

7.9.8.1.260 hcll_bb

HCLL breeding blanket. Radially, the blanket is divided in 4 layers: 1: First Wall, 2 : breeder zone, 3 : back plates, 4 : manifolds

member	type	description
bb_lifetime	float (7.9.8.1.2)	Breeding blanket lifetime [years]; Scalar
he_inl_t	float (7.9.8.1.2)	Inlet temperature (to the bb module) [K]; Scalar
he_fr	float (7.9.8.1.2)	Coolant mass flow rate in ”the” reference bb module (or in each module) [Kg/s];

member	type	description
he_inl_p	float (7.9.8.1.2)	Helium inlet pressure [Pa]; Scalar
loca_des_p	float (7.9.8.1.2)	Box design pressure (coincident He circuit design pressure) [Pa]; Scalar
he_dp	float (7.9.8.1.2)	Coolant pressure drops in the breeding blankets [Pa]; Scalar
lipb_dp	float (7.9.8.1.2)	Pb-15.7Li pressure drops in the bb [Pa]; Scalar
react	react (7.9.8.1.373)	In the reactor region
inboard	hcllbb_specs (7.9.8.1.261)	Inboard
outboard	hcllbb_specs (7.9.8.1.261)	Outboard

Type of: hcll:hcll_bb (4362)

7.9.8.1.261 hcllbb_specs

Inboard

member	type	description
mass	vecflt_type (7.9.8.1.18)	Mass of inboard or outboard breeding blanket modules (located at equatorial midplane if only one considered) [Kg]; Vector(nmodules)
dr	vecflt_type (7.9.8.1.18)	Inboard or outboard breeding blanket radial build giving the thickness of each layer [m]; Vector(nlayers)
mat	vecflt_type (7.9.8.1.18)	Inboard or outboard breeding blanket materials; Vector(nlayers)
composition	matflt_type (7.9.8.1.15)	Inboard or outboard breeding blanket radial build giving for each layer (1: First Wall protective layer, 2: First Wall, 3 : breeder zone, 4 : back plates, 5 : manifolds), the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Matrix(nlayers(=5), max_nmaterials)
mod_geom	bb_geometry (7.9.8.1.85)	Geometrical parameters of "the" reference region blanket module
mod_neutr	mode_neutr (7.9.8.1.299)	Neutrons "effects"
mod_therm	mode_therm (7.9.8.1.301)	Thermical parameters
mod_th_hyd	mode_th_hyd (7.9.8.1.300)	hydrodynamics parameters
mod_mech	mode_mech (7.9.8.1.298)	Mechanical parameters
mod_lipb	mode_lipb (7.9.8.1.297)	Pb-15.7Li "effects"
mod_tritium	mode_tritium (7.9.8.1.302)	Tritium parameters

Type of: hcll_bb:inboard (4363) I hcll_bb:outboard (4363)

7.9.8.1.262 holes

Structure to describe the placing and properties of the holes

member	type	description
n_holes	integer (7.9.8.1.3)	Number of holes on each wall;
coordinates	coordinates (7.9.8.1.130)	Poloidal and Toroidal coordinates of the center of each hole;
width	width (7.9.8.1.535)	Angular width of each in the poloidal and toroidal direction;
eta	vecflt_type (7.9.8.1.18)	Resistivity of each hole [ohm.m]; Vector (n_holes)

Type of: mhd_res_wall2d:holes (4397)

7.9.8.1.263 identifier

Standard type for identifiers. The three fields: id, flag and description are all representations of the same information. Associated with each application of this identifier-type, there should be a translation table defining the three fields for all objects to be identified.

member	type	description
id	string (7.9.8.1.4)	Short string identifier
flag	integer (7.9.8.1.3)	Integer identifier
description	string (7.9.8.1.4)	Verbose description of identifier

Type of: amns_processType:quality (4179) I composition_neutralscomp:type (4229) I compositions_type:signature (4230) I coredelta_values:deltaid (4235) I corefast_values:fastid (4237) I coreneutrals_atomlist:ionimptype (4252) I coresource_values:sourceid (4256) I coretransp_values:transportid (4260) I dist_sources_reference:type (4292) I enum_instance:type (4319) I fast_thermal_separation_filter:method (4331) I mhd_ideal_wall2d:walltype (4394) I mhd_res_wall2d:walltype (4397) I msediag_polarization:type (4409) I msediag_stokes:type (4414) I pellet_shape:type (4450) I reacprodType:role (4475) I reflectometry_antennas:type (4481) I reflectometry_radfield:type (4482) I simp_apert:type (4531) I species_reference:type (4542) I table:quality (4551) I temporary_nt_0dc:identifier (4555) I temporary_nt_0di:identifier (4556) I temporary_nt_0dr:identifier (4557) I temporary_nt_0ds:identifier (4558) I temporary_nt_1dc:identifier (4559) I temporary_nt_1di:identifier (4560) I temporary_nt_1dr:identifier (4561) I temporary_nt_1ds:identifier (4562) I temporary_nt_2dc:identifier (4563) I temporary_nt_2di:identifier (4564) I temporary_nt_2dr:identifier (4565) I temporary_nt_3dc:identifier (4566) I temporary_nt_3di:identifier (4567) I temporary_nt_3dr:identifier (4568) I temporary_nt_4dr:identifier (4569) I temporary_t_0dc:identifier (4571) I temporary_t_0di:identifier (4572) I temporary_t_0dr:identifier (4573) I temporary_t_0ds:identifier (4574) I temporary_t_1dc:identifier (4575) I temporary_t_1di:identifier (4576) I temporary_t_1dr:identifier (4577) I temporary_t_2dc:identifier (4578) I temporary_t_2di:identifier (4579) I temporary_t_2dr:identifier (4580) I temporary_t_3dc:identifier (4581) I temporary_t_3di:identifier (4582) I temporary_t_3dr:identifier (4583) I temporary_t_4dr:identifier (4584) I trap_type:trap_id (4596) I wall2d:wall_id (4612) I wall3d:wall_id (4614) I wall_limiter:limiter_id (4617) I wall_vessel:vessel_id (4622) I weighted_markers:variable_ids (4636)

7.9.8.1.264 impcoeff

Array over charge states for this particular impurity.

member	type	description
chargestate(:)	coefficients_neutrals (7.9.8.1.106)	Time-dependent

Type of: coreneutrals:impcoeff (4136)

7.9.8.1.265 impurities

Array of impurities.

member	type	description
nucindex	integer (7.9.8.1.3)	Index into list of nuclei; int
i_ion	integer (7.9.8.1.3)	Index of the impurity species in the ions array of structures. Vector (nimp)
nzimp	integer (7.9.8.1.3)	Number of charge states (or bundles) considered for this impurity species.
zmin	vecflt_type (7.9.8.1.18)	Minimum Z of impurity ionisation state bundle. Vector (nzimp)
zmax	vecflt_type (7.9.8.1.18)	Maximum Z of impurity ionisation state bundle. If no bundle, zmax=zmin. Vector (nzimp)
label	vecstring_type (7.9.8.1.20)	String array (nzimp) identifying impurities (e.g. C+, C+2 , C+3, C+4, C+5, C+6, ...)

Type of: compositions_type:impurities (4230)

7.9.8.1.266 impurity_type

Array(nimp). Time-dependent

member	type	description
z	matflt_type (7.9.8.1.15)	Impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
zsq	matflt_type (7.9.8.1.15)	Z^2, Square of impurity ionisation state (averaged for bundle); Time-dependent; Array2D (nrho,nzimp)
nz	matflt_type (7.9.8.1.15)	Density of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
tz	matflt_type (7.9.8.1.15)	Temperature of impurity in a given charge state [m^-3]. Time-dependent; Array2D (nrho,nzimp)
source_term	sourceimp (7.9.8.1.436)	Source term for each charge state. Time-dependent.
boundary	boundaryimp (7.9.8.1.96)	Boundary condition for each charge state. Time-dependent
transp_coef	coretransimp (7.9.8.1.155)	Transport coefficients for each charge state
flux	fluximp (7.9.8.1.234)	Fluxes of impurity particles, two definitions [m^-2.s^-1]. Time-dependent.
time_deriv	matflt_type (7.9.8.1.15)	Integral of the time derivative term of the transport equation. Time-dependent. Array2D (nrho,nzimp)
diagnostic	coreimpurediag_type (7.9.8.1.146)	NO DOCS

Type of: coreimpur:impurity (4135)

7.9.8.1.267 inj_spec

Injected species

member	type	description
amn	float (7.9.8.1.2)	Atomic mass number
zn	float (7.9.8.1.2)	Nuclear charge

Type of: nbi_unit:inj_spec (4417)

7.9.8.1.268 ions

Array of main plasma ions.

member	type	description
nucindex	integer (7.9.8.1.3)	Index into list of nuclei; int
zion	float (7.9.8.1.2)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	integer (7.9.8.1.3)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
label	string (7.9.8.1.4)	String identifying ion (e.g. H+, D+, T+, He+2, C+, ...)

Type of: compositions_type:ions (4230)

7.9.8.1.269 isoflux

Point series at which the flux is considered the same

member	type	description
position	rz1D (7.9.8.1.387)	Position of the points at which the flux is considered the same; Time-dependent; Vector (nmeas)
source	string (7.9.8.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.8.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.8.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.8.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.8.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:isoflux (4320)

7.9.8.1.270 jni

Non-inductive parallel current density [A/m^2]; Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Value of jni; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.8.1.18)	Integral from 0 to rho of jni. Time-dependent; Vector (nrho)
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: psi:jni (4472)

7.9.8.1.271 lang_derived

Structure for physics quantities derived from Langmuir probe measurements

member	type	description
source	vecstring_type (7.9.8.1.20)	Probes in probe holder used to derive measure. String vector
position	rzphi1Dexp (7.9.8.1.394)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.8.1.225)	Measured quantity. Time-dependent.

Type of: langmuirdiag:machpar (4152) I langmuirdiag:ne (4152) I langmuirdiag:te (4152)

7.9.8.1.272 lang_measure

Structure for elementary Langmuir probe measurement

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of the probe e.g. Jsatur1,Vfloat1). String vector
direction	vecstring_type (7.9.8.1.20)	Direction of the probe w.r.t. magnetic field. For Mach arrangement use 'co ' (co-field) and 'ct ' (counter field) for the pair, otherwise use 'both'. String vector
area	exp1D (7.9.8.1.225)	Effective area of probe [m^2]. Time-dependent.
position	rzphi1Dexp (7.9.8.1.394)	Position of the measurement. Time-dependent.
measure	exp1D (7.9.8.1.225)	Measured quantity. Time-dependent.

Type of: langmuirdiag:bias (4152) I langmuirdiag:jsat (4152) I langmuirdiag:potential (4152)

7.9.8.1.273 launchangles

Launching angles of the beam

member	type	description
alpha	float (7.9.8.1.2)	Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline [rad], Tan(alpha)=-k_z/k_R; Time-dependent
beta	float (7.9.8.1.2)	Toroidal launching angle between the poloidal plane and the nominal beam centerline [rad], Sin(beta)=k_phi; Time-dependent

Type of: antenna_ec:launchangles (4180)

7.9.8.1.274 launchs_parallel

Power spectrum as a function of the parallel refractive index.

member	type	description
nn_par	vecint_type (7.9.8.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_par	matflt_type (7.9.8.1.15)	Refraction index in the parallel direction, Matrix (nantenna,max_nn_par).
power	vecflt_type (7.9.8.1.18)	W/dN_par [W], Matrix(nantenna, max_nn_par). Time-dependent

Type of: spectrum:parallel (4544)

7.9.8.1.275 launchs_phi_theta

Power spectrum as a function of the refractive index in the toroidal and poloidal directions.

member	type	description
nn_phi	vecint_type (7.9.8.1.19)	Number of points for the discretization of the spectrum in the toroidal direction, Vector of integers (nantenna).
nn_theta	vecint_type (7.9.8.1.19)	Number of points for the discretization of the spectrum in the poloidal direction, Vector of integers (nantenna).
n_phi	matflt_type (7.9.8.1.15)	Refraction index in the toroidal direction, Matrix (nantenna,max_nn_phi).
n_theta	matflt_type (7.9.8.1.15)	Refraction index in poloidal direction, Matrix (nantenna,max_nn_theta).
power	array3dflt_type (7.9.8.1.7)	W/dNphi/dNtheta [W], Array (nantenna, max_nn_phi, max_nn_theta). Time-dependent

Type of: spectrum:phi_theta (4544)

7.9.8.1.276 launchs_rfbeam

Beam characteristics (RF wave description)

member	type	description
spot	launchs_rfbeam_spot (7.9.8.1.278)	Spot characteristics
phaseellipse	launchs_rfbeam_phaseellipse (7.9.8.1.277)	Phase ellipse characteristics of the spot

Type of: launchs:beam (4153)

7.9.8.1.277 launchs_rfbeam_phaseellipse

Phase ellipse characteristics of the spot

member	type	description
invcurvrad	matflt_type (7.9.8.1.15)	Inverse curvature radii for the phase ellipse [m-1], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.8.1.18)	Rotation angle for the phase ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:phaseellipse (4379)

7.9.8.1.278 launchs_rfbeam_spot

Spot characteristics

member	type	description
waist	matflt_type (7.9.8.1.15)	Waist for the spot ellipse [m], Matrix (nantenna,2). Time-dependent
angle	vecflt_type (7.9.8.1.18)	Rotation angle for the spot ellipse [rd], Vector(nantenna). Time-dependent

Type of: launchs_rfbeam:spot (4379)

7.9.8.1.279 launchsignal

member	type	description
time_launch	vecflt_type (7.9.8.1.18)	Time stamp for particular event e.g. ramp of frequency sweep (but it should not be needed since it should be tied to the cpo time !); Time-dependent
freq	vecflt_type (7.9.8.1.18)	Frequency of the injected waves (should not be needed since it is already used in the injected signal !), typical data stored experimentally; Time-dependent
amplitude	vecflt_type (7.9.8.1.18)	Amplitude of the injected waves (essential if using gaussian, already encoded in the Electric field pattern), typical data stored experimentally; Time-dependent
phase	vecflt_type (7.9.8.1.18)	Phase of the sinusoidal (e.g. voltage) signal injected in the antenna, typical data stored experimentally; Time-dependent

Type of: reflectometry_antennas:launchsignal (4481)

7.9.8.1.280 limiter_unit

Vector of limiting surfaces. Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents)

member	type	description
name	string (7.9.8.1.4)	Name or description of the limiter_unit
closed	string (7.9.8.1.4)	Identify whether the contour is closed (y) or open (n)
position	rz1D (7.9.8.1.387)	Position (R,Z coordinates) of a limiting surface. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.8.1.2)	Wall resistivity [ohm.m]; Scalar
delta	float (7.9.8.1.2)	Wall thickness [m] (Optional if a closed facing component is given but useful for simpler closed contour limiter); Time-dependent; Scalar
permeability	float (7.9.8.1.2)	Vessel relative permeability; Scalar

Type of: wall_limiter:limiter_unit (4617)

7.9.8.1.281 limits

Limits

member	type	description
fw_dpa	float (7.9.8.1.2)	max allowable displacement per atom on FW [dpa]; Scalar.
he_appm	float (7.9.8.1.2)	He concentration limit in re-welding areas [appm]; Scalar
ins_dose	float (7.9.8.1.2)	Integral radiation dose in insulator (Epoxy) [Gy] [J*Kg^-1]; Scalar
fn_flu	float (7.9.8.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar

member	type	description
dpa_cu	float (7.9.8.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
wp_nh	float (7.9.8.1.2)	Peak nuclear eating in winding pack [W*m^-3]; Scalar

Type of: bb_shield:limits (4129)

7.9.8.1.282 lineintegraldiag

General line integral diagnostic

member	type	description
datainfo	datainfo (7.9.8.1.162)	Generic information on a data item
expression	string (7.9.8.1.4)	Formal expression for the line integral to be evaluated as a function of ne, ni, Te, Ti, Zeff, Br, Bz
setup_line	setup_line (7.9.8.1.424)	Geometric description of the lines of sight
measure	exp1D (7.9.8.1.225)	Measured value. Time-dependent; Vector (nchords)
codeparam	codeparam (7.9.8.1.105)	Code parameters
time	float (7.9.8.1.2)	Time [s]; Time-dependent; Scalar

7.9.8.1.283 lithmeasure

Measured values

member	type	description
ne	exp1D (7.9.8.1.225)	Electron density [m^-3]. Vector (nchannels)

Type of: lithiumdiag:measure (4154)

7.9.8.1.284 lithsetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.8.1.393)	Position of the measurement. Vector (nchannels)

Type of: lithiumdiag:setup (4154)

7.9.8.1.285 local

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Local description of the wave fields. Uses the grid in grid_2d].

member	type	description
e_plus	array3dflt_type (7.9.8.1.7)	Magnitude of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_plus_ph	array3dflt_type (7.9.8.1.7)	Phase of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus	array3dflt_type (7.9.8.1.7)	Magnitude of right hand polarised component of the wave electric field [v/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_minus_ph	array3dflt_type (7.9.8.1.7)	Phase of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_norm	array3dint_type (7.9.8.1.8)	Magnitude of wave electric field normal to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
enorm_ph	array3dflt_type (7.9.8.1.7)	Phase of wave electric field normal to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm	array3dflt_type (7.9.8.1.7)	Magnitude of wave electric field tangent to a flux surface [V/m]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_binorm_ph	array3dflt_type (7.9.8.1.7)	Phase of wave electric field tangent to a flux surface [rad]; Time-dependent; 3D (ntor, ndim1, ndim2)
e_para	array3dflt_type (7.9.8.1.7)	Magnitude of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
e_para_ph	array3dflt_type (7.9.8.1.7)	Phase of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm	array3dflt_type (7.9.8.1.7)	Magnitude of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_norm_ph	array3dflt_type (7.9.8.1.7)	Phase of wave magnetic field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

member	type	description
b_binorm	array3dflt_type (7.9.8.1.7)	Magnitude of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_binorm_ph	array3dflt_type (7.9.8.1.7)	Phase of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para	array3dflt_type (7.9.8.1.7)	Magnitude of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
b_para_ph	array3dflt_type (7.9.8.1.7)	Phase of wave magnetic field parallel to the equilibrium magnetic field [rad]; Time-dependent; Array 3D (ntor, ndim1, ndim2)
k_perp	array3dflt_type (7.9.8.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, ndim1, ndim2)

Type of: fullwave:local (4340)

7.9.8.1.286 mag_axis

Magnetic axis values

member	type	description
position	rz0D (7.9.8.1.386)	Position of the magnetic axis [m]; Time-dependent; Scalar;
bphi	float (7.9.8.1.2)	Total toroidal magnetic field at the magnetic axis [T]; Time-dependent; Scalar
q	float (7.9.8.1.2)	q at the magnetic axis; Time-dependent; Scalar

Type of: global_param:mag_axis (4359)

7.9.8.1.287 magnet_iron

Magnetisation in iron segments [T]

member	type	description
mr	eqmes1D (7.9.8.1.220)	Magnetisation along the R axis [T];
mz	eqmes1D (7.9.8.1.220)	Magnetisation along the Z axis [T];

Type of: eqconstraint:magnet_iron (4320)

7.9.8.1.288 magnetise

Magnetisation M of the iron segment, assumed to be constant inside a given iron segment. Reminder : H = 1/mu0 * B - mur * M; [A/m].

member	type	description
mr	exp1D (7.9.8.1.225)	Magnetisation along the R axis [T]; Time-dependent; Vector (nsegment)
mz	exp1D (7.9.8.1.225)	Magnetisation along the Z axis [T]; Time-dependent; Vector (nsegment)

Type of: ironmodel:magnetise (4151)

7.9.8.1.289 mat_lim

Material limits specific to HCLL breeding blanket

member	type	description
cool_t_lim	float (7.9.8.1.2)	Min, max allowable He temperature [K];
steel_t_lim	float (7.9.8.1.2)	Min, max allowable steel temperature [K];
lipb_t_lim	float (7.9.8.1.2)	Min, max allowable LiPb temperature [K];

Type of: hcll:mat_lim (4362)

7.9.8.1.290 mdinfo

Information related to machine description for this entry

member	type	description

member	type	description
shot_min	integer (7.9.8.1.3)	Minimum shot number to which the machine description applies
shot_max	integer (7.9.8.1.3)	Maximum shot number to which the machine description applies
md_entry	entry_def (7.9.8.1.215)	Entry of the machine description used. NB : just for information : for the moment, no guarantee that machine description data have not been modified with respect to the data in md_entry. Machine description data are written explicitely in each CPO.

Type of

7.9.8.1.291 mhd_ideal_wall2d

Ideal wall

member	type	description
walltype	identifier (7.9.8.1.263)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
position	rz1D (7.9.8.1.387)	RZ description of the wall;

Type of: wall2d_mhd:ideal_wall (4613)

7.9.8.1.292 mhd_mode

MHD modes in the confined plasma

member	type	description
modenum	integer (7.9.8.1.3)	Toroidal mode number of the MHD mode; Scalar; Time-dependent.
growthrate	float (7.9.8.1.2)	Linear growthrate of the mode [Hz]; Scalar; Time-dependent.
frequency	float (7.9.8.1.2)	Frequency of the mode [Hz]; Scalar; Time-dependent.
plasma	mhd_plasma (7.9.8.1.293)	MHD modes in the confined plasma
vacuum	mhd_vacuum (7.9.8.1.295)	External modes

Type of: mhd:n (4156)

7.9.8.1.293 mhd_plasma

MHD modes in the confined plasma

member	type	description
psi	vecflt_type (7.9.8.1.18)	Position in poloidal flux [Wb] (without 1/2pi and such that Bp=|grad psi| /R/2/pi). Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate values (= rho_tor normalised to the value at the last grid point); Time-dependent; Vector (nrho)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate (not normalised, equivalent to rho_tor_norm) [m]; Vector (nrho). Time-dependent.
m	matflt_type (7.9.8.1.15)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
disp_perp	matcplx_type (7.9.8.1.14)	Perpendicular displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)
disp_par	matcplx_type (7.9.8.1.14)	Parallel displacement of the mode (in Fourier space) [m]; Time-dependent; Array 2D (npsi,nm)
tau_alfven	vecflt_type (7.9.8.1.18)	Alven time=R/vA=R0 sqrt(mi ni(rho))/B0 [s]; Definitions of R0, BO, mi, ni to be clarified. rho grid should be included in the MHD CPO ? Time-dependent; Vector (npsi)
tau_res	vecflt_type (7.9.8.1.18)	Resistive time = mu_0 rho*rho/1.22/eta_neo [s]; Source of eta_neo to be clarified. Time-dependent; Vector (npsi)
coord_sys	coord_sys (7.9.8.1.129)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.8.1.296)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.8.1.296)	Perturbed magnetic field (in Fourier space) [T]
v_pert	mhd_vector (7.9.8.1.296)	Perturbed velocity (in Fourier space) [m/s]
p_pert	matcplx_type (7.9.8.1.14)	Perturbed pressure (in Fourier space) [Pa]; Time-dependent; Array 2D (npsi,nm)
rho_mass_per	matcplx_type (7.9.8.1.14)	Perturbed mass density (in Fourier space) [kg/m^3]; Time-dependent; Array 2D (npsi,nm)
temp_per	matcplx_type (7.9.8.1.14)	Perturbed temperature (in Fourier space) [eV]; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_mode:plasma (4395)

7.9.8.1.294 mhd_res_wall2d

Resistive wall

member	type	description
walltype	identifier (7.9.8.1.263)	Tag the type of wall to be used, 0 (conformal) or 1 (free)
delta	float (7.9.8.1.2)	Wall thickness [m]; Scalar
eta	float (7.9.8.1.2)	Wall resistivity [ohm.m]; Scalar
npoloidal	integer (7.9.8.1.3)	Number of poloidal coordinates for each wall (dimension of R and Z);
position	rz1D (7.9.8.1.387)	RZ description of the wall; wall coordinates are defined at a middle line (line passing through the middle of the real wall as defined by thickness parameter delta)
holes	holes (7.9.8.1.262)	Structure to describe the placing and properties of the holes

Type of: wall2d_mhd:res_wall (4613)

7.9.8.1.295 mhd_vacuum

External modes

member	type	description
m	matflt_type (7.9.8.1.15)	Poloidal mode number; Time-dependent; Array2D (npsi,nm)
coord_sys	coord_sys (7.9.8.1.129)	flux surface coordinate system on a square grid of flux and angle
a_pert	mhd_vector (7.9.8.1.296)	Pertubed vector potential (in Fourier space) [T.m]
b_pert	mhd_vector (7.9.8.1.296)	Perturbed magnetic field (in Fourier space) [T]

Type of: mhd_mode:vacuum (4395)

7.9.8.1.296 mhd_vector

Vector structure for MHD CPO

member	type	description
coord1	matcplx_type (7.9.8.1.14)	Fourier components of first coordinate; Time-dependent; Array 2D (npsi,nm)
coord2	matcplx_type (7.9.8.1.14)	Fourier components of second coordinate; Time-dependent; Array 2D (npsi,nm)
coord3	matcplx_type (7.9.8.1.14)	Fourier components of third coordinate; Time-dependent; Array 2D (npsi,nm)

Type of: mhd_plasma:a_pert (4396) I mhd_plasma:b_pert (4396) I mhd_plasma:v_pert (4396) I mhd_vacuum:a_pert (4398) I mhd_vacuum:b_pert (4398)

7.9.8.1.297 mode_lipb

Pb-15.7Li ”effects”

member	type	description
lp_rec_day	float (7.9.8.1.2)	nb of Pb-15.7Li recirculation per day [Pa]; Scalar
bb_lp_fr	vecflt_type (7.9.8.1.18)	Pb-15.7Li mass flow rate in ”the” bb module (or in each bb module) [Kg/s]; Vector(nmodules)
lp_inl_p	float (7.9.8.1.2)	Pb-15.7Li inlet pressure [Pa]; Scalar
bu_dp_lp	float (7.9.8.1.2)	Pb-15.7Li pressure drops in the breeder unit [Pa]; Scalar
man_dp_lp	float (7.9.8.1.2)	Pb-15.7Li pressure drops in the bb manifolds [Pa]; Scalar
tot_dp_lp	float (7.9.8.1.2)	Pb-15.7Li total pressure drops [Pa]; Scalar
bu_lp_ave_t	float (7.9.8.1.2)	Pb-15.7Li average temperature in a breeder unit [K]; Scalar
bu_lp_max_t	float (7.9.8.1.2)	Pb-15.7Li max temperature in a breeder unit [K]; Scalar

Type of: hcllbb_specs:mod_lipb (4364)

7.9.8.1.298 mode_mech

Mechanical parameters

member	type	description
fw_min_ts_mg	float (7.9.8.1.2)	Min margin to tensile stress limit in the first wall; Scalar
fw_min_bd_mg	float (7.9.8.1.2)	Min margin to banding stress limit in the first wall; Scalar

member	type	description
sg_min_ts_mg	float (7.9.8.1.2)	Min margin to tensile stress limit in the stiffening grid; Scalar
sg_min_bd_mg	float (7.9.8.1.2)	Min margin to bending stress limit in the stiffening grid; Scalar
cp_min_ts_mg	float (7.9.8.1.2)	Min margin to tensile stress limit in the cooling plate; Scalar
cp_min_bd_mg	float (7.9.8.1.2)	Min margin to bending stress limit in the cooling plate; Scalar
min_ts_mg_ac	float (7.9.8.1.2)	Min tensile margin in accidental conditions; Scalar
min_bd_mg_ac	float (7.9.8.1.2)	Min bending margin in accidental conditions; Scalar

Type of: hcllbb_specs:mod_mech (4364)

7.9.8.1.299 mode_neutr

Neutrons "effects"

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius position at wich power density is calculated [m]; Vector(nr)
pd_rad	vecflt_type (7.9.8.1.18)	Power density distribution in radial direction [W/m^3]; Vector(nr)
lipb_coef_pd	vecflt_type (7.9.8.1.18)	Pb-15.7Li power density distribution in radial direction: coefficients of bi-exponential law if this one is used [W/m^-3,W/m^-3,m^-1,m^-1]; Matrix
steel_coef_pd	vecflt_type (7.9.8.1.18)	Eurofer power density distribution in radial direction: coefficients of bi-exponential law if this one is used
pow_exchange	power_exchange (7.9.8.1.365)	NO DOCS

Type of: hcllbb_specs:mod_neutr (4364)

7.9.8.1.300 mode_th_hyd

hydrodynamics parameters

member	type	description
fw_dp_he	float (7.9.8.1.2)	Pressure drops in the first wall [Pa]; Scalar
sg_dp_he	float (7.9.8.1.2)	Pressure drops in the stiffening grid [Pa]; Scalar
cp_dp_he	float (7.9.8.1.2)	Pressure drops in the cooling plates [Pa]; Scalar
man_dp_he	float (7.9.8.1.2)	Pressure drops in the manifolds [Pa]; Scalar
tot_dp_he	float (7.9.8.1.2)	Total pressure drops in bb module [Pa]; Scalar
bp_dp_he	float (7.9.8.1.2)	Total pressure drops in the by pass (if any) [Pa]; ScalarScalar
circ_dp_he	float (7.9.8.1.2)	Pressure drops in one He circuit [Pa]; Scalar

Type of: hcllbb_specs:mod_th_hyd (4364)

7.9.8.1.301 mode_therm

Thermical parameters

member	type	description
he_fr	float (7.9.8.1.2)	Coolant mass flow rate in "the" reference bb (inboard or outboard) module [Kg/s]; Scalar
perc_bp_he	float (7.9.8.1.2)	% of Helium going through the bypass (set to 0 if not otherwise specified)
he_out_t	float (7.9.8.1.2)	Outlet temperature (from the bb module) [K]; Scalar
fw_he_out_t	float (7.9.8.1.2)	First wall outlet temperature [K]; Scalar
sg_he_out_t	float (7.9.8.1.2)	Stiffening grid outlet temperature [K]; Scalar
cp_he_out_t	float (7.9.8.1.2)	Cooling plates outlet temperature [K]; Scalar
fw_st_max_t	float (7.9.8.1.2)	First wall eurofer maximum temperature [K]; Scalar
sg_st_max_t	float (7.9.8.1.2)	Stiffening grid eurofer maximum temperature [K]; Scalar
cp_st_max_t	float (7.9.8.1.2)	Cooling plates eurofer maximum temperature [K]; Scalar

Type of: hcllbb_specs:mod_therm (4364)

7.9.8.1.302 mode_tritium

Tritium parameters

member	type	description
t_conc_lipb	float (7.9.8.1.2)	Tritium concentration in Pb-15.7Li; Scalar
t_conc_he	float (7.9.8.1.2)	Tritium concentration in He; Scalar

Type of: hcllbb_specs:mod_tritium (4364)

7.9.8.1.303 modules

Modules description. NB there are nmodules per antenna, distributed among nma_phi toroidal positions and nma_theta poloidal positions

member	type	description
nma_theta	integer (7.9.8.1.3)	Number of modules per antenna in the poloidal direction.
nma_phi	integer (7.9.8.1.3)	Number of modules per antenna in the toroidal direction.
ima_theta	vecint_type (7.9.8.1.19)	Position index of the module in the poloidal direction (from low theta to high theta, i.e. from bottom to top if the antenna is on LFS). Vector of integers (nmodules).
ima_phi	vecint_type (7.9.8.1.19)	Position index of the module in the toroidal direction (from low phi to high phi, counter-clockwise when seen from above). Vector of integers (nmodules).
sm_theta	float (7.9.8.1.2)	Spacing between poloidally neighboring modules [m]
amplitude	exp1D (7.9.8.1.225)	Amplitude of the TE10 mode injected in the module [W], Vector exp1d (nmodules). Time-dependent
phase	exp1D (7.9.8.1.225)	Phase of the TE10 mode injected in the module [radians], Vector exp1d (nmodules). Time-dependent
waveguides	waveguides (7.9.8.1.525)	Waveguides description

Type of: antennalh_setup:modules (4184)

7.9.8.1.304 msediag_emiss_chord

MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight.

member	type	description
volume	float (7.9.8.1.2)	Emitting volume (m^-3). Scalar
setup	rzphi1D (7.9.8.1.393)	Description of the line of sight (for the moment a line - not a cone of sight). Vector (npos).
polarization(:)	msediag_polarization (7.9.8.1.306)	Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.
quantiaxis	vecflt_type (7.9.8.1.18)	Quantization axis for the line of sight (eR,ePhi,eZ). It is a unitary vector associated to the line of sight and to the emissivity, e.g. the Lorentzian electric field direction); Vector (3). Time-dependent

Type of: msediag_emissivity:emiss_chord (4408)

7.9.8.1.305 msediag_emissivity

Emissivity characteristics.

member	type	description
wavelength	vecflt_type (7.9.8.1.18)	Wavelength [m]. Vector (nwavelength)
emiss_chord(:)	msediag_emiss_chord (7.9.8.1.304)	MSE Emissivity characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the emissivity(wavelength,pos) for each polarization state along the line of sight, the quantization axis and the emission volume. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:emissivity (4543)

7.9.8.1.306 msediag_polarization

Polarized and unpolarized emissivity of the relevant MSE spectral lines. Structure Array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.8.1.263)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
spec_emiss	matflt_type (7.9.8.1.15)	Spectral emissivity of a particular polarization (Wm^-3sr-^1). Matrix (npos,nwavelength). Time-dependent

Type of: msediag_emiss_chord:polarization (4407)

7.9.8.1.307 msediag_radia_chord

MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight.

member	type	description
setup	msediag_setup (7.9.8.1.309)	Geometry for the observation line of sight
stokes(:)	msediag_stokes (7.9.8.1.311)	Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.
totradiance	exp1D (7.9.8.1.225)	Total Radiance integrated along the lines of sight (Wm^-2sr-^1). Vector (nwavelength)

Type of: msediag_radiance:radia_chord (4411)

7.9.8.1.308 msediag_radiance

Emissivity characteristics.

member	type	description
wavelength	exp1D (7.9.8.1.225)	Wavelength [m]. Vector (nwavelength)
radia_chord(:)	msediag_radia_chord (7.9.8.1.307)	MSE radiance characterization. This structure is used for each line of sight of the MSE setup and contains the geometry of the line of sight, the radiance(wavelength) for each polarization state, the quantization axis. Replicate the structure for each line of sight. Time-dependent

Type of: spectral:radiance (4543)

7.9.8.1.309 msediag_setup

Geometry for the observation line of sight

member	type	description
pivot_point	rzphi0D (7.9.8.1.392)	Pivot point of mse line of sight. Scalar
horchordang	float (7.9.8.1.2)	Angle [rad] of horizontal projection of mse line of sight with poloidal cross section (0 for HFS to LFS trajectory - see Convention_angles_interfdiag.pdf) [rad]. Scalar
verchordang	float (7.9.8.1.2)	Angle of mse line of sight with vertical axis (0 for bottom-top trajectory, Pi for top-bottom trajectory - see Convention_angles_interfdiag.pdf) [rad]; Scalar
second_point	rzphi0D (7.9.8.1.392)	Second point defining the mse line of sight together with the pivot_point. Scalar

Type of: msediag_radia_chord:setup (4410)

7.9.8.1.310 msediag_setup_polarimetry

diagnostic setup information

member	type	description
rzgamma	rzphidrdzdphi1D (7.9.8.1.398)	Position and width of the intersection between beam and line of sight. Vectors (nchords)
geom_coef	matflt_type (7.9.8.1.15)	Geometric coefficients (9) describing the angle between beam and line of sight; The first dimension contains succesively : numerator, coefficients of BZ, BR, Bphi, ER; denominator, coefficients of BZ, BR, Bphi, ER, EZ; Matrix (9,nchords). In versions of the data structure before 4.08, there were only 6 coefficients namely : numerator, coefficients of BZ, BR, Bphi; denominator, coefficients of BZ, BR, Bphi.

Type of: polarimetry:setup (4465)

7.9.8.1.311 msediag_stokes

Stokes vector (I,U,S,V) as a function of the wavelength for the polarized and unpolarized relevant MSE spectral lines. Replicate for each spectral component. Structure array (ncomp). Time-dependent.

member	type	description
type	identifier (7.9.8.1.263)	Type of the polarization. 0 for unpolarised, 1 for Pi, 2 for sigma^+ and 3 for sigma^-
vector	matflt_type (7.9.8.1.15)	Stokes vector (I,U,S,V) as a function of the wavelength. Vector (4,nwavelength).

Type of: msediag_radia_chord:stokes (4410)

7.9.8.1.312 nbi_nbi_unit_wall

Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.

member	type	description
surface	nbi_nbi_unit_wall_surface (7.9.8.1.313)	A collimating solid surface described by a polygon; no particle can pass through this surface
collimator(:)	flat_polygon (7.9.8.1.230)	Vector of collimating holes (openings). Each hole has to be flat, i.e. it lies on a surface. Particles can only cross this surface by passing through the hole. To describe the hole we first construct a coordinate system on the surface by defining the original and two basis vectors in (x,y,z) space. The polyon is then represented as the origin, plus a linear combination of the two basis vectors using coord1 and coord2. As an example, a rectangle with two of the corners given by "origin+basis1" and "origin+basis2" can be described using coord1=[1,0,-1,0] and coord2=[0,1,0,-1].

Type of: nbi_unit:wall (4417)

7.9.8.1.313 nbi_nbi_unit_wall_surface

A collimating solid surface described by a polygon; no particle can pass through this surface

member	type	description
triangle(:)	trianglexyz (7.9.8.1.494)	Triangular wall surface described by its three corners: point1, point2, and point3. Vector(n_triangles)
rectangle(:)	rectanglexyz (7.9.8.1.374)	Rectangular wall surface described by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point should be calculated from the other three as point00=point01+poin10-point11. Vector(n_rectangles)

Type of: nbi_nbi_unit_wall:surface (4415)

7.9.8.1.314 nbi_unit

Vector of Neutral Beam Injector units. The NBI system should be separated in to the individually power strucutres. Structure array(nunits). Time-dependent

member	type	description
name	string (7.9.8.1.4)	Name of the neutral beam injector
inj_spec	inj_spec (7.9.8.1.267)	Injected species
pow_unit	exp0D (7.9.8.1.224)	Power delivered by an NBI unit [W]; Time-dependent
inj_eng_unit	exp0D (7.9.8.1.224)	Full injection energy of a unit [ev]; Time-dependent
beamcurrfrac	exp1D (7.9.8.1.225)	Beam current fractions; beamcurrfrac(j) is the fraction of the beam current from beam neutrals with the j:th harmonic energy, inj_eng_unit. Vector(3); Time-dependent
beampowrfrac	exp1D (7.9.8.1.225)	Beam power fractions; beampowrfrac(j) is the fraction of the beam power from beam neutrals with the j:th harmonic energy, inj_eng_unit;. Vector(3); Time-dependent
beamletgroup(:)	beamletgroup (7.9.8.1.87)	Group of beamlets with common vertical and horizontal focal point. If there are no common focal points, then select small groups of beamlets such that a focal point description of the beamletgroup provides a fair description.
wall	nbi_nbi_unit_wall (7.9.8.1.312)	Description of the wall components in the NBI system that limits the beam spatial width of the beam. The wall is here described a superposition of surface segments and collimating holes.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: nbi:nbi_unit (4158)

7.9.8.1.315 ne_transp

Transport coefficients for electron density equation. Time-dependent.

member	type	description
diff_eff	matflt_type (7.9.8.1.15)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
vconv_eff	matflt_type (7.9.8.1.15)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Matrix (nrho,3)
flux	vecflt_type (7.9.8.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.8.1.329)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ne_transp (4260)

7.9.8.1.316 neoclassic_impurity

Array(nimp). Time-dependent

member	type	description
utheta_z	matflt_type (7.9.8.1.15)	Ion poloidal flow for various charge states [m/s]. Time-dependent. Matrix(nrho,nzimp).

Type of: neoclassic:impurity (4159)

7.9.8.1.317 neut_results

Neutronic results

member	type	description
tbr_bk	float (7.9.8.1.2)	Resulting global breeding blanket tritium breeding ratio; Scalar
tbr_bk_inb	float (7.9.8.1.2)	Resulting inboard breeding blanket Tritium Breeding Ratio [-]; Scalar
tbr_bk_outb	float (7.9.8.1.2)	Resulting outboard breeding blanket Tritium Breeding Ratio [-]; Scalar
me_bk	float (7.9.8.1.2)	Energy multiplication factor in breeding blanket; Scalar
me_shield	float (7.9.8.1.2)	Energy multiplication factor in shield; Scalar
he_appm_res	float (7.9.8.1.2)	He production in areas needing to be rewelded; Scalar
ins_dose_max	float (7.9.8.1.2)	Integral radiation dose in insulator (Epoxy) [J*Kg^-1]; Scalar
fn_flu_max	float (7.9.8.1.2)	Peak fast neutron fluence (E¿0.1 MeV) to the Nb3Sn superconductor [m^-2]; Scalar
dpa_cu_max	float (7.9.8.1.2)	Peak displacement damage to copper stabilizer [dpa]; Scalar
fn_flux_bz	float (7.9.8.1.2)	Fast neutron flux in breeding zone inboard [m^2.s^-1]; Scalar
fn_flux_bp	float (7.9.8.1.2)	Fast neutron flux in backplate inboard [m^2.s^-1]; Scalar
fn_flux_man	float (7.9.8.1.2)	Fast neutron flux in manifold inboard [m^2.s^-1]; Scalar
fn_flux_sh	float (7.9.8.1.2)	Fast neutron flux in shield inboard [m^2.s^-1]; Scalar
p_nh_bk	float (7.9.8.1.2)	Total nuclear heating in blanket [W]; Scalar
p_nh_sh	float (7.9.8.1.2)	Total nuclear heating in shield [W]; Scalar

Type of: bb_shield:neut_results (4129)

7.9.8.1.318 neutral_complex_type

Profiles derived from the fields solved in the transport equations, or from experiment. Array(nneut). Time-dependent

member	type	description
neutraltype(:)	coreneutrals_neutraltype (7.9.8.1.150)	Array (ntype) over neutral types. Time-dependent.
prad0	vecflt_type (7.9.8.1.18)	Power radiated by neutrals [W.m^-3]. Vector (nrho). Time-dependent.

Type of: coreneutrals:profiles (4136)

7.9.8.1.319 neutro_resul

Neutronic results

member	type	description
nwl_max	float (7.9.8.1.2)	Maximum neutron wall load (on equatorial outboard module) [W*m^-2]; Scalar
nwl_pol_prof	vecflt_type (7.9.8.1.18)	NWL scaling factor coefficient for each bb module; Vector(nmodules)

Type of: bb:neutro_resul (4186)

7.9.8.1.320 ni_transp

Transport coefficients for ion density equation. Time-dependent.

member	type	description
diff_eff	array3dflt_type (7.9.8.1.7)	Effective diffusivity [m^2.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
vconv_eff	array3dflt_type (7.9.8.1.7)	Effective convection [m.s^-1]. The last index of the array describes which multiplier should be applied to the particule flux when adding its contribution in the expression of the heat flux : position 1 is multiplied by 0, 2 is multiplied by 3/2, 3 is multiplied by 5/2. The total particle flux (for the particle transport equation) is obtained as the sum over the three positions. Time-dependent. Array3d (nrho,nion,3)
flux	matflt_type (7.9.8.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.8.1.330)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ni_transp (4260)

7.9.8.1.321 ntm_mode

List of the various NTM modes appearing during the simulation. If a mode appears several times, use several indices in this arra of structure with the same m,n values. All descendant nodes are marked as Time-dependent for technical reasons, to allow the size of the mode AoS to vary.

member	type	description
m	integer (7.9.8.1.3)	Poloidal mode number. Time-dependent.
n	integer (7.9.8.1.3)	Toroidal mode number. Time-dependent.
onset(:)	ntm_mode_onset (7.9.8.1.326)	NTM onset characteristics. Array of structure(nevent). Time-dependent
full_evol(:)	ntm_mode_full_evol (7.9.8.1.324)	Detailed NTM evolution on a finer timebase than the CPO timebase. Array of structure(nevent). Time-dependent.
evolution	ntm_mode_evolution (7.9.8.1.322)	NTM evolution corresponding to the CPO timebase. Time-dependent.

Type of: ntm:mode (4160)

7.9.8.1.322 ntm_mode_evolution

NTM evolution corresponding to the CPO timebase. Time-dependent.

member	type	description
w	float (7.9.8.1.2)	Full width of the mode [m]. Time-dependent.
dwdt	float (7.9.8.1.2)	Time derivative of the full width of the mode [m/s]. Time-dependent.
phase	float (7.9.8.1.2)	Phase of the mode [rad]. Time-dependent.
dphasedt	float (7.9.8.1.2)	Time-derivative of the phase of the mode [rad]. Time-dependent.
frequency	float (7.9.8.1.2)	Frequency of the mode [Hz]. Time-dependent.
dfrequencydt	float (7.9.8.1.2)	Time derivative of the frequency of the mode [Hz]. Time-dependent.
island	ntm_mode_evolution_island (7.9.8.1.323)	Island description

member	type	description
deltaw_value	vecflt_type (7.9.8.1.18)	Vector(ntype). Time-dependent.
deltaw_name	vecstring_type (7.9.8.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	vecflt_type (7.9.8.1.18)	Vector(ntype_torque). Time-dependent.
torque_name	vecstring_type (7.9.8.1.20)	Name of the torque contribution. String vector (ntype). Time-dependent.
delta_diff	vecflt_type (7.9.8.1.18)	Extra diffusion coefficient for Te, ne, Ti equation. Vector(nequation). Time-dependent.
description	string (7.9.8.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	float (7.9.8.1.2)	[m]. Time-dependent.

Type of: ntm_mode:evolution (4424)

7.9.8.1.323 ntm_mode_evolution_island

Island description

member	type	description
geometry	vecflt_type (7.9.8.1.18)	Description of island geometry [?]. Vector(nradial). Time-dependent.
coord_values	vecflt_type (7.9.8.1.18)	Radial coordinate values [?]. Vector(nradial). Time-dependent.
coord_desc	string (7.9.8.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_evolution:island (4425)

7.9.8.1.324 ntm_mode_full_evol

Detailed NTM evolution on a finer timebase than the CPO timebase. Time-dependent.

member	type	description
time_evol	vecflt_type (7.9.8.1.18)	Time array used to describe the detailed mode evolution which can be different from the CPO timebase [s]. Vector(ntime_evol). Time-dependent.
w	vecflt_type (7.9.8.1.18)	Full width of the mode [m]. Vector(ntime_evol). Time-dependent.
dwdt	vecflt_type (7.9.8.1.18)	Time derivative of the full width of the mode [m/s]. Vector(ntime_evol). Time-dependent.
phase	vecflt_type (7.9.8.1.18)	Phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
dphasedt	vecflt_type (7.9.8.1.18)	Time-derivative of the phase of the mode [rad]. Vector(ntime_evol). Time-dependent.
frequency	vecflt_type (7.9.8.1.18)	Frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
dfrequencydt	vecflt_type (7.9.8.1.18)	time derivative of the frequency of the mode [Hz]. Vector(ntime_evol). Time-dependent.
island	ntm_mode_full_evol_island (7.9.8.1.325)	Island description
deltaw_value	matflt_type (7.9.8.1.15)	Matrix(ntype, ntime_evol). Time-dependent.
deltaw_name	vecstring_type (7.9.8.1.20)	Name of the deltaw contribution. String vector (ntype). Time-dependent.
torque_value	matflt_type (7.9.8.1.15)	Matrix(ntype_torque, ntime_evol). Time-dependent.
torque_name	vecstring_type (7.9.8.1.20)	Name of the torque contribution. String vector (ntype_torque). Time-dependent.
delta_diff	matflt_type (7.9.8.1.15)	Extra diffusion coefficient for Te, ne, Ti equation. Matrix(nequation, ntime_evol). Time-dependent.
description	string (7.9.8.1.4)	How the mode evolution is calculated. Time-dependent.
rho_tor	vecflt_type (7.9.8.1.18)	[m]. Vector(ntime_evol) Time-dependent.

Type of: ntm_mode:full_evol (4424)

7.9.8.1.325 ntm_mode_full_evol_island

Island description

member	type	description
geometry	matflt_type (7.9.8.1.15)	Description of island geometry [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_values	matflt_type (7.9.8.1.15)	Radial coordinate values [?]. Matrix(nradial, ntime_evol). Time-dependent.
coord_desc	string (7.9.8.1.4)	Description of flux label, use the same for all islands. Time-dependent.

Type of: ntm_mode_full_evol:island (4427)

7.9.8.1.326 ntm_mode_onset

NTM onset characteristics. Time-dependent

member	type	description
w_seed	float (7.9.8.1.2)	Seed island full width [m]. Time-dependent.
time_onset	float (7.9.8.1.2)	Onset time [s]. Time-dependent.
time_offset	float (7.9.8.1.2)	Offset time [s] (when a mode disappears). If the mode reappears later in the simulation, use another index of the mode array of structure. Time-dependent.
phase	float (7.9.8.1.2)	Phase of the mode at onset [rad]. Time-dependent.
description	string (7.9.8.1.4)	Cause of the mode onset. Time-dependent.

Type of: ntm_mode:onset (4424)

7.9.8.1.327 nuclei

Array of nuclei considered.

member	type	description
zn	float (7.9.8.1.2)	Nuclear charge [units of elementary charge];
amn	float (7.9.8.1.2)	Mass of atom [amu]
label	string (7.9.8.1.4)	String identifying element (e.g. H, D, T, He, C, ...)

Type of: compositions_type:nuclei (4230)

7.9.8.1.328 objects

Definition of space objects (nodes, edges, faces, cells, ...).; A space object of dimension n is defined; by enumerating the (n-1)-dimensional space objects defining its boundaries

member	type	description
boundary	matint_type (7.9.8.1.16)	Lists of (n-1)-dimensional space objects defining the boundary of an n-dimensional space object.; Matrix(number of objects of dimension n, maximum number of boundary objects).; First dimension: object index, second dimension: boundary object index
neighbour	array3dint_type (7.9.8.1.8)	Connectivity information. Array (number of objects, maximum number of boundaries per object, maximum number of neighbours per boundary).; Stores the indices of the n-dimensional objects adjacent to the given n-dimensional object.;An object can possibly have multiple neighbours on every boundary.; First dimension: object index, second dimension: boundary index, third dimension: neighbour index on the boundary.
geo	array4dflt_type (7.9.8.1.9)	Geometry data matrix associated with every object. Float array (number of objects, number of geometry coeff. 1, number of geometry coeff. 2, number of geometries).; The exact definition depends on the geometry type of the space (complexgrid_space.geotype).; First dimension: object index, second+third dimension: geometry coefficient matrix row+column, third dimension: geometry index (for definition of multiple geometries).
measure	matflt_type (7.9.8.1.15)	Measure of space objects, i.e. physical size (length for 1d, area for 2d, volume for 3d objects,...). [m^dim].; First dimension: object index, second dimension: geometry index

Type of: complexgrid_space:objects (4222)

7.9.8.1.329 offdiagel

Subtree containing the full transport matrix from a transport model, for the electrons. Time-dependent.

member	type	description
d_ni	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ti	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_ne	vecflt_type (7.9.8.1.18)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_te	vecflt_type (7.9.8.1.18)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_epar	vecflt_type (7.9.8.1.18)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)
d_mtor	vecflt_type (7.9.8.1.18)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Vector (nrho)

Type of: ne_transp:off_diagonal (4418) I transcoefel:off_diagonal (4592)

7.9.8.1.330 offdiagion

Subtree containing the full transport matrix from a transport model, for the various ion species

member	type	description
d_ni	array3dflt_type (7.9.8.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ti	array3dflt_type (7.9.8.1.7)	Off-Diagonal term coupling ion density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Array3d (nrho,nion,nion)
d_ne	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling electron density gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_te	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling electron temperature gradient to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_epar	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling parallel electric field to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)
d_mtor	matflt_type (7.9.8.1.15)	Off-Diagonal term coupling total toroidal momentum to the transport equation [m.^2.s^-1]. Time-dependent. Matrix (nrho,nion)

Type of: ni_transp:off_diagonal (4423) I transcoefion:off_diagonal (4594) I transcoefvtor:off_diagonal (4595)

7.9.8.1.331 omnigen_surf

List of omnigeuous magnetic surfaces to which the s-coordinates in grid_coord refer. NOTE: only used for gridcoord=3. NOTE: all guiding centre orbits intersect at least one omnigeuous (or stagnation) surfaces, i.e. the omnigeuous generalised the equitorial plane (the midplane). nsurfs=Number of omnigenous surfaces. Structure array(nregion_topo)

member	type	description
rz	rz1D (7.9.8.1.387)	(R,z) coordinates of the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector rz1d (nsurfs)
s	vecflt_type (7.9.8.1.18)	Coordinates which uniquely maps the omnigeuous magnetic surfaces (generalised equitorial plane). NOTE: only used for gridcoord=3. Vector (nsurfs)

Type of: dist_grid_info:omnigen_surf (4283)

7.9.8.1.332 orbit_global_param

Global quantities associated with an orbit.

member	type	description
orbit_type	vecint_type (7.9.8.1.19)	Identifier of orbit type: 0 trapped, -1 co-passing, + 1 counter-passing ; Time-dependent; Vector (norbits)
omega_b	vecflt_type (7.9.8.1.18)	Bounce angular frequency rad/s; Time-dependent; Vector (norbits)
omega_phi	vecflt_type (7.9.8.1.18)	Toroidal angular precession frequency [rad/s]; Time-dependent; Vector (norbits).
omega_c_av	vecflt_type (7.9.8.1.18)	Orbit averaged cyclotron frequency [rad/a]; Time-dependent; Vector(norbits).
special_pos	orbit_special_pos (7.9.8.1.335)	Special positions along an orbit (like turning points).

Type of: orbit:global_param (4161)

7.9.8.1.333 orbit_midplane

Intersections with the midplane

member	type	description
outer	orbit_pos (7.9.8.1.334)	Position at outer mid-plane
inner	orbit_pos (7.9.8.1.334)	Position at inner mid-plane

Type of: orbit_special_pos:midplane (4438)

7.9.8.1.334 orbit_pos

Complex type for orbit position (Vector)

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]; Time-dependent; Vector (norbits).
z	vecflt_type (7.9.8.1.18)	Altitude [m]; Time-dependent; Vector (norbits).
phi	vecflt_type (7.9.8.1.18)	Toroidal angle [rad]; Time-dependent; Vector (norbits).
psi	vecflt_type (7.9.8.1.18)	Position in psi [normalised poloidal flux]; Time-dependent; Vector (norbits).
theta_b	vecflt_type (7.9.8.1.18)	Poloidal Boozer angle [rad]; Time-dependent; Vector (norbits).

Type of: orbit_midplane:inner (4436) I orbit_midplane:outer (4436) I orbit_turning_pts:lower (4439) I orbit_turning_pts:upper (4439)

7.9.8.1.335 orbit_special_pos

Special positions along an orbit (like turning points).

member	type	description
midplane	orbit_midplane (7.9.8.1.333)	Intersections with the midplane
turning_pts	orbit_turning_pts (7.9.8.1.336)	Location of turning points

Type of: orbit_global_param:special_pos (4435)

7.9.8.1.336 orbit_turning_pts

Location of turning points

member	type	description
upper	orbit_pos (7.9.8.1.334)	Position at upper turning point
lower	orbit_pos (7.9.8.1.334)	Position at lower turning point

Type of: orbit_special_pos:turning_pts (4438)

7.9.8.1.337 origin

member	type	description
refpos	rzphi0D (7.9.8.1.392)	Reference point of the local coordinate system; the position of either the last quasi-optical element, or the horn antenna. Default is facing horizontally away from the central axis. The local coordinate system is cartesian, with the local z axis defining the nominal beam direction, x parallel to the global z, and y completing the right-handed local coordinate system
alpha	float (7.9.8.1.2)	Poloidal tilt angle [rad]; angle between local z axis and horizontal plane, 0 is facing outward, pi/2 is downwards, pi inwards
beta	float (7.9.8.1.2)	Toroidal tilt angle [rad]; angle between local z axis and r-z plane
gamma	float (7.9.8.1.2)	Rotation angle about local z axis [rad]

Type of: reflectometry_antennas:origin (4481)

7.9.8.1.338 param

Code parameters block passed from the wrapper to the subroutine. Does not appear as such in the data structure (in fact each string is an instance of codeparam/parameters). This is inserted in utilities.xsd for automatic declaration in the Fortran type definitions.

member	type	description
parameters	string (7.9.8.1.4)	Actual value of the code parameters (instance of coparam/parameters in XML format).
default_param	string (7.9.8.1.4)	Default value of the code parameters (instance of coparam/parameters in XML format).
schema	string (7.9.8.1.4)	Code parameters schema.

Type of

7.9.8.1.339 parameters

Parameters used to defined the grid coordiantes. Time-dependent

member	type	description
equatorial	equatorial_plane (7.9.8.1.221)	Description of the equatorial plane or any other omnigeuous surfaces. Time-dependent

Type of: source_rate:parameters (4536)

7.9.8.1.340 pellet

Description of the pellets entering the plasma at given time. Array of structures (NPEL). Time-dependent.

member	type	description
shape	pellet_shape (7.9.8.1.347)	Structure defining the shape of the pellet. Time-dependent.
elements	pellet_elements (7.9.8.1.343)	Structure defining the composition of the pellet. Time-dependent.
geometry	pellet_geometry (7.9.8.1.344)	Structure describing the geometry of the pellet path. Time-dependent.
pathprofiles	pellet_pathprofiles (7.9.8.1.346)	Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.
deposition	pellet_deposition (7.9.8.1.342)	Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

Type of: pellets:pellet (4162)

7.9.8.1.341 pellet_angles

Angles of the pellet trajectory. Time-dependent.

member	type	description
horizontal	float (7.9.8.1.2)	Angle [rad] of the horizontal projection of the path with poloidal cross section (0 for HFS , then counter clockwise looking from above), scalar. Time-dependent.
vertical	float (7.9.8.1.2)	Angle [rad] of the path with vertical axis section (0 for bottom-top trajectory, then counter clockwise), scalar. Time-dependent.

Type of: pellet_geometry:angles (4447)

7.9.8.1.342 pellet_deposition

Structure defining the pellet action on the plasma (along rho_tor). Time-dependent.

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m], array (NRHO). Time-dependent.
rho_pol	vecflt_type (7.9.8.1.18)	Poloidal flux coordinate [m], array(NRHO). Time-dependent.
delta_ne	vecflt_type (7.9.8.1.18)	Instant change of ne profile due to pellet ablation [m^-3], array(NRHO). Time-dependent.
delta_te	vecflt_type (7.9.8.1.18)	Instant change of Te profile due to pellet ablation [eV], array(NRHO). Time-dependent.
delta_ni	matflt_type (7.9.8.1.15)	Instant change of ni profile due to pellet ablation [m^-3], array (NRHO, NION). Time-dependent.
delta_ti	matflt_type (7.9.8.1.15)	Instant change of Ti profile due to pellet ablation [eV], array (NRHO, NION). Time-dependent.
delta_vtor	matflt_type (7.9.8.1.15)	Instant change of Vtor profile due to pellet ablation [m/s], array (NRHO, NION). Time-dependent.
impurity(:)	pellet_impurity (7.9.8.1.345)	Contributions to impurity array of structures (NIMP). Time-dependent

Type of: pellet:deposition (4443)

7.9.8.1.343 pellet_elements

Structure defining the composition of the pellet. Time-dependent.

member	type	description
nucindex	vecint_type (7.9.8.1.19)	Index into list of nuclei, array over elements in pellet (NATM). Time-dependent.
density	vecflt_type (7.9.8.1.18)	Material density of each element of the pellet, array over elements (NATM). Time-dependent.

member	type	description
fraction	vecflt_type (7.9.8.1.18)	Fraction of each element in the pellet, array over elements in pellet (NATM). Time-dependent.
subl_energy	vecflt_type (7.9.8.1.18)	Sublimation energy per atom, array over elements in pellet (NATM). Time-dependent.

Type of: pellet:elements (4443)

7.9.8.1.344 pellet_geometry

Structure describing the geometry of the pellet path. Time-dependent.

member	type	description
pivot_point	rzphi0D (7.9.8.1.392)	Coordinates of the pivot point for pellet trajectory. Time-dependent.
second_point	rzphi0D (7.9.8.1.392)	Coordinates of the second point for pellet trajectory. Time-dependent.
velocity	float (7.9.8.1.2)	Starting velocity of the pellet [m/s]. Scalar. Time-dependent.
angles	pellet_angles (7.9.8.1.341)	Angles of the pellet trajectory. Time-dependent.

Type of: pellet:geometry (4443)

7.9.8.1.345 pellet_impurity

Contributions to impurity array of structures (NIMP). Time-dependent

member	type	description
delta_nz	matflt_type (7.9.8.1.15)	Instant change of Nz profile (per charge state) due to pellet ablation [m^-3], array (NRHO, NZ-IMP). Time-dependent.

Type of: pellet_deposition:impurity (4445)

7.9.8.1.346 pellet_pathprofiles

Structure describing 1-D profiles of plasma and pellet along the pellet path. Time-dependent.

member	type	description
distance	vecflt_type (7.9.8.1.18)	Coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
rho_pol	vecflt_type (7.9.8.1.18)	Poloidal flux coordinate along the pellet trajectory [m], array (NPATH). Time-dependent.
velocity	vecflt_type (7.9.8.1.18)	Pellet velocity along the pellet trajectory [m/s], array (NPATH). Time-dependent.
ne	vecflt_type (7.9.8.1.18)	Electron density along the pellet trajectory [m^-3], array (NPATH). Time-dependent.
te	vecflt_type (7.9.8.1.18)	Electron temperature along the pellet trajectory [eV], array (NPATH). Time-dependent.
abl_rate	vecflt_type (7.9.8.1.18)	Ablation rate along the pellet trajectory [part/s], array (NPATH). Time-dependent.
abl_particles	vecflt_type (7.9.8.1.18)	Number of ablated particles along the pellet trajectory [part], array (NPATH). Time-dependent.
delta_drift	vecflt_type (7.9.8.1.18)	Radial displacement due to ExB drifts along the pellet trajectory [m], array (NPATH). Time-dependent.
position	rzphi1D (7.9.8.1.393)	Coordinates of the pellet trajectory line, array (NPATH). Time-dependent.

Type of: pellet:pathprofiles (4443)

7.9.8.1.347 pellet_shape

Structure defining the shape of the pellet. Time-dependent.

member	type	description
type	identifier (7.9.8.1.263)	Identifier for the shape of the pellet: 1-spherical; 2-cylindrical; 3-rectangular; 4-generic. Time-dependent.
dimensions	vecflt_type (7.9.8.1.18)	Vector specifying the dimensions of the pellet following the order for predefined shapes. Spherical pellets: dimensions(1) is the radius [m] of the pellet; Cylindrical pellets: dimensions(1) is the radius [m] and dimensions(2) is the height [m] of the cylinder; Rectangular pellets: dimensions(1) is the height [m], dimensions(2) is the width [m] and dimensions(3) is the length [m]; Time-dependent.

Type of: pellet:shape (4443)

7.9.8.1.348 permeability

Permeability model (can be different for each iron segment)

member	type	description
b	matflt_type (7.9.8.1.15)	List of B values for description of the mur(B) dependence [T]; Matrix (nsegment,nB)
mur	matflt_type (7.9.8.1.15)	Relative permeability mur(B) [dimensionless]; Matrix (nsegment,nB)

Type of: desc_iron:permeability (4268)

7.9.8.1.349 pfcircuits

Circuits, connected to multiple coils and to multiple supplies, defining the current and voltage relationships in the system

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of circuit, array of strings (ncircuits)
id	vecstring_type (7.9.8.1.20)	ID of circuit, array of strings (ncircuits)
type	vecstring_type (7.9.8.1.20)	Type of circuit, array of strings (ncircuits)
nnodes	vecint_type (7.9.8.1.19)	Number of nodes used to describe a circuit. Vector (ncircuits)
connections	array3dint_type (7.9.8.1.8)	Description of the supplies and coils connections (nodes) across each circuit. Array 3D (ncircuits,max_nnodes,2*ncomponents), describing for each node which component are connected to it (1 if connected, 0 otherwise). There are 2 sides at each component, thus 2*ncomponents as the size of the third dimension, listing first all supplies, then all coils (in the same order as listed in PFSUPPLIES and PFCOILS). An example can be found in the data structure documentation PFconnections.pdf

Type of: pfsystems:pfcircuits (4163)

7.9.8.1.350 pfcoils

Active poloidal field coils

member	type	description
desc_pfcoils	desc_pfcoils (7.9.8.1.166)	Description of the coils
coilcurrent	exp1D (7.9.8.1.225)	Circuit feed current in the coil, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (ncoils)
coilvoltage	exp1D (7.9.8.1.225)	Voltage on the full coil [V]; Time-dependent; Vector (ncoils)
p_cryo	float (7.9.8.1.2)	Total electric power consumed by the cryoplant system [W]; Time-dependent. Scalar.
p_nh	vecflt_type (7.9.8.1.18)	Nuclear heating on the poloidal field coils [W]; Time-dependent. Vector(ncoils)

Type of: pfsystems:pfcoils (4163)

7.9.8.1.351 pfelement

Axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
id	vecstring_type (7.9.8.1.20)	ID of this element. Should be a matrix of strings (ncoils,max_nelements), but not supported by the UAL yet.
turnsign	matflt_type (7.9.8.1.15)	Sign of turn and fraction of a turn for calculating magnetic field of the Element; Matrix (ncoils,max_nelements)
area	matflt_type (7.9.8.1.15)	Surface area of this element [m^2]; Matrix (ncoils,max_nelements)
pfgeometry	pfgeometry (7.9.8.1.352)	Shape of a PF Coil Element

Type of: desc_pfcoils:pfelement (4269)

7.9.8.1.352 pfgeometry

Shape of a PF Coil Element

member	type	description
type	matint_type (7.9.8.1.16)	Type used to describe a coil shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Matrix of integers (ncoils,max_nelements)
npoints	matint_type (7.9.8.1.16)	Number of points describing an element (irregular outline rzcoordinates); Matrix (ncoils,max_nelements)
rzcoordinate	rz3D (7.9.8.1.391)	Irregular outline [m]; 3D arrays (ncoils,max_nelements,max_npoints)
rzdrdz	array3dflt_type (7.9.8.1.7)	4-vector defining Centre R,Z and full extents dR, dZ [m]; 3D Array (ncoils,max_nelements,4)

Type of: pfelement:pfgeometry (4454)

7.9.8.1.353 pfpageometry

Geometry of the passive elements

member	type	description
type	vecint_type (7.9.8.1.19)	Type used to describe the shape (0 for 'rzcoordinates' or 1 for 'rzdrdz'); Vector of integers (nelements)
npoints	vecint_type (7.9.8.1.19)	Number of points describing an element (irregular outline rzcoordinates); Vector of integers (nelements)
rzcoordinate	rz2D (7.9.8.1.390)	Irregular outline [m]; Matrix (nelements,max_npoints)
rzdrdz	matflt_type (7.9.8.1.15)	4-vector defining Centre R,Z and full extents dR, dZ [m]; Matrix (nelements,4)

Type of: pfpassive:pfpageometry (4457)

7.9.8.1.354 pfpassive

Passive axisymmetric conductor description

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of coil. Array of strings (nelements)
area	vecflt_type (7.9.8.1.18)	Surface area of this passive element [m^2]; Vector (nelements)
res	vecflt_type (7.9.8.1.18)	Passive element resistance [Ohm]; Vector (nelements)
eta	vecflt_type (7.9.8.1.18)	Passive element resistivity [Ohm.m]; Vector (nelements)
current	pfpassive_current (7.9.8.1.355)	Current induced in passive structures.
pfpageometry	pfpageometry (7.9.8.1.353)	Geometry of the passive elements

Type of: pfsystems:pfpassive (4163)

7.9.8.1.355 pfpassive_current

Current induced in passive structures.

member	type	description
toroidal	exp1D (7.9.8.1.225)	Toroidal current induced in passive structures [A]. Vector (nelements); Time-dependent
poloidal	exp1D (7.9.8.1.225)	Poloidal current induced in passive structures [A]. Vector (nelements); Time-dependent

Type of: pfpassive:current (4457)

7.9.8.1.356 pfsupplies

PF power supplies

member	type	description
desc_supply	desc_supply (7.9.8.1.167)	Description of the power supplies
voltage	exp1D (7.9.8.1.225)	Voltage at the supply output [V]; Time-dependent; Vector (nsupplies)
current	exp1D (7.9.8.1.225)	Current at the supply output, defined positive if it flows from point 1 to point 2 of the component in the pfcircuit description [A]; Time-dependent; Vector (nsupplies)

Type of: pfsystems:pfsupplies (4163)

7.9.8.1.357 phaseellipse

Phase ellipse characteristics

member	type	description
invcurvrad	vecflt_type (7.9.8.1.18)	Inverse curvature radii for the phase ellipse [m-1], positive/negative for divergent/convergent beams, Vector (2). Time-dependent
angle	float (7.9.8.1.2)	Rotation angle for the phase ellipse [rd], Float. Time-dependent

Type of: rfbeam:phaseellipse (4488)

7.9.8.1.358 planecoil

Plane coil description

member	type	description
coordinates	rz1D (7.9.8.1.387)	Coordinate points of centre of conductor; vectors(nelements)
hlength	vecflt_type (7.9.8.1.18)	Half length perpendicular to plane where coil is defined; vector(nelements) [m].
radialhwidth	vecflt_type (7.9.8.1.18)	Half width, (outer contour-inner contour)/2; vector(nelements) [m].

Type of: tf_desc_tfcoils:planecoil (4585)

7.9.8.1.359 plasmaComplexType

Description of incoming plasma

member	type	description
species	vecint_type (7.9.8.1.19)	Definition of plasma species. Index into wall/compositions/edgespecies. Integer vector (number of plasma species).
flux	matflt_type (7.9.8.1.15)	Plasma particle flux density from/to plasma facing wall surfaces [1/(m^2 s)]. Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)
b	matflt_type (7.9.8.1.15)	Magnetic field vector at the surface [T]; Time-dependent; Float matrix (number of space dimensions, number of discretization elements in the subgrid). If two-dimensional: unit vectors with first coordinate perpendicular to the wall facing towards the plasma, second coordinate parallel to the surface (in the direction of the surface discretization), third dimension is zero. If three-dimensional: vector is relative to basis vectors stored in wall/wall3d/grid/basis with basis index as given in wall/wall3d/basis_index.
energy	matflt_type (7.9.8.1.15)	Total energy flux density of incoming particles of given species [W/m^2]; Positive means incoming onto the wall, negative means sent back into the plasma. Time-dependent; Float matrix (number of plasma species, number of discretization elements in the subgrid)

Type of: wall2d:plasma (4612) I wall3d:plasma (4614)

7.9.8.1.360 plasmaedge

Plasma edge characteristics in front of the antenna.

member	type	description
npoints	integer (7.9.8.1.3)	Number of points in the distance grid. Integer
distance	vecflt_type (7.9.8.1.18)	Grid for electron density, defined as the perpendicular distance to the antenna waveguide plane (the origin being described in the position sub-structure) [m]. Vector (npoints). Time-dependent.
density	vecflt_type (7.9.8.1.18)	Electron density in front of the antenna [m^-3]. Vector (npoints). Time-dependent.

Type of: antenna_lh:plasmaedge (4182)

7.9.8.1.361 pol_decomp

TO BE REMOVED, being replaced by e_components and grid. Kept only to make smooth transition between data-type versions. [Poloidal decomposition of the wave fields. Uses the flux surface grid in grid_1d.]

member	type	description
mpol	vecint_type (7.9.8.1.19)	Poloidal mode numbers; Vector (nmpol)
e_plus	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of left hand polarised component of the wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)

member	type	description
e_plus_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of left hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_minus	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of right hand polarised component of the wave electric field; Time-dependent (V/m); Array 3D (ntor, npsi, nmpol)
e_minus_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of right hand polarised component of the wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field normal to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_norm_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of wave electric field normal to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of wave electric field tangent to a flux surface [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_binorm_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of wave electric field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of parallel wave electric field [V/m]; Time-dependent; Array 3D (ntor, npsi, nmpol)
e_para_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of parallel wave electric field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field normal to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_norm_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of normal wave magnetic field [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm	array3dflt_type (7.9.8.1.7)	Magnitude of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_binorm_ph	array3dflt_type (7.9.8.1.7)	Phase of poloidal Fourier decomposition of wave magnetic field tangent to a flux surface [rad]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para	array3dflt_type (7.9.8.1.7)	Magnitude of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
b_para_ph	array3dflt_type (7.9.8.1.7)	Phase of Fourier decomposition of wave magnetic field parallel to the equilibrium magnetic field [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)
k_perp	array3dflt_type (7.9.8.1.7)	Perpendicular wave number [T]; Time-dependent; Array 3D (ntor, npsi, nmpol)

Type of: fullwave:pol_decomp (4340)

7.9.8.1.362 polarimetry

This structure accomodates the polarimetry setup and measurements of a mse diagnostic, as widely used in fusion devices. The final measurement is the tan(gamma) where gamma is the polarization angle of a particular spectral mse component.

member	type	description
setup	msediag_setup_polarimetry (7.9.8.1.310)	diagnostic setup information
measure	exp1D (7.9.8.1.225)	Measured value (MSE angle gamma [rad]). Time-dependent; Vector (nchords)

Type of: msediag:polarimetry (4157)

7.9.8.1.363 polarization

Wave field polarization along the ray/beam.

member	type	description
epol_p_re	vecflt_type (7.9.8.1.18)	Real part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_p_im	vecflt_type (7.9.8.1.18)	Imaginary part of the left hand polarized electric field (rotating with the ions), Vector (npoints). Time-dependent
epol_m_re	vecflt_type (7.9.8.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_m_im	vecflt_type (7.9.8.1.18)	Real part of the right hand polarized electric field (rotating with the electrons), Vector (npoints). Time-dependent
epol_par_re	vecflt_type (7.9.8.1.18)	Real part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent
epol_par_im	vecflt_type (7.9.8.1.18)	Imaginary part of the electric field polarization vector in the magnetic field direction, Vector (npoints). Time-dependent

Type of: beamtracing:polarization (4192)

7.9.8.1.364 power_conv_component

Description of the components of the power conversion system. Array of structure (ncomp).

member	type	description
name	string (7.9.8.1.4)	name of the component
temp_in	float (7.9.8.1.2)	temperature of the input [K];Scalar
temp_out	float (7.9.8.1.2)	temperature of the output [K];Scalar
press_in	float (7.9.8.1.2)	Pressure of the input[Pa];Scalar
press_out	float (7.9.8.1.2)	Pressure of the output [Pa];Scalar
power	float (7.9.8.1.2)	electric consumption by the component; (consumption power)[W];Scalar
flow	float (7.9.8.1.2)	Flow through the component [kg/s]; Scalar

Type of: circuits:component (4205)

7.9.8.1.365 power_exchange

member	type	description
dep_pow	vecflt_type (7.9.8.1.18)	Power deposited in each bb module (the reference outboard module if only value is given) [W]; Vector(nmodules)
dep_fw	float (7.9.8.1.2)	Power deposited in the first wall (heat flux + neutrons) [W]; Scalar
dep_sg	float (7.9.8.1.2)	Power deposited in the stiffening grid (neutrons) [W]; Scalar
dep_cp	float (7.9.8.1.2)	Power deposited in the cooling plates (neutrons) [W]; Scalar
dep_lp	float (7.9.8.1.2)	Power deposited in the Pb-15.7Li (neutrons) [W]; Scalar
dep_man	float (7.9.8.1.2)	Power deposited in the manifolds (neutrons) [W]; Scalar
dep_pl	float (7.9.8.1.2)	Power deposited in the protect layer (made of tungsten) (neutrons) [W]; Scalar
rec_fw	float (7.9.8.1.2)	Power recovered from He in first wall channels [W]; Scalar
rec_sg	float (7.9.8.1.2)	Power recovered from He in stiffening grid channels [W]; Scalar
rec_cp	float (7.9.8.1.2)	Power recovered from He in cooling plates channels [W]; Scalar
pow_dens_fw	float (7.9.8.1.2)	Peak energy depostion in first wall [W.m^-3]; Scalar
pow_dens_bz	float (7.9.8.1.2)	Peak energy depostion in breeding zone [W.m^-3]; Scalar
pow_dens_bz10	float (7.9.8.1.2)	Peak energy depostion in breeding zone (first ten centimers) [W.m^-3]; Scalar
pow_dens_bp	float (7.9.8.1.2)	Peak energy depostion in back plate [W.m^-3]; Scalar
pow_dens_man	float (7.9.8.1.2)	Peak energy depostion in manifold [W.m^-3]; Scalar
pow_dens_sh	float (7.9.8.1.2)	Peak energy depostion in shield [W.m^-3]; Scalar

Type of: mode_neutr:pow_exchange (4402)

7.9.8.1.366 powerflow

Power flow along the ray/beam.

member	type	description
phi_perp	vecflt_type (7.9.8.1.18)	Normalized power flow in the direction perpendicular to the magnetic field; Vector (npoints). Time-dependent
phi_par	vecflt_type (7.9.8.1.18)	Normalized power flow in the direction parallel to the magnetic field; Vector (npoints). Time-dependent
power_e	vecflt_type (7.9.8.1.18)	Power absorbed along the beam by electrons [W]; Vector (npoints). Time-dependent
power_i	matflt_type (7.9.8.1.15)	Power absorbed along the beam by an ion species [W]; Matrix (npoints, nion). Time-dependent

Type of: beamtracing:powerflow (4192)

7.9.8.1.367 profiles1d

Profiles derived from the fields solved in the transport equations, or from experiment.

member	type	description
pe	coreprofile (7.9.8.1.151)	Electron pressure [Pa]; Time-dependent;
dpedt	coreprofile (7.9.8.1.151)	Time derivative of the electron pressure [Pa/s]; Time-dependent;
pi	coreprofion (7.9.8.1.152)	Ion pressure [Pa]; Time-dependent;

member	type	description
pi_tot	coreprofile (7.9.8.1.151)	Total ion pressure (sum of the species) [Pa]; Time-dependent;
dpi_totdt	coreprofile (7.9.8.1.151)	Time derivative of the total ion pressure [Pa/s]; Time-dependent;
pr_th	coreprofile (7.9.8.1.151)	Thermal pressure (electrons+ions) [Pa]; Time-dependent;
pr_perp	coreprofile (7.9.8.1.151)	Total perpendicular pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
pr_parallel	coreprofile (7.9.8.1.151)	Total parallel pressure (electrons+ions, thermal+non-thermal) [Pa]; Time-dependent;
jtot	coreprofile (7.9.8.1.151)	total parallel current density = average(jtot.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jni	coreprofile (7.9.8.1.151)	non-inductive parallel current density = average(jni.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
jphi	coreprofile (7.9.8.1.151)	total toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent;
joh	coreprofile (7.9.8.1.151)	ohmic parallel current density = average(joh.B) / B0, where B0 = coreprof/toroid_field/b0 [A/m^2]; Time-dependent;
vloop	coreprofile (7.9.8.1.151)	Toroidal loop voltage [V]. Time-dependent.
sigmapar	coreprofile (7.9.8.1.151)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent.
qoh	sourceel (7.9.8.1.435)	ohmic heating [W/m^3]; Time-dependent;
qei	coreprofile (7.9.8.1.151)	Collisional heat transfer from electrons to ions (equipartition term) [W/m^3]; Time-dependent;
eparallel	coreprofile (7.9.8.1.151)	Parallel electric field = average(E.B) / B0, where B0 = coreprof/toroid_field/b0 [V.m^-1]. Time-dependent.
e_b	coreprofile (7.9.8.1.151)	Average(E.B) [V.T.m^-1]. Time-dependent.
q	coreprofile (7.9.8.1.151)	Safety factor profile; Time-dependent;
shear	coreprofile (7.9.8.1.151)	Magnetic shear profile; Time-dependent;
ns	coreprofion (7.9.8.1.152)	Density of fast ions, for the various ion species [m^-3]; Time-dependent;
mtor	coreprofion (7.9.8.1.152)	Toroidal momentum of the various ion species [UNITS?]; Time-dependent;
wtor	coreprofion (7.9.8.1.152)	Angular toroidal rotation frequency of the various ion species [s^-1]; Time-dependent;
vpol	coreprofion (7.9.8.1.152)	Neoclassical poloidal rotation of each ion species [m/s]. Time-dependent.
zeff	coreprofile (7.9.8.1.151)	Effective charge profile; Time-dependent;
bpol	coreprofile (7.9.8.1.151)	Average poloidal magnetic field, defined as sqrt(ave(grad rho^2/R^2)).dpsi/drho [T]. Time-dependent.
dvprimedt	coreprofile (7.9.8.1.151)	Time derivative of the radial derivative of the volume enclosed in the flux surface, i.e. d/dt(dV/drho_tor) [m^2.s^-1]; Time-dependent.

Type of: coreprof:profiles1d (4137)

7.9.8.1.368 profiles_1d

output profiles as a function of the poloidal flux

member	type	description
psi	vecflt_type (7.9.8.1.18)	Poloidal flux [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
phi	vecflt_type (7.9.8.1.18)	toroidal flux [Wb]; Time-dependent; Vector (npsi)
pressure	vecflt_type (7.9.8.1.18)	pressure profile as a function of the poloidal flux [Pa]; Time-dependent; Vector (npsi)
F_dia	vecflt_type (7.9.8.1.18)	diamagnetic profile (R B_phi) [T m]; Time-dependent; Vector (npsi)
pprime	vecflt_type (7.9.8.1.18)	psi derivative of the pressure profile [Pa/Wb]; Time-dependent; Vector (npsi)
ffprime	vecflt_type (7.9.8.1.18)	psi derivative of F_dia multiplied with F_dia [T^2 m^2/Wb]; Time-dependent; Vector (npsi)
jphi	vecflt_type (7.9.8.1.18)	flux surface averaged toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
jparallel	vecflt_type (7.9.8.1.18)	flux surface averaged parallel current density = average(j.B) / B0, where B0 = equilibrium/global_param/toroid_field/b0 ; [A/m^2]; Time-dependent; Vector (npsi)
q	vecflt_type (7.9.8.1.18)	Safety factor = dphi/dpsi [-]; Time-dependent; Vector (npsi)
shear	vecflt_type (7.9.8.1.18)	Magnetic shear, defined as rho_tor/q*dq/drho_tor [-]; Time-dependent; Vector (npsi)
r_inboard	vecflt_type (7.9.8.1.18)	radial coordinate (major radius) at the height and on the left of the magnetic axis [m]; Time-dependent; Vector (npsi)
r_outboard	vecflt_type (7.9.8.1.18)	radial coordinate (major radius) at the height and on the right of the magnetic axis [m]; Time-dependent; Vector (npsi)
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m], to be used by the ETS and in many CPOs (coreprof, ...). Defined as sqrt(phi/pi/B0), where B0 = equilibrium/global_param/toroid_field/b0. Time-dependent; Vector (npsi)
dpsidrho_tor	vecflt_type (7.9.8.1.18)	dpsi/drho_tor [Wb/m]; Time-dependent; Vector (npsi)
rho_vol	vecflt_type (7.9.8.1.18)	Normalised radial coordinate related to the plasma volume. Defined as sqrt(volume / volume[LCFS]). Time-dependent; Vector (npsi)
beta_pol	vecflt_type (7.9.8.1.18)	poloidal beta (inside the magnetic surface); Time-dependent; Vector (npsi)
li	vecflt_type (7.9.8.1.18)	internal inductance (inside the magnetic surface); Time-dependent; Vector (npsi)
elongation	vecflt_type (7.9.8.1.18)	Elongation; Time-dependent; Vector (npsi)
tria_upper	vecflt_type (7.9.8.1.18)	Upper triangularity profile; Time-dependent; Vector (npsi)

member	type	description
tria_lower	vecflt_type (7.9.8.1.18)	Lower triangularity profile; Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed in the flux surface [m^3]; Time-dependent; Vector (npsi)
vprime	vecflt_type (7.9.8.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to psi, i.e. dV/dpsi [m^3/Wb]; Time-dependent; Vector (npsi)
dvdrho	vecflt_type (7.9.8.1.18)	Radial derivative of the volume enclosed in the flux surface with respect to rho_tor, i.e. dV/drho_tor [m^2]; Time-dependent; Vector (npsi)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]; Time-dependent; Vector (npsi)
aprime	vecflt_type (7.9.8.1.18)	Radial derivative of the cross-sectional area of the flux surface with respect to psi, i.e. darea/dpsi [m^2/Wb]; Time-dependent; Vector (npsi)
surface	vecflt_type (7.9.8.1.18)	Surface area of the flux surface [m^2]; Time-dependent; Vector (npsi)
ftrap	vecflt_type (7.9.8.1.18)	Trapped particle fraction; Time-dependent; Vector (npsi)
gm1	vecflt_type (7.9.8.1.18)	average(1/R^2); Time-dependent; Vector (npsi)
gm2	vecflt_type (7.9.8.1.18)	average(grad_rho^2/R^2); Time-dependent; Vector (npsi)
gm3	vecflt_type (7.9.8.1.18)	average(grad_rho^2); Time-dependent; Vector (npsi)
gm4	vecflt_type (7.9.8.1.18)	average(1/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm5	vecflt_type (7.9.8.1.18)	average(B^2) [T^2]; Time-dependent; Vector (npsi)
gm6	vecflt_type (7.9.8.1.18)	average(grad_rho^2/B^2) [T^-2]; Time-dependent; Vector (npsi)
gm7	vecflt_type (7.9.8.1.18)	average(grad_rho); Time-dependent; Vector (npsi)
gm8	vecflt_type (7.9.8.1.18)	average(R); Time-dependent; Vector (npsi)
gm9	vecflt_type (7.9.8.1.18)	average(1/R); Time-dependent; Vector (npsi)
b_av	vecflt_type (7.9.8.1.18)	average(B); Time-dependent; Vector (npsi)
b_min	vecflt_type (7.9.8.1.18)	minimum(B) on the flux surface; Time-dependent; Vector (npsi)
b_max	vecflt_type (7.9.8.1.18)	maximum(B) on the flux surface; Time-dependent; Vector (npsi)
omega	vecflt_type (7.9.8.1.18)	Toroidal rotation angular frequency (assumed constant on the flux surface) [rad/s]; Time-dependent; Vector (npsi)
omegaprime	vecflt_type (7.9.8.1.18)	Psi derivative of the toroidal rotation angular frequency (assumed constant on the flux surface) [rad/(s.Wb)]; Time-dependent; Vector (npsi)
mach_a	vecflt_type (7.9.8.1.18)	Alfvenic Mach number; Time-dependent; Vector (npsi)
phi_flow	vecflt_type (7.9.8.1.18)	Poloidal flow function phi_flow = rho*v_pol/B_pol[kg/(V.s^2)] where rho is mass density; Time-dependent; Vector (npsi)
s_flow	vecflt_type (7.9.8.1.18)	Flux function in the closure equation p=S(psi).rho^(gamma); Entropy (gamma=5/3) or Temperature (gamma=1); Time-dependent; Vector (npsi)
h_flow	vecflt_type (7.9.8.1.18)	flow function h_flow = gamma/(gamma-1)*s_flow*rho^(gamma-1) + 0.5*(phi_flow*B/rho)^2 - 0.5*(R*omega)^2 [m^2/s^2]; Time-dependent; Vector (npsi)
rho_mass	vecflt_type (7.9.8.1.18)	Mass density [kg/m^3]; Time-dependent; Vector (npsi)

Type of: equilibrium:profiles_1d (4146)

7.9.8.1.369 psi

Poloidal magnetic flux [Wb]; Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Signal value [Wb]; Time-dependent; Vector (nrho)
ddrho	vecflt_type (7.9.8.1.18)	Radial derivative (dvalue/drho_tor) [Wb.m^-1]; Time-dependent; Vector (nrho)
d2drho2	vecflt_type (7.9.8.1.18)	Second order radial derivative (d2value/drho_tor2) [Wb.m^-2]; Time-dependent; Vector (nrho)
ddt_rhotorn	vecflt_type (7.9.8.1.18)	Time derivative of the poloidal flux at constant rho_tor_norm [V]. Time-dependent.
ddt_phi	vecflt_type (7.9.8.1.18)	Time derivative of the poloidal flux at constant toroidal flux [V]. Time-dependent.
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String
flag	integer (7.9.8.1.3)	Flag describing how the profile has been processed : 0-not calculated; 1-interpretative; 2-calculated by the transport solver; 3-calculated by a separate code : in that case only, description of the code provided in codeparam at the same level; 4-used value from the previous time step; Time-dependent; Scalar
boundary	boundary (7.9.8.1.93)	Boundary condition for the transport equation. Time-dependent.
jni	jni (7.9.8.1.270)	Non-inductive parallel current density [A/m^2]; Time-dependent;
sigma_par	coreprofile (7.9.8.1.151)	Parallel conductivity [ohm^-1.m^-1]. Time-dependent
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: coreprof:psi (4137)

7.9.8.1.370 putinfo

Structure which is type independent, describing the data item

member	type	description
putmethod	string (7.9.8.1.4)	Storage method for this data
putaccess	string (7.9.8.1.4)	Instructions to access the data using this method
putlocation	string (7.9.8.1.4)	Name of this data under this method
rights	string (7.9.8.1.4)	Access rights to this data

Type of: datainfo:putinfo (4265)

7.9.8.1.371 q

Safety factor

member	type	description
qvalue	vecflt_type (7.9.8.1.18)	Safety factor values; Time-dependent; Vector (nmeas)
position	rz1D (7.9.8.1.387)	Major radius of the given safety factor values [m]; Time-dependent; Vector (nmeas)
source	string (7.9.8.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
exact	integer (7.9.8.1.3)	1 means exact data, is not fitted; 0 means the equilibrium code does a least square fit; scalar integer
weight	vecflt_type (7.9.8.1.18)	weight given to the measurement (¿= 0); Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.8.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.8.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.8.1.18)	chiˆ2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:q (4320)

7.9.8.1.372 reacprodType

Characterizes a reactant or product in an AMNS reaction.

member	type	description
label	string (7.9.8.1.4)	String identifier for reaction participant (e.g. "D", "e", "W", "CD4", "photon", "n").
constituents(:)	amns_constituentType (7.9.8.1.75)	Array specifying the constituents of this reactant/product; For an atom or ion the array will be of length 1, for a molecule there will be more than one element in the array; Vector (nconst)
role	identifier (7.9.8.1.263)	Identifier for the role of this paricipant in the reaction. For surface reactions distinguish between projectile and wall.
amn	float (7.9.8.1.2)	Mass of the participant (amu).
relative	integer (7.9.8.1.3)	This is a flag indicating that charges are absolute (if set to 0), relative (if 1) or irrelevant (-1); relative would be used to categorize the ionization reactions from i to i+1 for all charge states; in the case of bundles, the +1 relative indicates the next bundle.
za	float (7.9.8.1.2)	Charge of the participant. Not set if not important (e.g. for a nuclear reaction). For the case where we are describing a set of reactions for different charge states, then this is the relative charge.
multiplicity	float (7.9.8.1.2)	Multiplicity in the reaction
metastable	vecint_type (7.9.8.1.19)	An array identifying the metastable; if zero-length, then not a metastable; if of length 1, then the value indicates the electronic level for the metastable (mostly used for atoms/ions); if of length 2, then the 1st would indicate the electronic level and the second the vibrational level for the metastable (mostly used for molecules and molecular ions); if of length 3, then the 1st would indicate the electronic level, the second the vibrational level and the third the rotational level for the metastable (mostly used for molecules and molecular ions)
metastable_label	string (7.9.8.1.4)	Label identifying in text form the metastable

Type of: amns_processType:product (4179) I amns_processType:reactant (4179)

7.9.8.1.373 react

In the reactor region

member	type	description
he_fr	float (7.9.8.1.2)	Coolant mass flow rate in the whole reactor [Kg/s]; Scalar
lp_fr	float (7.9.8.1.2)	Pb-15.7Li mass flow rate in the whole reactor [Kg/s]; Scalar
he_dp	float (7.9.8.1.2)	Coolant pressure drops in the reactor (compressing pipelines) [Pa]; Scalar

member	type	description
lipb_dp	float (7.9.8.1.2)	Pb-15.7Li pressure drops in the reactor [Pa]; Scalar

Type of: hcll_bb:react (4363)

7.9.8.1.374 rectanglexyz

Rectangle defined by its four corners. These form an ordered sequence: point00, point01, point11, point10. Here the first point can be calculated from the other three as point00=point01+poin10-point11, thus the rectangle is defined by the triplet (point01, point11, point10). The normal vector of this rectangle is defined to be in the direction (point01-point11)x(point10-point11).

member	type	description
point01	xyz0D (7.9.8.1.537)	Point 01 on the rectangle
point11	xyz0D (7.9.8.1.537)	Point 11 on the rectangle
point10	xyz0D (7.9.8.1.537)	Point 10 on the rectangle

Type of: nbi_nbi_unit_wall_surface:rectangle (4416)

7.9.8.1.375 recycling_neutrals

Recycling coefficients

member	type	description
particles	vecflt_type (7.9.8.1.18)	Particle recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut,). Time-dependent.
energy	vecflt_type (7.9.8.1.18)	Energy recycling coefficient corresponding to the conversion to the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:recycling (4209)

7.9.8.1.376 reduced

Structure for a reduced data signal (0D data)

member	type	description
value	float (7.9.8.1.2)	Data value; Real
source	string (7.9.8.1.4)	Path to the source signal (diagnostic or genprof, from which to read all info on the signal); String
time	float (7.9.8.1.2)	Time (exact time slice used from the time array of the source signal); Real

7.9.8.1.377 refl_receive

Reflectometry signal; experimental or code output. Time-dependent. Vector(nreceivers); If output from ERC3D, contains short, high-resolution (ps) time series anchored to the time of the CPO or, for a combination of runs, longer, coarse time signals. For experimental signals, time series may span much longer durations. For slowly varying signals, may contain only one point and have a seperate CPO instance with different time field for every point. For code output, the signals are usually normalised to unity power.

member	type	description
name	string (7.9.8.1.4)	Signal name
raw_signal	t_series_real (7.9.8.1.447)	Raw antenna signal, possibly code dependent, may not always be available; usually without mixing of local oscillator; Time series; Vector (ntime_raw); Time-dependent
io_signal	t_series_real (7.9.8.1.447)	Local oscillator signal, for mixing with raw signal; Time series; Vector (ntime_raw); Time-dependent
iq_receiver	t_series_cplx (7.9.8.1.446)	I and Q signals from the receiver; already processed by code (or hardware); Time series; Vector (ntime_receiver); Time-dependent
antenna_ind	integer (7.9.8.1.3)	Index of the receiving antenna in the antennas vector, starting at 0

Type of: reflectomet:refl_receive (4166)

7.9.8.1.378 reflectometry_antennas

Vector of reflectometry antenna descriptions. These include radiation fields as well as material antenna structures (feeds, horns, later mirrors); Vector(nantennas); refl_received entries refer to their antenna by index in this array.

member	type	description
name	string (7.9.8.1.4)	Antenna name
type	identifier (7.9.8.1.263)	Antenna type: 1: sending, 2: receiving, 3: both
origin	origin (7.9.8.1.337)	NO DOCS
radfield	reflectometry_radfield (7.9.8.1.379)	Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent; Time-dependent
geometry	float (7.9.8.1.2)	To be defined: annotation and type
launchsignal	launchsignal (7.9.8.1.279)	NO DOCS

Type of: reflectomet:antennas (4166)

7.9.8.1.379 reflectometry_radfield

Complex valued radiation field for injection into grid; Can be a Gaussian, or a waveguide mode, or an arbitrary E field. The latter method can be used with measured radiation patterns of actual antennas. Needs to be matched with any material structures in the geometry section of this CPO. Frequency dependence: in the launchsignal part, the lauch frequency can be varied arbitrarily, which changes the radiation field (or Gaussian waist sizes) when radiated from a fixed size antenna; therefor, all entries here can be specified frequency-dependent

member	type	description
type	identifier (7.9.8.1.263)	Identify type of source: 0: Gaussian, 1: waveguide mode, 2: arbitrary E field; corresponding substructure must be filled to provide the information.
position	vecflt_type (7.9.8.1.18)	Center position in local x-y-z coordinate system [m]; Vector(3)
gaussian(:)	reflectometry_radfield_gaussian (7.9.8.1.380)	Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only. Time-dependent
efield(:)	reflectometry_radifield_efield (7.9.8.1.381)	complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

Type of: reflectometry_antennas:radfield (4481)

7.9.8.1.380 reflectometry_radfield_gaussian

Parameters if radiation field is a pure Gaussian; major axes of the Gaussian are aligned with the x and y axis of the local coordinate system given in origin; linear polarisation only; Time-dependent

member	type	description
aperture	simp_apert (7.9.8.1.428)	Physical limits of the Gaussian wave field; any rotation here is at odds with the Gaussian geometry
waistsize	vecflt_type (7.9.8.1.18)	Beam waist size [m]; Vector(2)
waistzpos	vecflt_type (7.9.8.1.18)	Beam waist position along local z axis [m]; Vector(2)
tiltangle	vecflt_type (7.9.8.1.18)	tilt angle relative to local z axis [rad]; Vector(2)
polar_angle	vecflt_type (7.9.8.1.18)	Polarisation angle around local z [rad]; 0 means along the local x axis, i.e. vertical if all angles in the origin field are 0; Scalar
frequency	float (7.9.8.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:gaussian (4482)

7.9.8.1.381 reflectometry_radifield_efield

complex electric field at the aperture, given as a 2d grid in the local x and y directions (corresponding to dim1 and dim2); Time-dependent

member	type	description
grid2d	reggrid (7.9.8.1.382)	Coordinate values for the grid for the electric field arrays. Vector(ndim1) and Vector(ndim2); Time-dependent
e1	matcplx_type (7.9.8.1.14)	Electric field component along local x direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
e2	matcplx_type (7.9.8.1.14)	Electric field component along local y direction [V/m]. Matrix(ndim1,ndim2); Time-dependent
frequency	float (7.9.8.1.2)	Frequency for this occurrence of the gaussian/efield/wgmode CPO [Hz]; Scalar; can be zero of no frequency dependence is desired and only one CPO is given; Time-dependent

Type of: reflectometry_radfield:efield (4482)

7.9.8.1.382 reggrid

Generic structure for a regular grid

member	type	description
dim1	vecflt_type (7.9.8.1.18)	First dimension values; Vector (ndim1)
dim2	vecflt_type (7.9.8.1.18)	Second dimension values; Vector (ndim2)

Type of: coord_sys:grid (4232) I reflectometry_radifield_efield:grid2d (4484)

7.9.8.1.383 rfameasure

Measured values

member	type	description
ti	exp1D (7.9.8.1.225)	Ion temperature [eV]. Vector (nchannels)

Type of: rfadiag:measure (4167)

7.9.8.1.384 rfasetup

diagnostic setup information

member	type	description
position	rzphi1Dexp (7.9.8.1.394)	Position of the measurement. Time-dependent. Vector (nchannels)

Type of: rfadiag:setup (4167)

7.9.8.1.385 rfbeam

Beam characteristics

member	type	description
spot	spot (7.9.8.1.442)	Spot characteristics
phaseellipse	phaseellipse (7.9.8.1.357)	Phase ellipse characteristics

Type of: antenna_ec:beam (4180) I antenna_lh:beam (4182)

7.9.8.1.386 rz0D

Structure for one (R,Z) position (0D)

member	type	description
r	float (7.9.8.1.2)	Major radius [m]
z	float (7.9.8.1.2)	Altitude [m]

Type of: circularcoil:centre (4206) I current:rz_reference (4261) I dist_geometry_0d:mag_axis (4278) I distsource_global_param: (4298) I eqgeometry:active_limit (4321) I eqgeometry:geom_axis (4321) I eqgeometry:left_low_st (4321) I eqgeometry:left_up_st (4321) I eqgeometry:right_low_st (4321) I eqgeometry:right_up_st (4321) I globalparam:geom_axis (4360) I mag_axis:position (4389) I waves_global_param:mag_axis (4629)

7.9.8.1.387 rz1D

Structure for list of R,Z positions (1D)

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]
z	vecflt_type (7.9.8.1.18)	Altitude [m]

Type of: flush:position (4334) I isoflux:position (4372) I limiter_unit:position (4383) I mhd_ideal_wall2d:position (4394) I mhd_res_wall2d:position (4397) I omnigen_surf:rz (4434) I planecoil:coordinates (4461) I q:position (4474) I setup_bprobe:position (4525) I solcurdiag_sol_current_setup:position (4533) I straps:coord_strap (4547) I wall_blocks_unit:position (4616) I wall_vessel_annular:inside (4623) I wall_vessel_annular:outside (4623) I xpts:position (4639)

7.9.8.1.388 rz1D_npoints

Structure for list of R,Z positions (1D), with mention of the number of points relevant for a given time slice

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]. Vector(max_npoints). Time-dependent
z	vecflt_type (7.9.8.1.18)	Altitude [m]. Vector(max_npoints). Time-dependent
npoints	integer (7.9.8.1.3)	Number of meaningful points in the above vectors at a given time slice. Time-dependent

7.9.8.1.389 rz1Dexp

Structure for list of R,Z positions (1D), with R and Z time-depent and experimental.

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]. Vector(npoints). Time-dependent
z	vecflt_type (7.9.8.1.18)	Altitude [m]. Vector(npoints). Time-dependent

Type of: eqgeometry:boundary (4321) I eqgeometry:xpts (4321)

7.9.8.1.390 rz2D

Structure for list of R,Z positions (2D)

member	type	description
r	matflt_type (7.9.8.1.15)	Major radius [m]
z	matflt_type (7.9.8.1.15)	Altitude [m]

Type of: coord_sys:position (4232) I geom_iron:rzcoordinate (4358) I pfpageometry:rzcoordinate (4456)

7.9.8.1.391 rz3D

Structure for list of R,Z positions (3D)

member	type	description
r	array3dflt_type (7.9.8.1.7)	Major radius [m]
z	array3dflt_type (7.9.8.1.7)	Altitude [m]

Type of: pfgeometry:rzcoordinate (4455)

7.9.8.1.392 rzphi0D

Structure for a single R,Z,phi position (0D)

member	type	description
r	float (7.9.8.1.2)	Major radius [m]
z	float (7.9.8.1.2)	Altitude [m]
phi	float (7.9.8.1.2)	Toroidal angle [rad]

Type of: antenna_ec:position (4180) I antenna_lh:position (4182) I beamletgroup:position (4190) I fusiondiag_voxels:centre (4356) I fusiondiag_voxels:direction (4356) I msediag_setup:pivot_point (4412) I msediag_setup:second_point (4412) I origin:refpos (4440) I pellet_geometry:pivot_point (4447) I pellet_geometry:second_point (4447)

7.9.8.1.393 rzphi1D

Structure for list of R,Z,phi positions (1D)

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]
z	vecflt_type (7.9.8.1.18)	Altitude [m]
phi	vecflt_type (7.9.8.1.18)	Toroidal angle [rad]

Type of: beamlets:position (4191) I edges:edge_rzphi (4315) I fusiondiag_colliunit_circ:centre (4345) I halpha_setup:pivot_poir (4361) I halpha_setup:second_point (4361) I launchs:position (4153) I lithsetup:position (4387) I msediag_emiss_chord:setup (4407) I pellet_pathprofiles:position (4449) I setup_line:pivot_point (4527) I setup_line:second_point (4527) I setup_line:third_point (4527) I tssetup:position (4599)

7.9.8.1.394 rzphi1Dexp

Structure for list of R,Z,phi positions (1D) with experimental structure (value, abserror, relerror)

member	type	description
r	exp1D (7.9.8.1.225)	Major radius [m]
z	exp1D (7.9.8.1.225)	Altitude [m]
phi	exp1D (7.9.8.1.225)	Toroidal angle [rad]

Type of: cxsetup:position (4263) I ecemeasure:position (4305) I lang_derived:position (4374) I lang_measure:position (4375) I rfasetup:position (4487)

7.9.8.1.395 rzphi1Dexperimental

Structure for list of R,Z,phi positions (1D) with additional appinfo tags to have some nodes both in MD and DM

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius [m]
z	vecflt_type (7.9.8.1.18)	Altitude [m]
phi	vecflt_type (7.9.8.1.18)	Toroidal angle [rad]

Type of: setup_line_exp:pivot_point (4528) I setup_line_exp:second_point (4528) I setup_line_exp:third_point (4528)

7.9.8.1.396 rzphi2D

Structure for list of R,Z,phi positions (2D)

member	type	description
r	matflt_type (7.9.8.1.15)	Major radius [m]
z	matflt_type (7.9.8.1.15)	Altitude [m]
phi	matflt_type (7.9.8.1.15)	Toroidal angle [rad]

Type of: fusiondiag_colliunit_poly:nodes (4346) I setup_floops:position (4526)

7.9.8.1.397 rzphi3D

Structure for list of R,Z,phi positions (3D)

member	type	description
r	array3dflt_type (7.9.8.1.7)	Major radius [m]

member	type	description
z	array3dflt_type (7.9.8.1.7)	Altitude [m]
phi	array3dflt_type (7.9.8.1.7)	Toroidal angle [rad]

Type of: turbcoordsys:position (4601)

7.9.8.1.398 rzphidrdzdphi1D

Structure for list of R,Z,phi positions and width dR dZ dphi (1D)

member	type	description
r	vecflt_type (7.9.8.1.18)	Position : major radius [m]
z	vecflt_type (7.9.8.1.18)	Position : altitude [m]
phi	vecflt_type (7.9.8.1.18)	Position : toroidal angle [rad]
dr	vecflt_type (7.9.8.1.18)	Width : major radius [m]
dz	vecflt_type (7.9.8.1.18)	Width : altitude [m]
dphi	vecflt_type (7.9.8.1.18)	Width : toroidal angle [rad]

Type of: msediag_setup_polarimetry:rzgamma (4413)

7.9.8.1.399 sawteeth_diags

Inversion and mixing radii

member	type	description
shear1	float (7.9.8.1.2)	Magnetic shear at q = 1 [-]. Time-dependent. Real scalar.
rhotorn_q1	float (7.9.8.1.2)	Rho_tor_norm at q=1 radius [-]. Time-dependent. Real scalar.
rhotorn_inv	float (7.9.8.1.2)	Rho_tor_norm at inversion radius [-]. Time-dependent. Real scalar.
rhotorn_mix	float (7.9.8.1.2)	Rho_tor_norm at mixing radius [-]. Time-dependent. Real scalar.
pr_crash_trig	integer (7.9.8.1.3)	Previous crash trigger. Flag indicating whether a crash condition has been satisfied : 0 = no crash. N(¿0) = crash triggered due to condition ii=N. Integer. Time-dependent.
pr_crash_time	float (7.9.8.1.2)	Previous crash time [s]. Time-dependent. Real scalar.
pr_st_period	float (7.9.8.1.2)	Previous sawtooth period [s]. Time-dependent. Real scalar.

Type of: sawteeth:diags (4168)

7.9.8.1.400 sawteeth_profiles1d

Core profiles after sawtooth crash

member	type	description
psi	vecflt_type (7.9.8.1.18)	Poloidal magnetic flux [Wb]. Time-dependent. Vector (nrho).
psistar	vecflt_type (7.9.8.1.18)	Psi* = psi - phi [Wb]. Time-dependent. Vector (nrho).
q	vecflt_type (7.9.8.1.18)	Safety factor = dphi/dpsi [-]. Time-dependent. Vector (nrho).

Type of: sawteeth:profiles1d (4168)

7.9.8.1.401 scenario_centre

central values of the profiles (at magnetic axis)

member	type	description
te0	scenario_ref (7.9.8.1.418)	central electron temperature [eV]. Time-dependent.
ti0	scenario_ref (7.9.8.1.418)	central ion temperature [eV]. Time-dependent.
ne0	scenario_ref (7.9.8.1.418)	central electron density [m^-3]. Time-dependent.
ni0	scenario_ref (7.9.8.1.418)	central ion density [m^-3]. Time-dependent.
shift0	scenario_ref (7.9.8.1.418)	central value of Shafranov shift [m]. Time-dependent.
psi0	scenario_ref (7.9.8.1.418)	pedestal poloidal flux [Wb]. Time-dependent.
phi0	scenario_ref (7.9.8.1.418)	central toroidal flux [Wb]. Time-dependent.
q0	scenario_ref (7.9.8.1.418)	central safety factor value []. Time-dependent.

member	type	description
Rmag	scenario_ref (7.9.8.1.418)	radius of magnetic axis [R]. Time-dependent.
Zmag	scenario_ref (7.9.8.1.418)	Z coordinate of magnetic axis [R]. Time-dependent.
vtor_0	scenario_ref (7.9.8.1.418)	central rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:centre (4169)

7.9.8.1.402 scenario_composition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.8.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.8.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.8.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
imp_flag	vecint_type (7.9.8.1.19)	Multiple charge state calculation flag : 0-Only one charge state is considered; 1-Multiple charge state are considered and are described in impurity CPO; Vector (nion)
rot_imp_flag	vecint_type (7.9.8.1.19)	set to 1 for the impurity corresponding at the given toroidal rotation, otherwise = 0
pellet_amn	vecflt_type (7.9.8.1.18)	Atomic mass number (for pellet injector); Vector (nion)
pellet_zn	vecflt_type (7.9.8.1.18)	Nuclear charge (pellet injector); Vector (nion)
nbi_amn	vecflt_type (7.9.8.1.18)	Atomic mass number (for neutral beam injection); Vector (nion)
nbi_zn	vecflt_type (7.9.8.1.18)	Nuclear charge (for neutral beam injection); Vector (nion)

Type of: scenario:composition (4169)

7.9.8.1.403 scenario_configuration

Strings describing the tokamak configuration

member	type	description
config	scenario_int (7.9.8.1.410)	plasma configuration (limiter/divertor ...) []. Time-dependent. Possible values : 0 = undetermined; 1 = poloidal limiter (ring); 2 = poloidal limiter (LFS); 3 = poloidal limiter (HFS); 4 = toroidal limiter (ring); 5 = toroidal limiter (segment); 6 = poloidal divertor; 7 = toroidal divertor (single null, ion drift in direction of divertor); 8 = toroidal divertor (single null, ion drift in oposite direction of divertor); 9 = toroidal divertor (double null).
lmode_sc	string (7.9.8.1.4)	name of the L-mode scaling law. String.
hmode_sc	string (7.9.8.1.4)	name of the H-mode scaling law. String.
core_sc	string (7.9.8.1.4)	name of the core plasma energy scaling law. String.
pedestal_sc	string (7.9.8.1.4)	name of the pedestal energy scaling law. String.
helium_sc	string (7.9.8.1.4)	name of the helium confinement time scaling law. String.
impurity_sc	string (7.9.8.1.4)	name of the impurities confinement time scaling law
l2h_sc	string (7.9.8.1.4)	name of the L-mode to H-mode power threshold scaling law. String.
tor_rot_sc	string (7.9.8.1.4)	name of the toroidal spontaneous rotation scaling law. String.
wall_mat	string (7.9.8.1.4)	chemical compostion of the wall. String.
evap_mat	string (7.9.8.1.4)	chemical compostion evaporated wall conditioning material. String.
lim_mat	string (7.9.8.1.4)	chemical compostion of the limiter. String.
div_mat	string (7.9.8.1.4)	chemical compostion of the divertor
coordinate	string (7.9.8.1.4)	name/definition of the internal coordinate of the simulator that are given by the data named rho
ecrh_freq	scenario_ref (7.9.8.1.418)	ECRH frequency [Hz]. Time-dependent.
ecrh_loc	scenario_ref (7.9.8.1.418)	position of maximum ECRH deposition on scale of rho [rho]. Time-dependent.
ecrh_mode	scenario_int (7.9.8.1.410)	polarisation of ecrh wave (0 = O mode, 1 = X mode) []. Time-dependent.
ecrh_tor_ang	scenario_ref (7.9.8.1.418)	toroidal angle of ECRH at resonance [rad] Time-dependent.
ecrh_pol_ang	scenario_ref (7.9.8.1.418)	poloidal angle of ECRH resonance positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
ecrh_harm	scenario_int (7.9.8.1.410)	harmonic number of the apsorbed ecrh wave []. Time-dependent.
enbi	scenario_ref (7.9.8.1.418)	energy of the neutral beam [eV]. Time-dependent.
r_nbi	scenario_ref (7.9.8.1.418)	Major radius of tengance of NBI [m]. Time-dependent.
grad_b_drift	scenario_int (7.9.8.1.410)	direction of ion grad-B drift (1= to lower divertor, -1 = from lower divertor) []. Time-dependent.
icrh_freq	scenario_ref (7.9.8.1.418)	ICRH frequency [Hz]. Time-dependent.
icrh_scheme	string (7.9.8.1.4)	icrh scheme either : H_min_1; He3_min; T_harm_2; FW; FW_CD; FW_CCD
icrh_phase	scenario_ref (7.9.8.1.418)	ICRH antenna phasing [rad]. Time-dependent.
LH_freq	scenario_ref (7.9.8.1.418)	LHCD frequency [Hz]. Time-dependent.

member	type	description
LH_npar	scenario_ref (7.9.8.1.418)	LHCD parallel indice []. Time-dependent.
pellet_ang	scenario_ref (7.9.8.1.418)	pellet injection positon (0= LFS, pi/2 = top, -pi/2 = down, pi = HFS) [rad]. Time-dependent.
pellet_v	scenario_ref (7.9.8.1.418)	pellet injection velocity [m/s]. Time-dependent.
pellet_nba	scenario_ref (7.9.8.1.418)	initial number of atoms in pellet []. Time-dependent.

Type of: scenario:configs (4169)

7.9.8.1.404 scenario_confinement

characteristic confinement times

member	type	description
tau_e	scenario_ref (7.9.8.1.418)	thermal energy confinement time [s]. Time-dependent.
tau_l_sc	scenario_ref (7.9.8.1.418)	confinement time given by the selected L-mode scaling law [s]. Time-dependent.
tau_h_sc	scenario_ref (7.9.8.1.418)	confinement time given by the selected H-mode scaling law [s]. Time-dependent.
tau_he	scenario_ref (7.9.8.1.418)	Helium ashes confinement time [s]. Time-dependent.
tau_e_ee	scenario_ref (7.9.8.1.418)	electron energy confinement time [s]. Time-dependent.
tau_e_ii	scenario_ref (7.9.8.1.418)	ion energy confinement time [s]. Time-dependent.
tau_e_ei	scenario_ref (7.9.8.1.418)	energy equipartition characteristic time [s]. Time-dependent.
tau_cur_diff	scenario_ref (7.9.8.1.418)	characteristic time for current diffusion [s]. Time-dependent.
tau_i_rol	scenario_ref (7.9.8.1.418)	characteristic time for current decrease in tokamak equivalent R/L circuit [s]. Time-dependent.

Type of: scenario:confinement (4169)

7.9.8.1.405 scenario_currents

data related to current sources and current diffusion

member	type	description
RR	scenario_ref (7.9.8.1.418)	plasma resistivity [ohm]. Time-dependent.
i_align	scenario_ref (7.9.8.1.418)	current drive alignment quality parameter (1 = good , 0 = bad). Time-dependent.
i_boot	scenario_ref (7.9.8.1.418)	bootstrap current [A]. Time-dependent.
i_cd_tot	scenario_ref (7.9.8.1.418)	total current drive [A]. Time-dependent.
i_eccd	scenario_ref (7.9.8.1.418)	Electron Cyclotron current drive [A]. Time-dependent.
i_fast_ion	scenario_ref (7.9.8.1.418)	fast ions bootstrap like current drive (i.e. fast alpha) [A]. Time-dependent.
i_fwcd	scenario_ref (7.9.8.1.418)	Fast Wave current drive [A]. Time-dependent.
i_lhcd	scenario_ref (7.9.8.1.418)	Lower Hybrid current drive [A]. Time-dependent.
i_nbicd	scenario_ref (7.9.8.1.418)	Neutral Beam Injection current drive [A]. Time-dependent.
i_ni_tot	scenario_ref (7.9.8.1.418)	total non inductive current [A]. Time-dependent.
i_ohm	scenario_ref (7.9.8.1.418)	ohmic current [A]. Time-dependent.
i_par	scenario_ref (7.9.8.1.418)	total plasma current (projected on B : <J.B¿/B0) [A]. Time-dependent.
i_runaway	scenario_ref (7.9.8.1.418)	runaway current [A]. Time-dependent.
v_loop	scenario_ref (7.9.8.1.418)	loop voltage @ LCMS / LFS , equatorial point [V]. Time-dependent.
v_meas	scenario_ref (7.9.8.1.418)	loop voltage measured on a coil [V]. Time-dependent.

Type of: scenario:currents (4169)

7.9.8.1.406 scenario_edge

edge value (@ LCMS)

member	type	description
te_edge	scenario_ref (7.9.8.1.418)	edge electron temperature [eV]. Time-dependent.
ti_edge	scenario_ref (7.9.8.1.418)	edge ion temperature [eV]. Time-dependent.
ne_edge	scenario_ref (7.9.8.1.418)	edge electron density [m^-3]. Time-dependent.
ni_edge	scenario_ref (7.9.8.1.418)	edge ion density [m^-3]. Time-dependent.
psi_edge	scenario_ref (7.9.8.1.418)	edge poloidal flux [Wb]. Time-dependent.
phi_edge	scenario_ref (7.9.8.1.418)	edge toroidal flux [Wb]. Time-dependent.
rho_edge	scenario_ref (7.9.8.1.418)	edge value of internal simulator coordinate [m]. Time-dependent.
drho_edge_dt	scenario_ref (7.9.8.1.418)	time derivative of edge value of internal simulator coordinate [m/s]. Time-dependent.

member	type	description
q_edge	scenario_ref (7.9.8.1.418)	edge or effective safety factor value []. Time-dependent.
neutral_flux	scenario_ref (7.9.8.1.418)	number of cold neutral (in equivalent electron for Z ¿1) that input in plasma at the edge every second coming from recycling and gaz puff [s^-1]. Time-dependent.
phi_plasma	scenario_ref (7.9.8.1.418)	contribution of the plasma to the toroidal flux (used for toroidal coils heat load computation) [Wb]. Time-dependent.
vtor_edge	scenario_ref (7.9.8.1.418)	rotation velocity of selected impurity on the separatrix [m/s]. Time-dependent.

Type of: scenario:edge (4169)

7.9.8.1.407 scenario_energy

plasma energy content

member	type	description
w_tot	scenario_ref (7.9.8.1.418)	total plasma energy [J]. Time-dependent.
w_b_pol	scenario_ref (7.9.8.1.418)	poloidal field energy of the plasma [J]. Time-dependent.
w_dia	scenario_ref (7.9.8.1.418)	3/2 perpendicular plasma energy [J]. Time-dependent.
dwdia_dt	scenario_ref (7.9.8.1.418)	time derivative of Wdia [W]. Time-dependent.
w_b_tor_pla	scenario_ref (7.9.8.1.418)	toroidal magnetic plasma energy [J]. Time-dependent.
w_th	scenario_ref (7.9.8.1.418)	thermal plasma energy [J]. Time-dependent.
dwtot_dt	scenario_ref (7.9.8.1.418)	time derivative of total plasma energy [W]. Time-dependent.
dwbpol_dt	scenario_ref (7.9.8.1.418)	time derivative of plasma poloidal field energy [W]. Time-dependent.
dwbtorpla_dt	scenario_ref (7.9.8.1.418)	time derivative of toroidal magnetic plasma energy [W]. Time-dependent.
dwth_dt	scenario_ref (7.9.8.1.418)	time derivative of thermal plasma energy [W]. Time-dependent.
esup_icrhtot	scenario_ref (7.9.8.1.418)	total suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_icrhper	scenario_ref (7.9.8.1.418)	perpendicular part of suprathermal energy of fast ions accelerated by ICRH [J]. Time-dependent.
esup_nbitot	scenario_ref (7.9.8.1.418)	total suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_nbiperp	scenario_ref (7.9.8.1.418)	perpendicular part of suprathermal energy of fast ions from NBI ionisation [J]. Time-dependent.
esup_lhcd	scenario_ref (7.9.8.1.418)	total suprathermal energy of fast electron from LHCD [J]. Time-dependent.
esup_alpha	scenario_ref (7.9.8.1.418)	total suprathermal energy of fast alpha particules [J]. Time-dependent.

Type of: scenario:energy (4169)

7.9.8.1.408 scenario_global

global scalar value

member	type	description
ip	scenario_ref (7.9.8.1.418)	Plasma current [A]. Time-dependent.
dip_dt	scenario_ref (7.9.8.1.418)	time derivative of plasma current [A/s]. Time-dependent.
beta_pol	scenario_ref (7.9.8.1.418)	poloidal beta []. Time-dependent.
beta_tor	scenario_ref (7.9.8.1.418)	toroidal beta []. Time-dependent.
beta_normal	scenario_ref (7.9.8.1.418)	normalised beta []. Time-dependent.
li	scenario_ref (7.9.8.1.418)	internal inductance (definition 3). Time-dependent.
volume	scenario_ref (7.9.8.1.418)	total plasma volume [m^3]. Time-dependent.
area_pol	scenario_ref (7.9.8.1.418)	area poloidal cross section [m^2]. Time-dependent.
area_ext	scenario_ref (7.9.8.1.418)	external plasma surface [m^2]. Time-dependent.
len_sepa	scenario_ref (7.9.8.1.418)	length of the separatrix [m]. Time-dependent.
beta_pol_th	scenario_ref (7.9.8.1.418)	poloidal beta, thermal contribution []. Time-dependent.
beta_tor_th	scenario_ref (7.9.8.1.418)	toroidal beta, thermal contribution []. Time-dependent.
beta_n_th	scenario_ref (7.9.8.1.418)	normalised beta, thermal contribution []. Time-dependent.
disruption	scenario_ref (7.9.8.1.418)	flag for disruption (set to 1 for disruption, oterwise equal 0) []. Time-dependent.
mode_h	scenario_ref (7.9.8.1.418)	confinement mode verus time: 0 = L-mode et 1 = H-mode []. Time-dependent.
s_alpha	scenario_ref (7.9.8.1.418)	total number of alpha fusion particules from D-T ractions per second [s^-1]. Time-dependent.

Type of: scenario:global_param (4169)

7.9.8.1.409 scenario_heat_power

Power delivred to plasma (thermal an non thermal)

member	type	description
plh	scenario_ref (7.9.8.1.418)	Lower hybrid power [W]. Time-dependent.
pohmic	scenario_ref (7.9.8.1.418)	ohmic power (thermal species contribution only) [W]. Time-dependent.
picrh	scenario_ref (7.9.8.1.418)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.8.1.418)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.8.1.418)	neutral beam injection power [W]. Time-dependent.
pnbi_co_cur	scenario_ref (7.9.8.1.418)	neutral beam injection power injeted in co-current direction [W]. Time-dependent.
pnbi_counter	scenario_ref (7.9.8.1.418)	neutral beam injection power injeted in counter-current direction [W]. Time-dependent.
plh_th	scenario_ref (7.9.8.1.418)	lower hybrid power deposited on thermal electrons [W]. Time-dependent.
picrh_th	scenario_ref (7.9.8.1.418)	ion cyclotron resonnance heating power deposited on thermal species [W]. Time-dependent.
pecrh_th	scenario_ref (7.9.8.1.418)	electron cyclotron resonnance heating power deposited on thermal electrons [W]. Time-dependent.
pnbi_th	scenario_ref (7.9.8.1.418)	neutral beam injection power deposited on thermal species [W]. Time-dependent.
ploss_icrh	scenario_ref (7.9.8.1.418)	Ion cyclotron resonnance heating power losses [W]. Time-dependent.
ploss_nbi	scenario_ref (7.9.8.1.418)	neutral beam injection power losses (including shine-through) [W]. Time-dependent.
pbrem	scenario_ref (7.9.8.1.418)	Bremsstrahlung radition losses [W]. Time-dependent.
pcyclo	scenario_ref (7.9.8.1.418)	cyclotron radiation losses [W]. Time-dependent.
prad	scenario_ref (7.9.8.1.418)	impurity radition losses in core plamsa , without Bremsstrahlung [W]. Time-dependent.
pdd_fus	scenario_ref (7.9.8.1.418)	fusion power due to DD reactions [W]. Time-dependent.
pei	scenario_ref (7.9.8.1.418)	power exchange between eletron and ion (equipartition) [W]. Time-dependent.
pel_tot	scenario_ref (7.9.8.1.418)	total thermal electron power deposition without equipartition [W]. Time-dependent.
pel_fus	scenario_ref (7.9.8.1.418)	fusion electron power deposition [W]. Time-dependent.
pel_icrh	scenario_ref (7.9.8.1.418)	ICRH electron power deposition [W]. Time-dependent.
pel_nbi	scenario_ref (7.9.8.1.418)	NBI electron power deposition [W]. Time-dependent.
pfus_dt	scenario_ref (7.9.8.1.418)	total D-T fusion power of alpha [W]. Time-dependent.
ploss_fus	scenario_ref (7.9.8.1.418)	D-T fusion power of alpha losses [W]. Time-dependent.
pfus_nbi	scenario_ref (7.9.8.1.418)	NBI induce D-T fusion power of alpha [W]. Time-dependent.
pfus_th	scenario_ref (7.9.8.1.418)	alpha (from DT fusion reaction) power deposited on thermal species [W]. Time-dependent.
padd_tot	scenario_ref (7.9.8.1.418)	total additional power input including ohmic power [W]. Time-dependent.
pion_tot	scenario_ref (7.9.8.1.418)	total thermal ion power deposition without equipartition [W]. Time-dependent.
pion_fus	scenario_ref (7.9.8.1.418)	fusion ion power deposition [W]. Time-dependent.
pion_icrh	scenario_ref (7.9.8.1.418)	ICRH ion power deposition [W]. Time-dependent.
pion_nbi	scenario_ref (7.9.8.1.418)	NBI ion power deposition [W]. Time-dependent.
pioniz	scenario_ref (7.9.8.1.418)	power losses due to cold neutral ionization [W]. Time-dependent.
ploss	scenario_ref (7.9.8.1.418)	plasma losses power, as define in ITER basis [W]. Time-dependent.
p_wth	scenario_ref (7.9.8.1.418)	thermal power input, define as tau_E * P_th = Wth [W]. Time-dependent.
p_w	scenario_ref (7.9.8.1.418)	effective power define as tau_E * P_w = W_tot [W]. Time-dependent.
p_l2h_thr	scenario_ref (7.9.8.1.418)	additionnal power crossing the LCMS; must be compare to L-¿H threshold power (Ryter PPCF 2002) [W]. Time-dependent.
p_l2h_sc	scenario_ref (7.9.8.1.418)	threshold power given by the choosen scaling law for transition from L-mode to H-mode [W]. Time-dependent.
p_nbi_icrh	scenario_ref (7.9.8.1.418)	beam power increase due to ICRH effects [W]. Time-dependent.

Type of: scenario:heat_power (4169)

7.9.8.1.410 scenario_int

Structure for scenario integer flag; Time-dependent

member	type	description
value	integer (7.9.8.1.3)	Signal value; Time-dependent; Scalar Integer.
source	string (7.9.8.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_configuration:config (4506) I scenario_configuration:ecrh_harm (4506) I scenario_configuration:ecrh_mode (4506) I scenario_configuration:grad_b_drift (4506) I scenario_itb:itb_type (4514)

7.9.8.1.411 scenario_itb

Values characteristics of the Internal Transport Barrier

member	type	description
q_min	scenario_ref (7.9.8.1.418)	minimal value of safety factor []. Time-dependent.
te_itb	scenario_ref (7.9.8.1.418)	electron temperature @ q = q_min [eV]. Time-dependent.
ti_itb	scenario_ref (7.9.8.1.418)	ion temperature @ q = q_min [eV]. Time-dependent.
ne_itb	scenario_ref (7.9.8.1.418)	electron density @ q = q_min [m^-3]. Time-dependent.
ni_itb	scenario_ref (7.9.8.1.418)	ion density @ q = q_min [m^-3]. Time-dependent.
psi_itb	scenario_ref (7.9.8.1.418)	poloidal flux @ q = q_min [Wb]. Time-dependent.
phi_itb	scenario_ref (7.9.8.1.418)	toroidal flux @ q = q_min [Wb]. Time-dependent.
rho_itb	scenario_ref (7.9.8.1.418)	value of internal simulator coordinate @ q = q_min [m]. Time-dependent.
h_itb	scenario_ref (7.9.8.1.418)	energy enhancement ITB factor [m]. Time-dependent.
width_itb	scenario_ref (7.9.8.1.418)	width of the high pressure gradient region (on scale of rho_itb) [m]. Time-dependent.
vtor_itb	scenario_ref (7.9.8.1.418)	rotation velocity of selected impurity @ rho_itb [m/s]. Time-dependent.
itb_type	scenario_int (7.9.8.1.410)	itb type []. Time-dependent. Any combinaison of :0 = none; 1 = on T_i; 2 = on T_e; 4 = on n_e; 8 = reverse shear triggered; 16 = toroidal rotation triggered; 32 = alpha stabilisation triggered; 64 = T_i /T_e triggered; 128 = radiation triggered; 256 = rationnal q triggered

Type of: scenario:itb (4169)

7.9.8.1.412 scenario_lim_div_wall

values on the plate of divertor or on the limitor or on the wall (@ LCMS)

member	type	description
te_lim_div	scenario_ref (7.9.8.1.418)	limiter/divertor electron temperature [eV]. Time-dependent.
ti_lim_div	scenario_ref (7.9.8.1.418)	limiter/divertor ion temperature [eV]. Time-dependent.
ne_lim_div	scenario_ref (7.9.8.1.418)	limiter/divertor electron density [m^-3]. Time-dependent.
ni_lim_div	scenario_ref (7.9.8.1.418)	limiter/divertor ion density [m^-3]. Time-dependent.
q_peak_div	scenario_ref (7.9.8.1.418)	Peak power flux on limiter or divertor plate [W.m^-2]. Time-dependent.
q_peak_wall	scenario_ref (7.9.8.1.418)	Peak power flux on the wall [W.m^-2]. Time-dependent.
surf_temp	scenario_ref (7.9.8.1.418)	limiter surface or divertor plate temperature [K]. Time-dependent.
p_lim_div	scenario_ref (7.9.8.1.418)	Total power on limiter or divertor plate [W]. Time-dependent.
p_rad_div	scenario_ref (7.9.8.1.418)	radiative power in the divertor zone [W]. Time-dependent.
p_neut_div	scenario_ref (7.9.8.1.418)	Neutral pressure in the divertor zone [Pa]; Time-dependent.
p_wall	scenario_ref (7.9.8.1.418)	Total power on the wall [W]. Time-dependent.
wall_temp	scenario_ref (7.9.8.1.418)	wall temperature [K]. Time-dependent.
wall_state	scenario_ref (7.9.8.1.418)	saturation state of the wall (0 = completly pumping wall, 1 = competely saturate wall) []. Time-dependent.
detach_state	scenario_ref (7.9.8.1.418)	plasma detachement state (0= attach plasma, 1 = completely detach plasma) []. Time-dependent.
pump_flux	scenario_ref (7.9.8.1.418)	flux pump out for each ion species [s^-1]. Time-dependent.
p_rad_fw	scenario_ref (7.9.8.1.418)	Radiated power on the first wall [W]; Time-dependent
p_cond_fw	scenario_ref (7.9.8.1.418)	Conducted/convected power on the first wall [W]; Time-dependent
div_wetted	scenario_ref (7.9.8.1.418)	Divertor wetted area [m^2]; Time-dependent
gas_puff	scenario_ref (7.9.8.1.418)	Gas puff (D/T) in the divertor (PFR) [Pa.m^3.s^-1]; Time-dependent
ar_concentr	scenario_ref (7.9.8.1.418)	Argon concentration in the divertor; Time-dependent
part_exhaust	scenario_ref (7.9.8.1.418)	Assuming a pumping speed [Pa.m^3.s^-1]; Time-dependent
f_inner	scenario_ref (7.9.8.1.418)	Fraction of power to the inner divertor; Time-dependent
f_outer	scenario_ref (7.9.8.1.418)	Fraction of power to the outer divertor; Time-dependent
f_pfr	scenario_ref (7.9.8.1.418)	Fraction of power flowing into the private flux region; Time-dependent
f_rad_fw	scenario_ref (7.9.8.1.418)	Fraction of the divertor radiated power deposited in the main chamber; Time-dependent
q_div	vecflt_type (7.9.8.1.18)	Heat flux on divertor plate [W/m^2]; Vector(theta). Time-dependent
p_cond_div	scenario_ref (7.9.8.1.418)	Conducted/convected power on divertor plate [W]; Time-dependent
pol_ext	float (7.9.8.1.2)	Poloidal extension of the divertor or outer major radius of the divertor region (and inner major radius) [rad]; Scalar
flux_exp	float (7.9.8.1.2)	Flux expansion at the divertor plate ((B_theta/B)midplane)/((B_theta/B)target); Scalar
tilt_angle	float (7.9.8.1.2)	Tilt angle between the field lines and the divertor plate in a poloidal plane [rad]; Scalar
n_div	float (7.9.8.1.2)	Number of divertor, assuming symmetric configuration; Scalar
div_dz	float (7.9.8.1.2)	Divertor extension in z direction from the x-point [m]; Scalar
div_dro	float (7.9.8.1.2)	Divertor extension in r outward direction from the x-point [m]; Scalar
div_dri	float (7.9.8.1.2)	Divertor extension in r intward direction from the x-point [m]; Scalar

member	type	description
p_nh_div	scenario_ref (7.9.8.1.418)	Total nuclear heating in divertor [W]. Time-dependent.

Type of: scenario:lim_div_wall (4169)

7.9.8.1.413 scenario_line_ave

line averaged value

member	type	description
ne_line	scenario_ref (7.9.8.1.418)	line averaged electron density [m^-3]. Time-dependent.
zeff_line	scenario_ref (7.9.8.1.418)	line averaged effective charge. Time-dependent.
ne_zeff_line	scenario_ref (7.9.8.1.418)	line averaged electron density * Zeff . Time-dependent.
dne_line_dt	scenario_ref (7.9.8.1.418)	time derivative of line averaged electron density [m^-3/s]. Time-dependent.

Type of: scenario:line_ave (4169)

7.9.8.1.414 scenario_neutron

neutron flux for DD and DT reactions

member	type	description
ndd_tot	scenario_ref (7.9.8.1.418)	total neutron flux coming from DD reactions [Hz]. Time-dependent.
ndd_th	scenario_ref (7.9.8.1.418)	neutron flux coming from thermal DD reactions [Hz]. Time-dependent.
ndd_nbi_th	scenario_ref (7.9.8.1.418)	neutron flux coming from beam/plasma DD reactions [Hz]. Time-dependent.
ndd_nbi_nbi	scenario_ref (7.9.8.1.418)	neutron flux coming from beam/beam DD reactions [Hz]. Time-dependent.
ndt_tot	scenario_ref (7.9.8.1.418)	total neutron flux coming from DT reactions [Hz]. Time-dependent.
ndt_th	scenario_ref (7.9.8.1.418)	neutron flux coming from thermal DT reactions [Hz]. Time-dependent.

Type of: scenario:neutron (4169)

7.9.8.1.415 scenario_ninety_five

values at 95% of poloidal flux

member	type	description
q_95	scenario_ref (7.9.8.1.418)	safety factor value @ 95 % of poloidal flux span []. Time-dependent.
elong_95	scenario_ref (7.9.8.1.418)	plasma elongation @ 95 % of poloidal flux span []. Time-dependent.
tria_95	scenario_ref (7.9.8.1.418)	averaged plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_up_95	scenario_ref (7.9.8.1.418)	upper plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
tria_lo_95	scenario_ref (7.9.8.1.418)	lower plasma triangularity @ 95 % of poloidal flux span []. Time-dependent.
te_95	scenario_ref (7.9.8.1.418)	electron temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ti_95	scenario_ref (7.9.8.1.418)	ion temperature @ 95 % of poloidal flux [eV]. Time-dependent.
ne_95	scenario_ref (7.9.8.1.418)	electron density @ 95 % of poloidal flux [m^-3]. Time-dependent.
ni_95	scenario_ref (7.9.8.1.418)	ion density @ 95 % of poloidal flux [m^-3]. Time-dependent.
phi_95	scenario_ref (7.9.8.1.418)	toroidal flux @ 95 % of poloidal flux [Wb]. Time-dependent.
rho_95	scenario_ref (7.9.8.1.418)	value of internal simulator coordinate @ 95 % of poloidal flux [m]. Time-dependent.
vtor_95	scenario_ref (7.9.8.1.418)	rotation velocity of selected impurity @ 95 % of poloidal flux [m/s]. Time-dependent.

Type of: scenario:ninety_five (4169)

7.9.8.1.416 scenario_pedestal

Values at the top of the H-mode pedestal

member	type	description
te_ped	scenario_ref (7.9.8.1.418)	pedestal electron temperature [eV]. Time-dependent.
ti_ped	scenario_ref (7.9.8.1.418)	pedestal ion temperature [eV]. Time-dependent.
ne_ped	scenario_ref (7.9.8.1.418)	pedestal electron density [m^-3]. Time-dependent.
ni_ped	scenario_ref (7.9.8.1.418)	pedestal ion density [m^-3]. Time-dependent.
psi_ped	scenario_ref (7.9.8.1.418)	pedestal poloidal flux [Wb]. Time-dependent.

member	type	description
phi_ped	scenario_ref (7.9.8.1.418)	pedestal toroidal flux [Wb]. Time-dependent.
rho_ped	scenario_ref (7.9.8.1.418)	top pedestal value of internal simulator coordinate [m]. Time-dependent.
q_ped	scenario_ref (7.9.8.1.418)	top pedestal safety factor value []. Time-dependent.
pressure_ped	scenario_ref (7.9.8.1.418)	top pedestal thermal pressure (n_e * T_e + n_i * T_i) [Pa]. Time-dependent.
vtor_ped	scenario_ref (7.9.8.1.418)	top pedestal value of rotation velocity of selected impurity [m/s]. Time-dependent.

Type of: scenario:pedestal (4169)

7.9.8.1.417 scenario_reactor

reactor data (such as electricity cost ...)

member	type	description
pnetwork	float (7.9.8.1.2)	reactor electric power provide to the network [W].

Type of: scenario:reactor (4169)

7.9.8.1.418 scenario_ref

Structure for scenario reference; Time-dependent

member	type	description
value	float (7.9.8.1.2)	Signal value; Time-dependent; Scalar
source	string (7.9.8.1.4)	Source of the signal (any comment describing the origin of the signal : code, path to diagnostic signals, massaging, ...); String

Type of: scenario_centre:Rmag (4504) I scenario_centre:Zmag (4504) I scenario_centre:ne0 (4504) I scenario_centre:ni0 (4504) I scenario_centre:phi0 (4504) I scenario_centre:psi0 (4504) I scenario_centre:q0 (4504) I scenario_centre:shift0 (4504) I scenario_centre:te0 (4504) I scenario_centre:ti0 (4504) I scenario_centre:vtor_0 (4504) I scenario_configuration:LH_freq (4506) I scenario_configuration:LH_npar (4506) I scenario_configuration:ecrh_freq (4506) I scenario_configuration:ecrh_loc (4506) I scenario_configuration:ecrh_pol_ang (4506) I scenario_configuration:ecrh_tor_ang (4506) I scenario_configuration:enb (4506) I scenario_configuration:icrh_freq (4506) I scenario_configuration:icrh_phase (4506) I scenario_configuration:pellet_ang (4506) I scenario_configuration:pellet_nba (4506) I scenario_configuration:pellet_v (4506) I scenario_configuration:r_nbi (4506) I scenario_confinement:tau_cur_diff (4507) I scenario_confinement:tau_e (4507) I scenario_confinement:tau_e_ee (4507) I scenario_confinement:tau_e_ei (4507) I scenario_confinement:tau_e_ii (4507) I scenario_confinement:tau_h_sc (4507) I scenario_confinement:tau_he (4507) I scenario_confinement:tau_i_rol (4507) I scenario_confinement:tau_l_sc (4507) I scenario_currents:RR (4508) I scenario_currents:i_align (4508) I scenario_currents:i_boot (4508) I scenario_currents:i_cd_tot (4508) I scenario_currents:i_eccd (4508) I scenario_currents:i_fast_ion (4508) I scenario_currents:i_fwcd (4508) I scenario_currents:i_lhcd (4508) I scenario_currents:i_nbicd (4508) I scenario_currents:i_ni_tot (4508) I scenario_currents:i_ohm (4508) I scenario_currents:i_par (4508) I scenario_currents:i_runaway (4508) I scenario_currents:v_loop (4508) I scenario_currents:v_meas (4508) I scenario_edge:drho_edge_dt (4509) I scenario_edge:ne_edge (4509) I scenario_edge:neutral_flux (4509) I scenario_edge:ni_edge (4509) I scenario_edge:phi_edge (4509) I scenario_edge:phi_plasma (4509) I scenario_edge:psi_edge (4509) I scenario_edge:q_edge (4509) I scenario_edge:rho_edge (4509) I scenario_edge:te_edge (4509) I scenario_edge:ti_edge (4509) I scenario_edge:vtor_edge (4509) I scenario_energy:dwbpol_dt (4510) I scenario_energy:dwbtorpla_dt (4510) I scenario_energy:dwdia_dt (4510) I scenario_energy:dwth_dt (4510) I scenario_energy:dwtot_dt (4510) I scenario_energy:esup_alpha (4510) I scenario_energy:esup_icrhper (4510) I scenario_energy:esup_icrhtot (4510) I scenario_energy:esup_lhcd (4510) I scenario_energy:esup_nbiperp (4510) I scenario_energy:esup_nbitot (4510) I scenario_energy:w_b_pol (4510) I scenario_energy:w_b_tor_pla (4510) I scenario_energy:w_dia (4510) I scenario_energy:w_th (4510) I scenario_energy:w_tot (4510) I scenario_global:area_ext (4511) I scenario_global:area_pol (4511) I scenario_global:beta_n_th (4511) I scenario_global:beta_normal (4511) I scenario_global:beta_pol (4511) I scenario_global:beta_pol_th (4511) I scenario_global:beta_tor (4511) I scenario_global:beta_tor_th (4511) I scenario_global:dip_dt (4511) I scenario_global:disruption (4511) I scenario_global:ip (4511) I scenario_global:len_sepa (4511) I scenario_global:li (4511) I scenario_global:mode_h (4511) I scenario_global:s_alpha (4511) I scenario_global:volume (4511) I scenario_heat_power:p_l2h_sc (4512) I scenario_heat_power:p_l2h_thr (4512) I scenario_heat_power:p_nbi_icrh (4512) I scenario_heat_power:p_w (4512) I scenario_heat_power:p_wth (4512) I scenario_heat_power:padd_tot (4512) I scenario_heat_power:pbrem (4512) I scenario_heat_power:pcyclo (4512) I scenario_heat_power:pdd_fus (4512) I scenario_heat_power:pecrh (4512) I scenario_heat_power:pecrh_th (4512) I scenario_heat_power:pei (4512) I scenario_heat_power:pel_fus (4512) I scenario_heat_power:pel_icrh (4512) I scenario_heat_power:pel_nbi (4512) I scenario_heat_power:pel_tot (4512) I scenario_heat_power:pfus_dt (4512) I scenario_heat_power:pfus_nbi (4512) I scenario_heat_power:pfus_th (4512) I scenario_heat_power:picrh

(4512) I scenario_heat_power:picrh_th (4512) I scenario_heat_power:pion_fus (4512) I scenario_heat_power:pion_icrh (4512) I scenario_heat_power:pion_nbi (4512) I scenario_heat_power:pion_tot (4512) I scenario_heat_power:pioniz (4512) I scenario_heat_power:plh (4512) I scenario_heat_power:plh_th (4512) I scenario_heat_power:ploss (4512) I scenario_heat_power:ploss_fus (4512) I scenario_heat_power:ploss_icrh (4512) I scenario_heat_power:ploss_nbi (4512) I scenario_heat_power:pnbi (4512) I scenario_heat_power:pnbi_co_cur (4512) I scenario_heat_power:pnbi_counter (4512) I scenario_heat_power:pnbi_th (4512) I scenario_heat_power:pohmic (4512) I scenario_heat_power:prad (4512) I scenario_itb:h_itb (4514) I scenario_itb:ne_itb (4514) I scenario_itb:ni_itb (4514) I scenario_itb:phi_itb (4514) I scenario_itb:psi_itb (4514) I scenario_itb:q_min (4514) I scenario_itb:rho_itb (4514) I scenario_itb:te_itb (4514) I scenario_itb:ti_itb (4514) I scenario_itb:vtor_itb (4514) I scenario_itb:width_itb (4514) I scenario_lim_div_wall:ar_concer (4515) I scenario_lim_div_wall:detach_state (4515) I scenario_lim_div_wall:div_wetted (4515) I scenario_lim_div_wall:f_inner (4515) I scenario_lim_div_wall:f_outer (4515) I scenario_lim_div_wall:f_pfr (4515) I scenario_lim_div_wall:f_rad_fw (4515) I scenario_lim_div_wall:gas_puff (4515) I scenario_lim_div_wall:ne_lim_div (4515) I scenario_lim_div_wall:ni_lim_div (4515) I scenario_lim_div_wall:p_cond_div (4515) I scenario_lim_div_wall:p_cond_fw (4515) I scenario_lim_div_wall:p_lim_div (4515) I scenario_lim_div_wall:p_neut_div (4515) I scenario_lim_div_wall:p_nh_div (4515) I scenario_lim_div_wall:p_rad_div (4515) I scenario_lim_div_wall:p_rad_fw (4515) I scenario_lim_div_wall:p_wall (4515) I scenario_lim_div_wall:part_exhaust (4515) I scenario_lim_div_wall:pump_flux (4515) I scenario_lim_div_wall:q_peak_div (4515) I scenario_lim_div_wall:q_peak_wa (4515) I scenario_lim_div_wall:surf_temp (4515) I scenario_lim_div_wall:te_lim_div (4515) I scenario_lim_div_wall:ti_lim_div (4515) I scenario_lim_div_wall:wall_state (4515) I scenario_lim_div_wall:wall_temp (4515) I scenario_line_ave:dne_line_dt (4516) I scenario_line_ave:ne_line (4516) I scenario_line_ave:ne_zeff_line (4516) I scenario_line_ave:zeff_line (4516) I scenario_neutron:ndd_nbi_nbi (4517) I scenario_neutron:ndd_nbi_th (4517) I scenario_neutron:ndd_th (4517) I scenario_neutron:ndd_tot (4517) I scenario_neutron:ndt_th (4517) I scenario_neutron:ndt_tot (4517) I scenario_ninety_five:elon (4518) I scenario_ninety_five:ne_95 (4518) I scenario_ninety_five:ni_95 (4518) I scenario_ninety_five:phi_95 (4518) I scenario_ninety_five:q_95 (4518) I scenario_ninety_five:rho_95 (4518) I scenario_ninety_five:te_95 (4518) I scenario_ninety_five:ti_95 (4518) I scenario_ninety_five:tria_95 (4518) I scenario_ninety_five:tria_lo_95 (4518) I scenario_ninety_five:tria_up_95 (4518) I scenario_ninety_five:vtor_95 (4518) I scenario_pedestal:ne_ped (4519) I scenario_pedestal:ni_ped (4519) I scenario_pedestal:phi_ped (4519) I scenario_pedestal:pressure_ped (4519) I scenario_pedestal:psi_ped (4519) I scenario_pedestal:q_ped (4519) I scenario_pedestal:rho_ped (4519) I scenario_pedestal:te_ped (4519) I scenario_pedestal:ti_ped (4519) I scenario_pedestal:vtor_ped (4519) I scenario_references:bvac_r (4522) I scenario_references:enhancement (4522) I scenario_references:gas_puff (4522) I scenario_references:ip (4522) I scenario_references:isotopic (4522) I scenario_references:nbar (4522) I scenario_references:nbi_td_ratio (4522) I scenario_references:pecrh (4522) I scenario_references:picrh (4522) I scenario_references:plh (4522) I scenario_references:pnbi (4522) I scenario_references:pol_flux (4522) I scenario_references:xecrh (4522) I scenario_references:zeffl (4522) I scenario_sol:gas_puff (4523) I scenario_sol:l_ne_sol (4523) I scenario_sol:l_ni_sol (4523) I scenario_sol:l_qe_sol (4523) I scenario_sol:l_qi_sol (4523) I scenario_sol:l_te_sol (4523) I scenario_sol:l_ti_sol (4523) I scenario_sol:p_rad_sol (4523) I scenario_vol_ave:dne_ave_dt (4524) I scenario_vol_ave:meff_ave (4524) I scenario_vol_ave:ne_ave (4524) I scenario_vol_ave:ni_ave (4524) I scenario_vol_ave:omega_ave (4524) I scenario_vol_ave:pellet_flux (4524) I scenario_vol_ave:te_ave (4524) I scenario_vol_ave:ti_ave (4524) I scenario_vol_ave:ti_o_te_ave (4524) I scenario_vol_ave:zeff_ave (4524)

7.9.8.1.419 scenario_references

References

member	type	description
plh	scenario_ref (7.9.8.1.418)	Lower hybrid power [W]. Time-dependent.
picrh	scenario_ref (7.9.8.1.418)	Ion cyclotron resonnance heating power [W]. Time-dependent.
pecrh	scenario_ref (7.9.8.1.418)	electron cyclotron resonnance heating power [W]. Time-dependent.
pnbi	scenario_ref (7.9.8.1.418)	neutral beam injection power [W]. Time-dependent.
ip	scenario_ref (7.9.8.1.418)	Plasma current [A]. Time-dependent.
bvac_r	scenario_ref (7.9.8.1.418)	Vacuum field times radius in the toroidal field magnet [T.m]. Time-dependent.
zeffl	scenario_ref (7.9.8.1.418)	line averaged effective charge []. Time-dependent.
nbar	scenario_ref (7.9.8.1.418)	line averaged electron density [m^-3]. Time-dependent.
xecrh	scenario_ref (7.9.8.1.418)	position of maximum (normalized rho coordinate) of electron cyclotron resonnance heating power []. Time-dependent.
pol_flux	scenario_ref (7.9.8.1.418)	separatrix poloidal flux [Wb]. Time-dependent.
enhancement	scenario_ref (7.9.8.1.418)	energy enhancement factor []. Time-dependent.
isotopic	scenario_ref (7.9.8.1.418)	ratio between tritium and deuterium density (for burning plasma) []. Time-dependent.
nbi_td_ratio	scenario_ref (7.9.8.1.418)	ratio between tritium and deuterium power in neutral beam injection []. Time-dependent.
gas_puff	scenario_ref (7.9.8.1.418)	gas puff flux reference, in equivalent [electrons.s^-1]. Time-dependent.

Type of: scenario:references (4169)

7.9.8.1.420 scenario_sol

SOL characteristic (@ LCMS)

member	type	description
l_te_sol	scenario_ref (7.9.8.1.418)	electron temperature radial decay length [m]. Time-dependent.
l_ti_sol	scenario_ref (7.9.8.1.418)	ion temperature radial decay length [m]. Time-dependent.
l_ne_sol	scenario_ref (7.9.8.1.418)	electron density radial decay length [m]. Time-dependent.
l_ni_sol	scenario_ref (7.9.8.1.418)	ion density radial decay length [m]. Time-dependent.
l_qe_sol	scenario_ref (7.9.8.1.418)	electron heat flux radial decay length [m]. Time-dependent.
l_qi_sol	scenario_ref (7.9.8.1.418)	ion heat flux radial decay length [m]. Time-dependent.
p_rad_sol	scenario_ref (7.9.8.1.418)	radiative power of the SOL [W]. Time-dependent.
p_neut	float (7.9.8.1.2)	Neutral pressure of the SOL [Pa]; Scalar
gas_puff	scenario_ref (7.9.8.1.418)	gas puff flux for each ion species [s^-1]. Time-dependent.
delta_r_in	float (7.9.8.1.2)	Inner gap between the plasma and the first wall [m]; Scalar
delta_r_out	float (7.9.8.1.2)	Outer gap between the plasma and the first wall [m]; Scalar
r_in	float (7.9.8.1.2)	Inner radius of the first wall [m]; Scalar
r_out	float (7.9.8.1.2)	Outer radius of the first wall [m]; Scalar
sol_width	float (7.9.8.1.2)	Width of the SOL (the heat flux is assumed to fall off exponentially in the SOL according to the width parameter) [m]; Scalar

Type of: scenario:sol (4169)

7.9.8.1.421 scenario_vol_ave

volume averaged values

member	type	description
te_ave	scenario_ref (7.9.8.1.418)	volume averaged electron temperature [eV]. Time-dependent.
ti_ave	scenario_ref (7.9.8.1.418)	volume averaged ion temperature [eV]. Time-dependent.
ne_ave	scenario_ref (7.9.8.1.418)	volume averaged electron density [m^-3]. Time-dependent.
dne_ave_dt	scenario_ref (7.9.8.1.418)	time derivative of volume averaged electron density [m^-3/s]. Time-dependent.
ni_ave	scenario_ref (7.9.8.1.418)	volume averaged ion density (<sum(n_k)¿, k in species) [m^-3]. Time-dependent.
zeff_ave	scenario_ref (7.9.8.1.418)	volume averaged effective charge. Time-dependent.
ti_o_te_ave	scenario_ref (7.9.8.1.418)	volume averaged ion temperature over electron temperature (<Ti/Te¿) []. Time-dependent.
meff_ave	scenario_ref (7.9.8.1.418)	volume averaged effectice mass (<sum(n_k * m_k) ¿ / < sum(n_k)¿) []. Time-dependent.
pellet_flux	scenario_ref (7.9.8.1.418)	number of electrons fuelling the plasma every second coming from pellet injection [s^-1]. Time-dependent.
nions_ave	vecflt_type (7.9.8.1.18)	volume averaged ions densities (vector, one element per ion species) [m^-3]. Time-dependent.
omega_ave	scenario_ref (7.9.8.1.418)	bulk volume average toroidal rotation velocity (whole plasma) [rad/s]. Time-dependent.

Type of: scenario:vol_ave (4169)

7.9.8.1.422 setup_bprobe

diagnostic setup information

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of the probe. Array of strings (nprobes).
id	vecstring_type (7.9.8.1.20)	ID of the probe. Array of strings (nprobes).
position	rz1D (7.9.8.1.387)	RZ of coil centre [m]; Vector (nprobes)
polangle	vecflt_type (7.9.8.1.18)	Poloidal angle of coil orientation (w.r.t. horizontal ?? to be checked) [rad]; Vector (nprobes)
torangle	vecflt_type (7.9.8.1.18)	Toroidal angle of coil orientation (0 if fully in the poloidal plane) [rad] ; Vector (nprobes)
area	vecflt_type (7.9.8.1.18)	Area of coil [m^2]; Vector (nprobes)
length	vecflt_type (7.9.8.1.18)	Length of coil [m]; Vector (nprobes)
turns	vecint_type (7.9.8.1.19)	Turns in the coil; Vector (nprobes)

Type of: bpol_probes:setup_bprobe (4201)

7.9.8.1.423 setup_floops

diagnostic setup information

member	type	description
name	vecstring_type (7.9.8.1.20)	Name of loop. Array of strings (nloops).
id	vecstring_type (7.9.8.1.20)	ID of loop. Array of strings (nloops).
position	rzphi2D (7.9.8.1.396)	List of (R,Z,phi) points defining the position of the loop (see data structure documentation FLUXLOOPposition.pdf); Matrices (nloops, max_npoints)
npoints	vecint_type (7.9.8.1.19)	Number of points describing each loop in the "position" matrices. Vector (nloops)

Type of: flux_loops:setup_floops (4335)

7.9.8.1.424 setup_line

Geometric description of the lines of sight for line integral diagnostic

member	type	description
pivot_point	rzphi1D (7.9.8.1.393)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.8.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.8.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.8.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1D (7.9.8.1.393)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.8.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.8.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1D (7.9.8.1.393)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.8.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: bolometer_setup:los (4195) I fusiondiag_colli_circ:setup_line (4342) I fusiondiag_colli_poly:setup_line (4343) I lineintegraldiag:setup_line (4385)

7.9.8.1.425 setup_line_exp

Geometric description of the lines of sight for line integral diagnostic with additional appinfo tags to have some nodes both in MD and DM

member	type	description
pivot_point	rzphi1Dexperimental (7.9.8.1.395)	Pivot point of each line of sight; Vector (nchords)
horchordang1	vecflt_type (7.9.8.1.18)	Angle [rad] of horizontal projection of l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang1	vecflt_type (7.9.8.1.18)	Angle of chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
width	vecflt_type (7.9.8.1.18)	Width of the laser beam (1/e) [m]; Vector (nchords)
second_point	rzphi1Dexperimental (7.9.8.1.395)	Second point defining the line of sight together with the pivot_point. In case the probing wave is reflected, this should be the position of the mirror. This data is redundant with horchordang1 and verchordang1. Vector (nchords).
horchordang2	vecflt_type (7.9.8.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle [rad] of horizontal projection of reflected l.o.s. with poloidal cross section (0 for HFS to LFS chord - see Convention_angles_interfdiag.pdf) [rad]. Vector (nchords)
verchordang2	vecflt_type (7.9.8.1.18)	For reflected l.o.s. only (undefined otherwise) : Angle of reflected chord with vertical axis (0 for bottom-top chord, Pi for top-bottom chord - see Convention_angles_interfdiag.pdf) [rad]; Vector (nchords)
third_point	rzphi1Dexperimental (7.9.8.1.395)	Third point defining the reflected line of sight together with the second_point (undefined if the probing wave is not reflected). This data is redundant with horchordang2 and verchordang2. Vector (nchords).
nchordpoints	integer (7.9.8.1.3)	Number of points along the viewing chords (used for synthetic diagnostic signal reconstruction)

Type of: bremsstrahl_setup:los (4203) I ecesetup:los (4306)

7.9.8.1.426 shield

Shield

member	type	description
inboard	shield_specs (7.9.8.1.427)	Inboard
outboard	shield_specs (7.9.8.1.427)	Outboard

Type of: bb_shield:shield (4129)

7.9.8.1.427 shield_specs

Inboard

member	type	description
nmat	integer (7.9.8.1.3)	Number of materials; Scalar
composition	vecflt_type (7.9.8.1.18)	Inboard or outboard shield radial build the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector(nmat).
r1	float (7.9.8.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
r2	float (7.9.8.1.2)	Outer radius (farest to the plasma), in the global tokamak coordinate system of the inboard or outboard shield located at the equatorial plane [m]; Scalar
mass	float (7.9.8.1.2)	Mass of inboard or outboard shield [Kg]; Scalar

Type of: shield:inboard (4529) I shield:outboard (4529)

7.9.8.1.428 simp_apert

Simple aperture specification: rectangular or elliptical

member	type	description
type	identifier (7.9.8.1.263)	Shape identifier; 0: rectangular, 1: elliptical
sizes	vecflt_type (7.9.8.1.18)	Rectangular size a, b or diameters for elliptical shapes [m]; Time-dependent; Vector (2)
angle	float (7.9.8.1.2)	Rotation of aperture around its center [rad]

Type of: reflectometry_radfield_gaussian:aperture (4483)

7.9.8.1.429 solcurdiag_sol_current

Vector of toroidal rings of divertor tiles. Structure array(nrings). Time-dependent

member	type	description
setup	solcurdiag_sol_current_setup (7.9.8.1.430)	diagnostic setup information
measure	exp0D (7.9.8.1.224)	Measured value for the current through the toroidal ring of tiles [A]; Time-dependent; Scalar

Type of: solcurdiag:sol_current (4170)

7.9.8.1.430 solcurdiag_sol_current_setup

diagnostic setup information

member	type	description
name	string (7.9.8.1.4)	Name of the toroidally distributed tile set. String.
id	integer (7.9.8.1.3)	ID of the tile set as a scalar, to be used in connectivity. Integer.
position	rz1D (7.9.8.1.387)	RZ points defining the shape of the toroidal tile set [m]; Vector (npoints)
tiles_turn	integer (7.9.8.1.3)	Number of tiles used to get the full toroidal coverage; Scalar

Type of: solcurdiag_sol_current:setup (4532)

7.9.8.1.431 source_imp

Subtree containing source terms for the impurity species

member	type	description
exp	matflt_type (7.9.8.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Array2d (nrho,nzimp)
imp	matflt_type (7.9.8.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Array2d (nrho,nzimp)

Type of: coresource_values:qz (4256) I coresource_values:sz (4256)

7.9.8.1.432 source_ion

Subtree containing source terms for the various ion species

member	type	description
exp	matflt_type (7.9.8.1.15)	Explicit source term [same unit as root quantity]. Time-dependent. Matrix (nrho,nion)
imp	matflt_type (7.9.8.1.15)	Implicit source term [s^-1.m^-3]. Time-dependent. Matrix (nrho,nion)

Type of: coresource_values:qi (4256) I coresource_values:si (4256) I coresource_values:ui (4256)

7.9.8.1.433 source_rate

Source density of particles in phase space (real space, velocity space, spin state).

member	type	description
grid	complexgrid (7.9.8.1.110)	Grid for storing the source-rate. Time-dependent; Complexgrid
value	complexgrid_scalar (7.9.8.1.115)	The source-rate of particles in phase space; given on grid [(m/s)^-3 m^-3 s^-1]. Time-dependent; Complexgrid_scalar
discrete	vecint_type (7.9.8.1.19)	List of indexes for the dimensions (coordinates) of grid for which the source is discretely distributed. For example consider a source of 3.5 MeV alpha particles provided on a grid with two coordinates; rho_tor and energy. To specify that the source is given at energies exactly equal to 3.5 MeV, let discret have length 1 and set discrete=(1)=2 since energy is dimension number 2. The source is then proportional to delta(1 - energy / 3.5MeV), where delta is the Direct delta distribution. Discrete dimensions can only be used when the grid is rectangular. Time-dependent; Vector(n_discrete_dimensions)
parameters	parameters (7.9.8.1.339)	Parameters used to defined the grid coordiantes. Time-dependent

Type of: distsource_source:source_rate (4302)

7.9.8.1.434 source_vec

Subtree containing vector source term (radial dimension only)

member	type	description
exp	vecflt_type (7.9.8.1.18)	Explicit source term [same unit as root quantity]. Time-dependent. Vector (nrho)
imp	vecflt_type (7.9.8.1.18)	Implicit source term [s^-1.m^-3]. Time-dependent. Vector (nrho)

Type of: coresource_values:qe (4256) I coresource_values:se (4256) I coresource_values:ujxb (4256)

7.9.8.1.435 sourceel

Structure for the total source term for the transport equation (electrons). Time-dependent;

member	type	description
value	vecflt_type (7.9.8.1.18)	Value of the source term; Time-dependent; Vector (nrho)
integral	vecflt_type (7.9.8.1.18)	Integral from 0 to rho of the source term. Time-dependent; Vector (nrho)
source	string (7.9.8.1.4)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); String

Type of: corefield:source_term (4238) I profiles1d:qoh (4470)

7.9.8.1.436 sourceimp

Structure for the total source term for the transport equation (impurities). Time-dependent;

member	type	description
value	matflt_type (7.9.8.1.15)	Value of the source term [m^-3.s^-1]; Time-dependent; Array2D (nrho,nzimp)
integral	matflt_type (7.9.8.1.15)	Integral from 0 to rho of the source term. Time-dependent; Array2D(nrho,nzimp)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the impurity profiles : code, path to diagnostic signals, massaging, ...); Array of strings (nimp)

Type of: impurity_type:source_term (4369)

7.9.8.1.437 sourceion

Structure for the total source term for the transport equation (ions). Time-dependent;

member	type	description
value	matflt_type (7.9.8.1.15)	Value of the source term; Time-dependent; Matrix (nrho,nion)
integral	matflt_type (7.9.8.1.15)	Integral from 0 to rho of the source term. Time-dependent; Matrix (nrho,nion)
source	vecstring_type (7.9.8.1.20)	Source of the profile (any comment describing the origin of the profile : code, path to diagnostic signals, massaging, ...); Array of strings (nion)

Type of: corefieldion:source_term (4239)

7.9.8.1.438 species_desc

Description of a single ion species or bundled charge state.

member	type	description
label	string (7.9.8.1.4)	Name of species
amn	float (7.9.8.1.2)	Atomic mass number of the species
zn	float (7.9.8.1.2)	Nuclear charge of the impurity
zmin	float (7.9.8.1.2)	Minimum Z of species charge state bundle
zmax	float (7.9.8.1.2)	Maximum Z of species charge state bundle

Type of: edge:species (4144)

7.9.8.1.439 species_reference

Defines a reference to a single species in a CPO that includes a compositions structure.

member	type	description
type	identifier (7.9.8.1.263)	The type species: type.flag=1 for electron source; type.flag=2 for ion source taken from compositions/ions; type.flag=3 for impurity source taken from compositions/impur; 4=neutron source; 4=photon source etc (see species_reference_identifier_definition in the Documentation website under Conventions/Enumerated_datatypes).
index	integer (7.9.8.1.3)	Index of the species. This definition of index depends on the value of type; if the species is an ion (type.flag=1) or an impurity (type.flag=2) then the index refers to distribution/compositions/ions, or distribution/compositions/impur, respectively. This field has no meaning for other species, e.g. like electrons, neutrons or photons. The indexing follows the Fortran/Matlab convention where the first element in an array has index 1.

Type of: distri_vec:species (4297) I distsource_source:species (4302)

7.9.8.1.440 spectral

This structure accommodates the types needed on a spectral MSE diagnostic namely the emmissivity and the radiance spectra. It will be subsequenty upgraded with optical + photon detection elements since the structure will also be used for a synthetic spectral mse code.

member	type	description
emissivity	msediag_emissivity (7.9.8.1.305)	Emissivity characteristics.
radiance	msediag_radiance (7.9.8.1.308)	Emissivity characteristics.
codeparam	codeparam (7.9.8.1.105)	Code parameters

Type of: msediag:spectral (4157)

7.9.8.1.441 spectrum

Spectral properties of the wave.

member	type	description
phi_theta	launchs_phi_theta (7.9.8.1.275)	Power spectrum as a function of the refractive index in the toroidal and poloidal directions.
parallel	launchs_parallel (7.9.8.1.274)	Power spectrum as a function of the parallel refractive index.

Type of: launchs:spectrum (4153)

7.9.8.1.442 spot

Spot characteristics

member	type	description
size	vecflt_type (7.9.8.1.18)	Size of the spot ellipse [m], Vector (2). Time-dependent
angle	float (7.9.8.1.2)	Rotation angle for the spot ellipse [rd], Float. Time-dependent

Type of: rfbeam:spot (4488)

7.9.8.1.443 sputtering_neutrals

Sputtering coefficients

member	type	description
physical	vecflt_type (7.9.8.1.18)	Effective coefficient of physical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.
chemical	vecflt_type (7.9.8.1.18)	Effective coefficient of chemical sputtering of the neutral type INEUT. Vector(nneut). Time-dependent.

Type of: coefficients_neutrals:sputtering (4209)

7.9.8.1.444 straps

Properties of the IC antenna strap; Time-dependent; Vector(nstraps)

member	type	description
current	exp0D (7.9.8.1.224)	Root mean square current flowing along the strap [A]; Time-Dependent; Float
phase	exp0D (7.9.8.1.224)	Phase of strap current [rad]; Time-dependent; exp0D
phi_centre	float (7.9.8.1.2)	Toroidal angle at the centre of the strap [rad]; Float
width	float (7.9.8.1.2)	Width of strap in the toroidal direction [m]; Float
dist2wall	float (7.9.8.1.2)	Distance to conducting wall or other conducter behind the antenna straps [m]; Float
coord_strap	rz1D (7.9.8.1.387)	Coordinates (R,z) of polygon describing the antenna in the poloidal plane; rz1d vector (ncoord_strap)

Type of: antennaic_setup:straps (4183)

7.9.8.1.445 structure_cs

Detailed description of the coil structure, for coils that are part of the central solenoid.

member	type	description
gaptf	float (7.9.8.1.2)	gap between CS external radius and TF internal vault radius [m]; Scalar
ri	float (7.9.8.1.2)	CS internal radius [m]; Scalar
re	float (7.9.8.1.2)	CS external radius [m]; Scalar
jcable	float (7.9.8.1.2)	Maximum allowable CS Cable In Conduit current density [A/m^2]; Scalar
current_nom	float (7.9.8.1.2)	Nominal current in the CS conductor [A]; Scalar
sigma	float (7.9.8.1.2)	Maximum allowable stress in the CS [Pa]; Scalar

member	type	description
tiso	float (7.9.8.1.2)	Insulation thickness of CS conductor [m]; Scalar
nlay	float (7.9.8.1.2)	Number of conductor layers in the Central Solenoid; Scalar

Type of: desc_pfcoils:structure_cs (4269)

7.9.8.1.446 t_series_cplx

Time series

member	type	description
time_wind	vecflt_type (7.9.8.1.18)	Time trace [s]; Time-dependent; Vector (n)
values_re	vecflt_type (7.9.8.1.18)	Real part of data; Time-dependent; Vector (n)
values_im	vecflt_type (7.9.8.1.18)	Imaginary part of data; Time-dependent; Vector (n)

Type of: refl_receive:iq_receiver (4480)

7.9.8.1.447 t_series_real

Time series; Time-dependent

member	type	description
time_wind	vecflt_type (7.9.8.1.18)	Time trace [s]; Time-dependent; Vector (n)
values	vecflt_type (7.9.8.1.18)	Values of the sigal; Time-dependent; Vector (n)

Type of: refl_receive:io_signal (4480) I refl_receive:raw_signal (4480)

7.9.8.1.448 table

Stores the interpolation table (0d to 7d). Only one entry should be used.

member	type	description
filled	integer (7.9.8.1.3)	Identifier whether the tables have real data.
table_0d	float (7.9.8.1.2)	NO DOCS
table_1d	vecflt_type (7.9.8.1.18)	NO DOCS
table_2d	matflt_type (7.9.8.1.15)	NO DOCS
table_3d	array3dflt_type (7.9.8.1.7)	NO DOCS
table_4d	array4dflt_type (7.9.8.1.9)	NO DOCS
table_5d	array5dflt_type (7.9.8.1.10)	NO DOCS
table_6d	array6dflt_type (7.9.8.1.11)	NO DOCS
coord1_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 1
coord2_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 2
coord3_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 3
coord4_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 4
coord5_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 5
coord6_str	vecstring_type (7.9.8.1.20)	If needed, an array of strings describing coordinate 6
quality	identifier (7.9.8.1.263)	Characterize the data quality

Type of: tables:table (4552)

7.9.8.1.449 tables

Definition of a process

member	type	description
ndim	integer (7.9.8.1.3)	Table dimensionality of the process. Indicates which of the tables is filled.
coord_index	integer (7.9.8.1.3)	Index in tables_coord, specifying what coordinate specification to use for this table.
result_label	string (7.9.8.1.4)	Description of the process result (rate, cross section, sputtering yield, ...)
result_unit	string (7.9.8.1.4)	Unit of the process result
result_trans	integer (7.9.8.1.3)	Transformation of the process result. Integer flag: 0=no transformation; 1=10^; 2=exp()

member	type	description
zmin	vecint_type (7.9.8.1.19)	Minimum charge state [units of elementary charge]; if equal to zmax then no bundling; Vector(nchargestates)
zmax	vecint_type (7.9.8.1.19)	Maximum charge state [units of elementary charge]; if equal to zmin then no bundling; Vector(nchargestates)
state_label	vecstring_type (7.9.8.1.20)	Label for charge state (e.g. D0, D1+, ...); Vector(nchargestates)
table(:)	table (7.9.8.1.448)	Array of data tables, one entry per species. Vector(nchargestates)
data_source	string (7.9.8.1.4)	Filename or subroutine name used to provide this data.
data_provide	string (7.9.8.1.4)	ITM responsible person for this data.
data_citation	string (7.9.8.1.4)	Reference to publication(s).

Type of: amns:tables (4127)

7.9.8.1.450 tables_coord

Definition of coordinates for one specific coordinate system used in one or more tables.

member	type	description
coords(:)	coords (7.9.8.1.131)	Vector(ndim) of coordinates. ndim is number of parameters for a process.

Type of: amns:tables_coord (4127)

7.9.8.1.451 temporary_nt

set of non-timed temporary quantities

member	type	description
float0d(:)	temporary_nt_0dr (7.9.8.1.454)	Constant 0D float
integer0d(:)	temporary_nt_0di (7.9.8.1.453)	Constant 0D integer
complex0d(:)	temporary_nt_0dc (7.9.8.1.452)	Constant 0D complex
string0d(:)	temporary_nt_0ds (7.9.8.1.455)	Constant 0D string
float1d(:)	temporary_nt_1dr (7.9.8.1.458)	Constant 1D float
integer1d(:)	temporary_nt_1di (7.9.8.1.457)	Constant 1D integer
string1d(:)	temporary_nt_1dr (7.9.8.1.458)	Constant 1D string
complex1d(:)	temporary_nt_1dc (7.9.8.1.456)	Constant 1D complex
float2d(:)	temporary_nt_2dr (7.9.8.1.462)	Constant 2D float
integer2d(:)	temporary_nt_2di (7.9.8.1.461)	Constant 2D integer
complex2d(:)	temporary_nt_2dc (7.9.8.1.460)	Constant 2D complex
float3d(:)	temporary_nt_3dr (7.9.8.1.465)	Constant 3D float
integer3d(:)	temporary_nt_3di (7.9.8.1.464)	Constant 3D integer
complex3d(:)	temporary_nt_3dc (7.9.8.1.463)	Constant 3D complex
float4d(:)	temporary_nt_4dr (7.9.8.1.466)	Constant 4D float

Type of: temporary:non_timed (4171)

7.9.8.1.452 temporary_nt_0dc

a non-timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.

member	type	description
value	cplx_type (7.9.8.1.13)	Value. Complex scalar.

Type of: temporary_nt:complex0d (4554)

7.9.8.1.453 temporary_nt_0di

a non-timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	integer (7.9.8.1.3)	Value. integer scalar

Type of: temporary_nt:integer0d (4554)

7.9.8.1.454 temporary_nt_0dr

a non-timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	float (7.9.8.1.2)	Value. Real scalar.

Type of: temporary_nt:float0d (4554)

7.9.8.1.455 temporary_nt_0ds

a non-timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	string (7.9.8.1.4)	Value. String.

Type of: temporary_nt:string0d (4554)

7.9.8.1.456 temporary_nt_1dc

a non-timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	veccplx_type (7.9.8.1.17)	Value. Vector of complex numbers

Type of: temporary_nt:complex1d (4554)

7.9.8.1.457 temporary_nt_1di

a non-timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	vecint_type (7.9.8.1.19)	Value. Vector of integers

Type of: temporary_nt:integer1d (4554)

7.9.8.1.458 temporary_nt_1dr

a non-timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	vecflt_type (7.9.8.1.18)	Value. Vector of float.

Type of: temporary_nt:float1d (4554) I temporary_nt:string1d (4554)

7.9.8.1.459 temporary_nt_1ds

a non-timed temporary quantity of vecstring type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	vecstring_type (7.9.8.1.20)	Value. Vector of strings.

7.9.8.1.460 temporary_nt_2dc

a non-timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matcplx_type (7.9.8.1.14)	Value. Matrix of complex numbers

Type of: temporary_nt:complex2d (4554)

7.9.8.1.461 temporary_nt_2di

a non-timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matint_type (7.9.8.1.16)	Value. Matrix of integers

Type of: temporary_nt:integer2d (4554)

7.9.8.1.462 temporary_nt_2dr

a non-timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matflt_type (7.9.8.1.15)	Value. Matrix of float.

Type of: temporary_nt:float2d (4554)

7.9.8.1.463 temporary_nt_3dc

a non-timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dcplx_type (7.9.8.1.6)	Value. array 3D of complex numbers

Type of: temporary_nt:complex3d (4554)

7.9.8.1.464 temporary_nt_3di

a non-timed temporary quantity of array3dint type

member	type	description

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dint_type (7.9.8.1.8)	Value. array 3D of integers

Type of: temporary_nt:integer3d (4554)

7.9.8.1.465 temporary_nt_3dr

a non-timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dflt_type (7.9.8.1.7)	Value. array 3D of floats

Type of: temporary_nt:float3d (4554)

7.9.8.1.466 temporary_nt_4dr

a non-timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array4dflt_type (7.9.8.1.9)	Value. array 4D of floats

Type of: temporary_nt:float4d (4554)

7.9.8.1.467 temporary_t

set of timed temporary quantities

member	type	description
float0d(:)	temporary_t_0dr (7.9.8.1.470)	Time-dependent 0D float
integer0d(:)	temporary_t_0di (7.9.8.1.469)	Time-dependent 0D integer.
complex0d(:)	temporary_t_0dc (7.9.8.1.468)	Time-dependent 0D complex.
string0d(:)	temporary_t_0ds (7.9.8.1.471)	Time-dependent 0D string.
float1d(:)	temporary_t_1dr (7.9.8.1.474)	Time-dependent 1D float.
integer1d(:)	temporary_t_1di (7.9.8.1.473)	Time-dependent 1D integer.
complex1d(:)	temporary_t_1dc (7.9.8.1.472)	Time-dependent 1D complex
float2d(:)	temporary_t_2dr (7.9.8.1.477)	Time-dependent 2D float
integer2d(:)	temporary_t_2di (7.9.8.1.476)	Time-dependent 2D integer
complex2d(:)	temporary_t_2dc (7.9.8.1.475)	Time-dependent 2D complex
float3d(:)	temporary_t_3dr (7.9.8.1.480)	Time-dependent 3D float
integer3d(:)	temporary_t_3di (7.9.8.1.479)	Time-dependent 3D integer
complex3d(:)	temporary_t_3dc (7.9.8.1.478)	Time-dependent 3D complex
float4d(:)	temporary_t_4dr (7.9.8.1.481)	Time-dependent 4D float

Type of: temporary:timed (4171)

7.9.8.1.468 temporary_t_0dc

a timed temporary quantity of complex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	cplx_type (7.9.8.1.13)	Value. Time-dependent. Complex scalar.

Type of: temporary_t:complex0d (4570)

7.9.8.1.469 temporary_t_0di

a timed temporary quantity of integer type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	integer (7.9.8.1.3)	Value. Time-dependent. integer scalar

Type of: temporary_t:integer0d (4570)

7.9.8.1.470 temporary_t_0dr

a timed temporary quantity of real type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	float (7.9.8.1.2)	Value. Time-dependent. Real scalar.

Type of: temporary_t:float0d (4570)

7.9.8.1.471 temporary_t_0ds

a timed temporary quantity of string type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	string (7.9.8.1.4)	Value. Time-dependent. String.

Type of: temporary_t:string0d (4570)

7.9.8.1.472 temporary_t_1dc

a timed temporary quantity of veccomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	veccplx_type (7.9.8.1.17)	Value. Time-dependent. Vector of complex numbers

Type of: temporary_t:complex1d (4570)

7.9.8.1.473 temporary_t_1di

a timed temporary quantity of vecint type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	vecint_type (7.9.8.1.19)	Value. Time-dependent. Vector of integers

Type of: temporary_t:integer1d (4570)

7.9.8.1.474 temporary_t_1dr

a timed temporary quantity of vecflt type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	vecflt_type (7.9.8.1.18)	Value. Time-dependent. Vector of float.

Type of: temporary_t:float1d (4570)

7.9.8.1.475 temporary_t_2dc

a timed temporary quantity of matcomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matcplx_type (7.9.8.1.14)	Value. Time-dependent. Matrix of complex numbers

Type of: temporary_t:complex2d (4570)

7.9.8.1.476 temporary_t_2di

a timed temporary quantity of matint type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matint_type (7.9.8.1.16)	Value. Time-dependent. Matrix of integers

Type of: temporary_t:integer2d (4570)

7.9.8.1.477 temporary_t_2dr

a timed temporary quantity of matflt type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	matflt_type (7.9.8.1.15)	Value. Time-dependent. Matrix of float.

Type of: temporary_t:float2d (4570)

7.9.8.1.478 temporary_t_3dc

a timed temporary quantity of array3dcomplex type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dcplx_type (7.9.8.1.6)	Value. Time-dependent. array 3D of complex numbers

Type of: temporary_t:complex3d (4570)

7.9.8.1.479 temporary_t_3di

a timed temporary quantity of array3dint type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dint_type (7.9.8.1.8)	Value. Time-dependent. array 3D of integers

Type of: temporary_t:integer3d (4570)

7.9.8.1.480 temporary_t_3dr

a timed temporary quantity of array3dfloat type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array3dflt_type (7.9.8.1.7)	Value. Time-dependent. array 3D of floats

Type of: temporary_t:float3d (4570)

7.9.8.1.481 temporary_t_4dr

a timed temporary quantity of array4dfloat type

member	type	description
identifier	identifier (7.9.8.1.263)	Identifier.
value	array4dflt_type (7.9.8.1.9)	Value. Time-dependent. array 4D of floats

Type of: temporary_t:float4d (4570)

7.9.8.1.482 tf_desc_tfcoils

Description of the toroidal field coils

member	type	description
type	integer (7.9.8.1.3)	Type of coil, 0=circular coil, 1=plane coil with arbitrary shape.
phi	float (7.9.8.1.2)	Toroidal angle of centre of coil 1, assuming all coils are identical and evenly distributed around the torus [rad]. Scalar
circularcoil	circularcoil (7.9.8.1.103)	Circular coil description
planecoil	planecoil (7.9.8.1.358)	Plane coil description
inboard	tf_structure (7.9.8.1.484)	Description of TF inboard structure
outboard	tf_structure (7.9.8.1.484)	Description of TF outboard structure

Type of: toroidfield:desc_tfcoils (4173)

7.9.8.1.483 tf_desc_tfcoils_board

Description of TF inboard/outboard properties

member	type	description
structure	tf_structure (7.9.8.1.484)	TF coil structure

7.9.8.1.484 tf_structure

Inner TF coil structure

member	type	description
jcable	float (7.9.8.1.2)	CICS cable in current density [A/m]; Scalar
tisotf	float (7.9.8.1.2)	Insulation thickness of TF conductor [m]; Scalar
efcasing	float (7.9.8.1.2)	Thickness front casing [m]; Scalar
escasing	float (7.9.8.1.2)	Thickness side casing [m]; Scalar
sigjackettf	float (7.9.8.1.2)	Jacket stress limit [Pa]; Scalar
sigvaulttf	float (7.9.8.1.2)	Vault stress limit [Pa]; Scalar
ktf	float (7.9.8.1.2)	Amplification factor for magnetic field
ritf	float (7.9.8.1.2)	Internal TF coil radius [m]; Scalar
riitf	float (7.9.8.1.2)	Internal vault TF coil radius [m]; Scalar
retf	float (7.9.8.1.2)	External TF coil radius [m]; Scalar
he_fraction	float (7.9.8.1.2)	Helium fraction (percentage) in TF structure infront of winding package [-]; Scalar
ss_fraction	float (7.9.8.1.2)	Stainless steel 316 fraction (percentage) in TF structure infront of winding package [-]; Scalar
pow_dens_wp	float (7.9.8.1.2)	Peak energy depostion in winding pack [W.m^-3]; Scalar

Type of: tf_desc_tfcoils:inboard (4585) I tf_desc_tfcoils:outboard (4585) I tf_desc_tfcoils_board:structure (4586)

7.9.8.1.485 theta_info

Information on the poloidal angle theta.

member	type	description
angl_type	integer (7.9.8.1.3)	Type of poloidal angle: 1 : same as the poloidal angle in the equlibrium cpo; 2 : geometrical polar angle, tan(theta) = Z/(R-R_0); 3 : other. If option 3, a transformation to the geometrical poloidal angle is provided in th2th_pol.
th2th_pol	matflt_type (7.9.8.1.15)	Geometrical poloidal angle at grid points in theta, i.e. the transformation from theta to the polar poloidal angle; used only if angl_type=3; Time-dependent; Matrix (ndim1, ndim2)

Type of: waves_grid_2d:theta_info (4631)

7.9.8.1.486 topo_regions

List with distribution function in each topological region; Time-dependent. Structure array(nregion_topo)

member	type	description
ind_omnigen	integer (7.9.8.1.3)	Index of the omnigeuous magnetic surfaces (generalised equitorial plane) to which the s-coordinates refer. NOTE: only used for gridcoord=3.
dim1	array6dflt_type (7.9.8.1.11)	First dimension in phase space; Time-dependent; Array6d(ndim11, ndim21, ndim31, ndim41, ndim51, ndim61).
dim2	array6dflt_type (7.9.8.1.11)	Second dimension in phase space; Time-dependent; Array6d(ndim12, ndim22, ndim32, ndim42, ndim52, ndim62).
dim3	array6dflt_type (7.9.8.1.11)	Third dimension in phase space; Time-dependent; Array6d(ndim13, ndim23, ndim33, ndim43, ndim53, ndim63).
dim4	array6dflt_type (7.9.8.1.11)	Fourth dimension in phase space; Time-dependent; Array6d(ndim14, ndim24, ndim34, ndim44, ndim54, ndim64).
dim5	array6dflt_type (7.9.8.1.11)	Fifth dimension in phase space; Time-dependent; Array6d(ndim15, ndim25, ndim35, ndim45, ndim55, ndim65).
dim6	array6dflt_type (7.9.8.1.11)	Sixth dimension in phase space; Time-dependent; Array6d(ndim16, ndim26, ndim36, ndim46, ndim56, ndim66).
jacobian	array6dflt_type (7.9.8.1.11)	Jacobian of the transformation of the phase space grid variables; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).
distfunc	array6dflt_type (7.9.8.1.11)	Orbit (or bounce) averaged distribution function given on a grid [1/m^3 (m/s)^-3]; Time-dependent; Array6d(ndim11, ndim22, ndim33, ndim44, ndim55, ndim66).

7.9.8.1.487 toroid_field

Toroidal field information entering the definition of rho_tor, for reference only. The physical value of the toroidal field should be taken from the toroidfield CPO. Time-dependent.

member	type	description
b0	float (7.9.8.1.2)	Vacuum field at r0 [T]; Time-dependent. Scalar.
b0prime	float (7.9.8.1.2)	Time derivative of the vacuum field at r0 [T/s]; Time-dependent. Scalar.
r0	float (7.9.8.1.2)	Characteristic major radius of the device (used in publications, usually middle of the vessel at the equatorial midplane) [m]. Scalar.
time	float (7.9.8.1.2)	Time [s] (exact time slice used from the time array of the source signal, here the toroidfield CPO. If the time slice does not exist in the time array of the source signal, it means linear interpolation has been used); Time-dependent; Scalar.

Type of: coreprof:toroid_field (4137)

7.9.8.1.488 trace

Position of particle in 5D space (3D in real and 2D in velocity).

member	type	description
time_orb	matflt_type (7.9.8.1.15)	Time along the orbit [s]; Time-dependent; Matrix (norbits, max_ntorb)
ntorb	vecint_type (7.9.8.1.19)	Number of time slices along the orbit, for each orbit. Time-dependent; Vector (norbits)
r	matflt_type (7.9.8.1.15)	Major radius of the guiding centre [m], Major radius; Time-dependent; Matrix (norbits, max_ntorb).
z	matflt_type (7.9.8.1.15)	Altitude of the guiding centre [m]; Time-dependent; Matrix (norbits, max_ntorb).
phi	matflt_type (7.9.8.1.15)	Toroidal angle of the guiding centre [rad]; Time-dependent; Matrix (norbits, max_ntorb).

member	type	description
psi	matflt_type (7.9.8.1.15)	Guiding centre position in psi [normalised poloidal flux]; Time-dependent; Matrix (norbits, max_ntorb)).
theta_b	matflt_type (7.9.8.1.15)	Position of the guiding centre in poloidal Boozer angle [rad]; Time-dependent; Matrix (norbits, max_ntorb).
v_parallel	matflt_type (7.9.8.1.15)	Parallel velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).
v_perp	matflt_type (7.9.8.1.15)	Perpendicular velocity along the orbit [m/s]; Time-dependent; Matrix (norbits, max_ntorb).

Type of: orbit:trace (4161)

7.9.8.1.489 transcoefel

Subtree containing transport coefficients from a transport model, for the electrons

member	type	description
diff_eff	vecflt_type (7.9.8.1.18)	Effective diffusivity [m^2.s^-1]. Time-dependent. Vector (nrho)
vconv_eff	vecflt_type (7.9.8.1.18)	Effective convection [m.s^-1]. Time-dependent. Vector (nrho)
flux	vecflt_type (7.9.8.1.18)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Vector (nrho)
off_diagonal	offdiagel (7.9.8.1.329)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:te_transp (4260) I neoclassic:mtor_neo (4159) I neoclassic:ne_neo (4159) I neoclassic:te_neo (4159)

7.9.8.1.490 transcoefimp

Subtree containing transport coefficients from a transport model, for the various impurity species (multiple charge states)

member	type	description
diff_eff	matflt_type (7.9.8.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Array2d (nrho,nzimp)
vconv_eff	matflt_type (7.9.8.1.15)	Effective convection [m.s^-1]. Time-dependent. Array2d (nrho,nzimp)
exchange	matflt_type (7.9.8.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Array2d (nrho,nzimp)
flux	matflt_type (7.9.8.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Array2d (nrho,nzimp)
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix (off-diagonal subtree not available for impurities for the moment). Scalar.

Type of: coretransp_values:nz_transp (4260) I coretransp_values:tz_transp (4260) I neoclassic:nz_neo (4159) I neoclassic:tz_neo (4159)

7.9.8.1.491 transcoefion

Subtree containing transport coefficients from a transport model, for the various ion species, including the energy exchange term qgi.

member	type	description
diff_eff	matflt_type (7.9.8.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.8.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
exchange	matflt_type (7.9.8.1.15)	Ion to electron energy exchange [W.m^-3]. Time-dependent. Matrix(nrho,nion).
qgi	matflt_type (7.9.8.1.15)	Energy exchange term due to transport. [W.m^-3]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.8.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.8.1.330)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:ti_transp (4260) I neoclassic:ni_neo (4159) I neoclassic:ti_neo (4159)

7.9.8.1.492 transcoefvtor

Subtree containing transport coefficients from a transport model, for the various ion species

member	type	description
diff_eff	matflt_type (7.9.8.1.15)	Effective diffusivity [m^2.s^-1]. Time-dependent. Matrix (nrho,nion)
vconv_eff	matflt_type (7.9.8.1.15)	Effective convection [m.s^-1]. Time-dependent. Matrix (nrho,nion)
flux	matflt_type (7.9.8.1.15)	Flux. Not used in transport equations [field.m.s^-1,.m^-3 if field is not a density itself]. Time-dependent. Matrix (nrho,nion)
off_diagonal	offdiagion (7.9.8.1.330)	Details of the transport matrix, just for diagnostic (not used in transport equations). Time-dependent.
flag	integer (7.9.8.1.3)	Flag describing the form of transport produced by the original model : 0- not calculated, 1- D and V, 2- flux, 3- full transport matrix. Scalar.

Type of: coretransp_values:vtor_transp (4260)

7.9.8.1.493 trap_type

Definition of trap types. Array of structures (number of trap types)

member	type	description
trap_id	identifier (7.9.8.1.263)	Identifier for the trap type
compound	integer (7.9.8.1.3)	Index of the compound doing the trapping. Refers to (local) ../compounds.
gas_species	integer (7.9.8.1.3)	Index of the gas species being trapped. Refers to (local) ../gases.
energy	float (7.9.8.1.2)	Energy depth of the trap [eV]
fill_factor	matflt_type (7.9.8.1.15)	Discretized filling fraction of traps in this layer (0...1) [-]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid
density	matflt_type (7.9.8.1.15)	Discretized density of traps in this layer [1/m^3]. Dimensions: 1. index: cell index of depth discretization in this layer; 2. index: number of discretization elements in the subgrid

Type of: wall_unitsComplexType_layers:trap_type (4621)

7.9.8.1.494 trianglexyz

Triangular surface described by its three corners: point1, point2, and point3. The normal vector of this triangle is defined to be in the direction (point2-point1)x(point3-point1).

member	type	description
point1	xyz0D (7.9.8.1.537)	Point 1 on the triangle
point2	xyz0D (7.9.8.1.537)	Point 2 on the triangle
point3	xyz0D (7.9.8.1.537)	Point 3 on the triangle

Type of: nbi_nbi_unit_wall_surface:triangle (4416)

7.9.8.1.495 tsmeasure

Measured values (Thomson scattering)

member	type	description
te	exp1D (7.9.8.1.225)	Electron temperature [eV]. Vector (nchords)
ne	exp1D (7.9.8.1.225)	Electron density [m^-3]. Vector (nchords)

Type of: tsdiag:measure (4174)

7.9.8.1.496 tssetup

diagnostic setup information

member	type	description
position	rzphi1D (7.9.8.1.393)	Position of intersection between laser and line of sight; Vector (nchords)

Type of: tsdiag:setup (4174)

7.9.8.1.497 turbcomposition

Plasma composition (description of ion species).

member	type	description
amn	vecflt_type (7.9.8.1.18)	Atomic mass number (lumped ions are allowed); Vector (nion)
zn	vecflt_type (7.9.8.1.18)	Nuclear charge (lumped ions are allowed); Vector (nion)
zion	vecflt_type (7.9.8.1.18)	Ion charge (of the dominant ionisation state; lumped ions are allowed); Vector (nion)
ie_mass	vecflt_type (7.9.8.1.18)	Ion to electron mass ratio as used in the code for each species. To be used only by models which keep electron inertia. Vector (nion)

Type of: turbulence:composition (4175)

7.9.8.1.498 turbcoordsys

Decription of the coordinates and metric.

member	type	description
grid_type	string (7.9.8.1.4)	Type of coordinate system.
turbgrid	turbgrid (7.9.8.1.500)	Turbulence grid used by the codes; Time-dependent.
jacobian	matflt_type (7.9.8.1.15)	Jacobian of the coordinate system; Time-dependent; Matrix (ndim1, ndim2).
g_11	matflt_type (7.9.8.1.15)	metric coefficients g_11; Time-dependent; Matrix (ndim1, ndim2).
g_12	matflt_type (7.9.8.1.15)	metric coefficients g_12; Time-dependent; Matrix (ndim1, ndim2).
g_13	matflt_type (7.9.8.1.15)	metric coefficients g_13; Time-dependent; Matrix (ndim1, ndim2).
g_22	matflt_type (7.9.8.1.15)	metric coefficients g_22; Time-dependent; Matrix (ndim1, ndim2).
g_23	matflt_type (7.9.8.1.15)	metric coefficients g_23; Time-dependent; Matrix (ndim1, ndim2).
g_33	matflt_type (7.9.8.1.15)	metric coefficients g_33; Time-dependent; Matrix (ndim1, ndim2).
position	rzphi3D (7.9.8.1.397)	R Z phi positions of grid points; Time-dependent; Array3D (ndim1, ndim2, ndim3).

Type of: turbulence:coordsys (4175)

7.9.8.1.499 turbenv1d

Parallel fluctuation envelope.

member	type	description
theta	vecflt_type (7.9.8.1.18)	Straight field line poloidal angle [rad]; Vector (ntheta_env).
phi	vecflt_type (7.9.8.1.18)	Electrostatic potential [V^2]; Time-dependent; Vector (ntheta_env).
vor	vecflt_type (7.9.8.1.18)	Vorticity [coulomb^2/m^6]; Time-dependent; Vector (ntheta_env).
jpl	vecflt_type (7.9.8.1.18)	Parallel current [A^2/m^4]; Time-dependent; Vector (ntheta_env).
ne	vecflt_type (7.9.8.1.18)	Electron density [m^-6]; Time-dependent; Vector (ntheta_env).
he	vecflt_type (7.9.8.1.18)	Nonadiabatic electron density [m^-6]; Time-dependent; Vector (ntheta_env).
te	vecflt_type (7.9.8.1.18)	Electron temperature [eV^2]; Time-dependent; Vector (ntheta_env).
ni	matflt_type (7.9.8.1.15)	Ion density [m^-6]; Time-dependent; Matrix(ntheta_env,nion).
ti	matflt_type (7.9.8.1.15)	Ion temperature [eV^2]; Time-dependent; Matrix(ntheta_env,nion).
ui	matflt_type (7.9.8.1.15)	Ion parallel velocity [m^2/s^2]; Time-dependent; Matrix (ntheta_env,nion).
fe	vecflt_type (7.9.8.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ntheta_env).
qe	vecflt_type (7.9.8.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
qi	matflt_type (7.9.8.1.15)	Ion conductive heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).
me	vecflt_type (7.9.8.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Vector (ntheta_env).
mi	matflt_type (7.9.8.1.15)	Magnetic ion heat flux [W. m^-2 per mode]; Time-dependent; Matrix(ntheta_env,nion).

Type of: turbulence:env1d (4175)

7.9.8.1.500 turbgrid

Generic structure for a turbulence grid.

member	type	description
dim1	vecflt_type (7.9.8.1.18)	First dimension values; Vector (ndim1).
dim2	vecflt_type (7.9.8.1.18)	Second dimension values; Vector (ndim2).
dim3	vecflt_type (7.9.8.1.18)	Third dimension values; Vector (ndim3).

member	type	description
dim_v1	vecflt_type (7.9.8.1.18)	First v-space dimension values; Vector (ndim_v1).
dim_v2	vecflt_type (7.9.8.1.18)	Second v-space dimension values; Vector (ndim_v2).

Type of: turbcoordsys:turbgrid (4601)

7.9.8.1.501 turbspec1d

Perpendicular wavenumber spectra.

member	type	description
kperp	vecflt_type (7.9.8.1.18)	Perpendicular wavenumber [m^-1]; Vector (ndim_spec).
phi	vecflt_type (7.9.8.1.18)	Electrostatic potential [V^2 per mode]; Time-dependent; Vector (ndim_spec).
vor	vecflt_type (7.9.8.1.18)	Vorticity [s^-2 per mode]; Time-dependent; Vector (ndim_spec).
b	vecflt_type (7.9.8.1.18)	Magnetic energy [T^2 per mode]; Time-dependent; Vector (ndim_spec).
jpl	vecflt_type (7.9.8.1.18)	Current [A^2/m^4 per mode]; Time-dependent; Vector (ndim_spec).
ne	vecflt_type (7.9.8.1.18)	Electron density [m^-6 per mode]; Time-dependent; Vector (ndim_spec).
te	vecflt_type (7.9.8.1.18)	Electron temperature [eV^2 per mode]; Time-dependent; Vector (ndim_spec).
ti	matflt_type (7.9.8.1.15)	Ion temperature [eV^2 per mode]; Time-dependent; Matrix (ndim_spec,nion).
fe	vecflt_type (7.9.8.1.18)	Electron particle flux [m^-2/s per mode]; Time-dependent; Vector (ndim_spec).
qe	vecflt_type (7.9.8.1.18)	Electron conductive heat flux [W.m^-2 per mode]; Time-dependent; Vector (ndim_spec).
qi	matflt_type (7.9.8.1.15)	Ion conductive heat flux [W.m^-2 per mode]; Time-dependent; Matrix(ndim_spec,nion).
me	vecflt_type (7.9.8.1.18)	Magnetic electron heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec).
mi	matflt_type (7.9.8.1.15)	Magnetic ion heat flux [W.m^-2 per mode]; Time-dependent; Matrix (ndim_spec,nion).

Type of: turbulence:spec1d (4175)

7.9.8.1.502 turbvar0d

Time traces.

member	type	description
dtime_type	string (7.9.8.1.4)	Description of time trace e.g. last ndtime points.
dtime	vecflt_type (7.9.8.1.18)	Fast diagnostic time [s]; Time-dependent; Vector (ndtime).
en_exb	vecflt_type (7.9.8.1.18)	ExB energy [J/m^3]; Time-dependent; Vector (ndtime).
en_mag	vecflt_type (7.9.8.1.18)	Magnetic energy [J/m^3]; Time-dependent; Vector (ndtime).
en_el_th	vecflt_type (7.9.8.1.18)	electron thermal energy or free energy [J/m^3]; Time-dependent.
en_ion_th	matflt_type (7.9.8.1.15)	Ion thermal energy or free energy [J/m^3]; Time-dependent; Matrix (ndtime, nion).
en_el_par	vecflt_type (7.9.8.1.18)	Electron parallel energy [J/m^3]; Time-dependent; Vector (ndtime).
en_ion_par	matflt_type (7.9.8.1.15)	Ion parallel energy [J/m^3]; Time-dependent; Matrix (ndtime,nion).
en_tot	vecflt_type (7.9.8.1.18)	Total energy or free energy [J/m^3]; Time-dependent; Vector (ndtime).
fl_el	vecflt_type (7.9.8.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_heatel	vecflt_type (7.9.8.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_ion	matflt_type (7.9.8.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
fl_heation	matflt_type (7.9.8.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).
fl_magel	vecflt_type (7.9.8.1.18)	Electron flux [m^-2 s^-1]; Time-dependent; Vector (ndtime).
fl_magheatel	vecflt_type (7.9.8.1.18)	Conductive electron heat flux [W.m^-2]; Time-dependent; Vector (ndtime).
fl_magion	matflt_type (7.9.8.1.15)	Ion flux [m^-2 s^-1]; Time-dependent; Matrix (ndtime, nion).
flmagheation	matflt_type (7.9.8.1.15)	Conductive ion heat flux [W.m^-2]; Time-dependent; Matrix (ndtime, nion).

Type of: turbulence:var0d (4175)

7.9.8.1.503 turbvar1d

Dependent variable zonal average radial profile.

member	type	description
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate. Vector(nrho1d)
phi	vecflt_type (7.9.8.1.18)	Electrostatic potential [V]; Time-dependent; Vector (nrho1d).
er	vecflt_type (7.9.8.1.18)	Radial electric field [V/m]; Time-dependent; Vector (nrho1d).
vor	vecflt_type (7.9.8.1.18)	Vorticity [s^-1]; Time-dependent; Vector (nrho1d).

member	type	description
apl	vecflt_type (7.9.8.1.18)	Parallel magnetic potential divided by B [m]; Time-dependent; Vector (nrho1d).
jpl	vecflt_type (7.9.8.1.18)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Vector (nrho1d).
ne	vecflt_type (7.9.8.1.18)	Electron density [m^-3]; Time-dependent; Vector (nrho1d).
te	vecflt_type (7.9.8.1.18)	Electron temperature [eV]; Time-dependent; Vector (nrho1d).
ni	matflt_type (7.9.8.1.15)	Ion density [m^-3]; Time-dependent; Matrix (nrho1d,nion).
ti	matflt_type (7.9.8.1.15)	Ion temperature [eV]; Time-dependent; Matrix (nrho1d,nion).
ui	matflt_type (7.9.8.1.15)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Matrix (nrho1d,nion).

Type of: turbulence:var1d (4175)

7.9.8.1.504 turbvar2d

Dependent variable axisymmetric component.

member	type	description
rho_tor_norm	vecflt_type (7.9.8.1.18)	Normalised toroidal flux coordinate. Vector(nrho2d)
theta	vecflt_type (7.9.8.1.18)	Straight field line poloidal angle angle [rad]. Vector(ntheta2d)
phi	matflt_type (7.9.8.1.15)	Electrostatic potential [V]; Time-dependent; Matrix (nrho2d,ntheta2d).
apl	matflt_type (7.9.8.1.15)	Parallel magnetic potential divided by B [m]; Time-dependent; Matrix(nrho2d,ntheta2d).
jpl	matflt_type (7.9.8.1.15)	Parallel current divided by B [A/m^2 per T]; Time-dependent; Matrix (nrho2d,ntheta2d).
vor	matflt_type (7.9.8.1.15)	Vorticity [s^-1]; Time-dependent; Matrix(nrho2d,ntheta2d).
ne	matflt_type (7.9.8.1.15)	Electron density [m^-3]; Time-dependent; Matrix (nrho2d,ntheta2d).
te	matflt_type (7.9.8.1.15)	Electron temperature [eV]; Time-dependent; Matrix (nrho2d,ntheta2d).
ni	array3dflt_type (7.9.8.1.7)	Ion density [m^-3]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ti	array3dflt_type (7.9.8.1.7)	Ion temperature [eV]; Time-dependent; Array3D (nrho2d,ntheta2d,nion).
ui	array3dflt_type (7.9.8.1.7)	Ion parallel velocity divided by B [m/s per T]; Time-dependent; Array3D(nrho2d,ntheta2d,nion).

Type of: turbulence:var2d (4175)

7.9.8.1.505 turbvar3d

Dependent variable morphology (on the internal grid code coord_sys/turbgrid).

member	type	description
phi	array3dflt_type (7.9.8.1.7)	Electrostatic potential [V]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
vor	array3dflt_type (7.9.8.1.7)	Vorticity [s^-1]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
jpl	array3dflt_type (7.9.8.1.7)	Parallel current [A/m^2]; Time-dependent; Array3D(ndim1,ndim2,ndim3).
ne	array3dflt_type (7.9.8.1.7)	Electron density [m^-3]; Time-dependent; Array3D(ndim1,ndim2,ndim3).

Type of: turbulence:var3d (4175)

7.9.8.1.506 turbvar4d

Gyrokinetic distribution function, axisymmetric component. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array4dflt_type (7.9.8.1.9)	Electron distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array4D(ndim1,ndim2,ndim3,ndim_v1).
fi	array5dflt_type (7.9.8.1.10)	Ion distribution function times V-space volume element, axisymmetric component [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,nion).

Type of: turbulence:var4d (4175)

7.9.8.1.507 turbvar5d

Gyrokinetic distribution function. Grid is defined in coord_sys/turbgrid.

member	type	description
fe	array5dflt_type (7.9.8.1.10)	Electron distribution function times V-space volume element [m^-3]; Time-dependent; Array5D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2).

member	type	description
fi	array6dflt_type (7.9.8.1.11)	Ion distribution function times V-space volume element [m^-3]; Time-dependent; Array6D(ndim1,ndim2,ndim3,ndim_v1,ndim_v2,nion).

Type of: turbulence:var5d (4175)

7.9.8.1.508 version_ind

Array of available releases/versions of the AMNS data; each element contains information about the AMNS data that is included in the release. This part of the CPO is filled and stored only into shot/run=0/1, playing the role of a catalogue.

member	type	description
description	vecstring_type (7.9.8.1.20)	Description of each version.
releasedate	string (7.9.8.1.4)	Release date
data_release(:)	data_release (7.9.8.1.161)	For this release, an array over each data item (i.e. shot/run pair containing the actual data) included in this release

Type of: amns:version_ind (4127)

7.9.8.1.509 wall2d

A 2D wall type; Structure array. Replicate this element for each type of possible physics configurations necessary (gas tight vs wall with ports and holes)

member	type	description
wall_id	identifier (7.9.8.1.263)	Use this identifier to tag the type of 2d wall you are using. Use 0 for equilibrium codes (single closed limiter and vessel); 1 for gas-tight walls (disjoint PFCs with inner vessel as last limiter_unit; no vessel structure); 2 for free boundary codes (disjoint PFCs and vessel)
limiter	wall_limiter (7.9.8.1.514)	Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type). Time-dependent
vessel	wall_vessel (7.9.8.1.519)	Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)
plasma(:)	plasmaComplexType (7.9.8.1.359)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.8.1.517)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the limiter unit with index i in wall/wall2d/limiter/limiter_unit. Time-dependent

Type of: wall:wall2d (4176)

7.9.8.1.510 wall2d_mhd

Simplified wall that encloses necessary information for RWM codes.

member	type	description
res_wall(:)	mhd_res_wall2d (7.9.8.1.294)	Resistive Wall(s).
ideal_wall	mhd_ideal_wall2d (7.9.8.1.291)	Ideal wall

Type of: wall:wall2d_mhd (4176)

7.9.8.1.511 wall3d

3D wall descriptions; Array of structures (number of wall descriptions). Replicate this element for each type of possible physics or engineering configurations necessary (gas tight vs wall with ports and holes, coarse vs fine representation, ...). Time-dependent

member	type	description

member	type	description
wall_id	identifier (7.9.8.1.263)	Identify the type of wall - 0 for gas tight and 1 for a wall with holes/open ports
grid	complexgrid (7.9.8.1.110)	Grid description
plasma(:)	plasmaComplexType (7.9.8.1.359)	Description of incoming plasma for every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
wall_state(:)	wall_unitsComplexType (7.9.8.1.517)	Dynamic wall state of every wall component. Array of structures (number of wall components). The geometry of the wall component with index i is given by the corresponding subgrid with index i in wall/wall3d/grid. Time-dependent
basis_index	integer (7.9.8.1.3)	Index of basis vectors in wall/wall3d/grid/basis used to define vector quantities e.g. in plasma.

Type of: wall:wall3d (4176)

7.9.8.1.512 wall_blocks

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
blocks_unit(:)	wall_blocks_unit (7.9.8.1.513)	Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

Type of: wall_vessel_unit:blocks (4624)

7.9.8.1.513 wall_blocks_unit

Vector of blocks that build of the vessel layer. Replicate this element nblocks times. Each unit contains a building block of the vessel and can have dedicated number of points. Array of structures (nblocks)

member	type	description
name	string (7.9.8.1.4)	Name or description of the blocks_unit
position	rz1D (7.9.8.1.387)	Position (R,Z coordinates) of a vessel segment. No need to repeat first point for closed contours [m]; Vector(npoints)
eta	float (7.9.8.1.2)	Resistivity of the vessel segment [ohm.m]; Scalar
permeability	float (7.9.8.1.2)	Vessel relative permeability; Scalar
j_phi	float (7.9.8.1.2)	induced currents inside the vessel; time dependent; [A]
resistance	float (7.9.8.1.2)	resistance of block; [Ohm]

Type of: wall_blocks:blocks_unit (4615)

7.9.8.1.514 wall_limiter

Description of the immobile limiting surface(s) or plasma facing components for defining the Last Closed Flux Surface. Two representations are admitted : single contour or disjoint PFC. The limiter_id identifies the type of limiter set and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nlimiter_type)

member	type	description
limiter_id	identifier (7.9.8.1.263)	Use this identifier to tag the type of limiter you are using. Use flag=0 for the official single contour limiter and 1 for the official disjoint PFC structure like first wall. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2
limiter_unit(:)	limiter_unit (7.9.8.1.280)	Array of ncomponents limiting surfaces making up the limiter type (single contour or disjoint PFC). Replicate this limiter_unit element ncomponents times. Each unit contains a plasma facing component that can have dedicated number of points. Array of structures (ncomponents). Time-dependent

Type of: wall2d:limiter (4612)

7.9.8.1.515 wall_types

Reference wall type

member	type	description
label	string (7.9.8.1.4)	Label for this reference wall type
layers(:)	wall_types_layers (7.9.8.1.516)	Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

Type of: wall:wall_types (4176)

7.9.8.1.516 wall_types_layers

Engineering layers composing the wall element; array of structures (number of engineering layers). First layer is facing the plasma, increasing index means moving away from the plasma facing surface

member	type	description
thickness	float (7.9.8.1.2)	Thickness of layer [m]
chem_comp	vecflt_type (7.9.8.1.18)	Chemical composition of the layer in terms of the chemical compounds defined in wall/design_comp/compounds. Vector of fractional concentrations.

Type of: wall_types:layers (4618)

7.9.8.1.517 wall_unitsComplexType

Data for individual wall elements; Time-dependent

member	type	description
wall_type	integer (7.9.8.1.3)	Definition of reference wall composition for every subgrid of the wall discretization. Vector of integers (number of subgrids). The indices point to wall/wall_types.
n_depo_layer	integer (7.9.8.1.3)	Number of deposited layers (in addition to the engineering layers)
layers(:)	wall_unitsComplexType_layers (7.9.8.1.518)	Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent
eta	complexgrid_scalar (7.9.8.1.115)	Resitivity of wall element described by grid geometry [Ohm.m]
permeability	complexgrid_scalar (7.9.8.1.115)	Relative permeability of wall element described by grid geometry [-]
j	complexgrid_vector (7.9.8.1.121)	Current density vector in the element specified by the grid representation. [A/m^2]

Type of: wall2d:wall_state (4612) I wall3d:wall_state (4614)

7.9.8.1.518 wall_unitsComplexType_layers

Data on wall element layers; Array of structures (number of engineering layers + number of deposited layers); Layers can possibly be void (e.g. completely eroded), which is indicated by zero thickness. Time-dependent

member	type	description
elements	vecint_type (7.9.8.1.19)	List of elements present in the solid phase in this layer. Vector (number of elements). Holds indices pointing to wall/elements
gases	vecint_type (7.9.8.1.19)	List of gases present in this layer. Vector (number of gases). Holds indices pointing to wall/elements
compounds	vecint_type (7.9.8.1.19)	List of compounds present in the solid phase in this layer. Vector (number of compounds). Holds indices pointing to wall/compounds
density	matflt_type (7.9.8.1.15)	Discretized density distribution in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
dx	matflt_type (7.9.8.1.15)	Size of the vertical cells in the layer of the discrete wall elements in the subgrid [kg/m^3]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
thickness	vecflt_type (7.9.8.1.18)	Total size of the layer [m] (i.e. sum of dx over the number of vertical cells in the layer); Time-dependent; Vector (number of discretization elements in the subgrid)
roughness	array3dflt_type (7.9.8.1.7)	Interface roughness description between the discrete elements and their top neighbour (i.e. towards the plasma); Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of roughness parameter); Roughness parameter 1: RMS height [m], parameter 2: wavelength along projection of B on the surface [m], parameter 3: wavelength perpendicular to projection of B on the surface [m]. If only two parameters are given the parameters are assumed to be isotropic

member	type	description
porosity	array3dflt_type (7.9.8.1.7)	Discrete description of porosity of the layer. Time-dependent; Float 3d array (number of vertical cells in layer, number of discretization elements in the subgrid, index of porosity parameter); Porosity parameter 1: Volume fraction occupied by the pores [-], parameter 2: average size of the pores [m]
dpa	matflt_type (7.9.8.1.15)	Discretized number of displacements per atom in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
temperature	matflt_type (7.9.8.1.15)	Discretized temperature distribution in the layer of the discrete wall elements in the subgrid [eV]; Time-dependent; Float matrix (number of vertical cells in layer, number of discretization elements in the subgrid)
element_frac	array3dflt_type (7.9.8.1.7)	Fractional abundance of elements in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical elements as given in (local) elements, number of vertical cells in layer, number of discretization elements in the subgrid)
chem_comp	array3dflt_type (7.9.8.1.7)	Fractional abundance of chemical compounds in the layer of the discrete wall elements in the subgrid [-]; Time-dependent; Float matrix (number of chemical compounds as given in (local) compounds, number of vertical cells in layer, number of discretization elements in the subgrid)
bulk_D	array4dflt_type (7.9.8.1.9)	Diffusivity of gas species in bulks of different compounds [m^2/s]; Time-dependent; 4d float array. Dimensions: 1. index of compound (indexing as in (local) compounds), 2. index of gas element (indexing as in (local) gases), 3. cell index of 1d layer height discretization, 4. number of discretization elements in the subgrid
surface_D	array4dflt_type (7.9.8.1.9)	Diffusivity of hydrogen species of surface of different compounds [m^2/s]; Time-dependent; Dimensions: see bulk_D
bulk_solute	array4dflt_type (7.9.8.1.9)	Bulk mobile (solute) concentration [atoms/m^3]; Time-dependent; Dimensions: see bulk_D
surf_solute	array4dflt_type (7.9.8.1.9)	Surface mobile (solute) concentration [atoms/m^2]; Time-dependent; Dimensions: see bulk_D
pore_content	array3dflt_type (7.9.8.1.7)	Amount of gas species trapped in pores per cubic meter [1/m^3]; Time-dependent; 3d float array. Dimensions: 1. index of gas element (indexing as in (local) gases), 2. cell index of 1d layer height discretization, 3. number of discretization element in the subgrid
trap_type(:)	trap_type (7.9.8.1.493)	Definition of trap types. Array of structures (number of trap types)

Type of: wall_unitsComplexType:layers (4620)

7.9.8.1.519 wall_vessel

Mechanical structure of the vacuum vessel. Vessel assumed as set of nested layers with given physics properties; Two representations are admitted for each vessel unit : annular (two contours) or blocks. The vessel_id identifies the type of vessel_unit set one is using and code-specific representations derived from the official ones are also allowed if documented. Array of structures (nvessel_type)

member	type	description
vessel_id	identifier (7.9.8.1.263)	Use this identifier to tag the type of vessel you are using. Use flag=0 for the official single/multiple annular vessel and 1 for the official block element representation for each vessel unit. Additional representations needed on a code-by-code basis follow same incremental pair tagging starting on flag=2
vessel_unit(:)	wall_vessel_unit (7.9.8.1.521)	Array of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

Type of: wall2d:vessel (4612)

7.9.8.1.520 wall_vessel_annular

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
name	string (7.9.8.1.4)	Name or description of the vessel_unit
inside	rz1D (7.9.8.1.387)	Inner Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_inner)
outside	rz1D (7.9.8.1.387)	Outer Vessel wall outline (list of R,Z co-ordinates) [m]; Vector (npoints_outer)
eta	float (7.9.8.1.2)	Vessel resistivity [ohm.m]; Scalar
permeability	float (7.9.8.1.2)	Vessel relative permeability; Scalar

Type of: wall_vessel_unit:annular (4624)

7.9.8.1.521 wall_vessel_unit

Vector of vacuum vessel units. Replicate this vessel_unit element ncomponents times. Each unit contains a mechanical structure of the vessel with distinct physics properties. Array of structures (ncomponents)

member	type	description
annular	wall_vessel_annular (7.9.8.1.520)	Annular representation of a vessel layer by two free-hand contours.
blocks	wall_blocks (7.9.8.1.512)	Block element representation of vessel units. Each vessel unit is decomposed in elementary small units (blocks) caracyerized by a position, resistivity and relative permeability.
radial_build	wall_wall2d_vessel_radial_build (7.9.8.1.524)	Simple description of this vessel unit for the radial_build in system codes

Type of: wall_vessel:vessel_unit (4622)

7.9.8.1.522 wall_wall0d

Simple 0D description of plasma-wall interaction

member	type	description
pumping_speed	vecflt_type (7.9.8.1.18)	pumping speed; Time-dependent. vector(nneut); [particles/s]
gas_puff	vecflt_type (7.9.8.1.18)	gas puff; vector(nneut); Time-dependent. [particles/s]
wall_inventory	vecflt_type (7.9.8.1.18)	wall inventory; vector(nneut); Time-dependent. [particles]
recycling_coefficient	vecflt_type (7.9.8.1.18)	Recycling coefficient. Vector(nneut) Time-dependent.
wall_temperature	float (7.9.8.1.2)	Wall temperature [K]. Time-dependent. Scalar
power_from_plasma	float (7.9.8.1.2)	Power flowing from the plasma to the wall [W]. Time-dependent. Scalar
power_to_cooling	float (7.9.8.1.2)	Power to cooling systems [W]. Time-dependent. Scalar
plasma	wall_wall0d_plasma (7.9.8.1.523)	NO DOCS

Type of: wall:wall0d (4176)

7.9.8.1.523 wall_wall0d_plasma

member	type	description
species_index	matint_type (7.9.8.1.16)	Index of species into wall/compositions; matrix(nspecies,3); 1st element indicates {1: main ions; 2:impurities; 3:neutrals; 4:edge species); 2nd element indicates index into that array; 3rd index indicates charge state if 1st element points to inpurities or neutral type if 1st element points to neutrals;
flux	vecflt_type (7.9.8.1.18)	flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [particles/s]
energy	vecflt_type (7.9.8.1.18)	energy flux of species indicated by species_index; array of nspecies; positive implies incoming onto wall; negative implies sent back into plasma; time-dependent; [W]

Type of: wall_wall0d:plasma (4625)

7.9.8.1.524 wall_wall2d_vessel_radial_build

Simple description of this vessel unit for the radial_build in system codes

member	type	description
r1_inb	float (7.9.8.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r2_inb	float (7.9.8.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (inboard side) [m]; Scalar
r1_outb	float (7.9.8.1.2)	Inner radius (nearest to the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
r2_outb	float (7.9.8.1.2)	Outer radius (farest from the plasma), in the global tokamak coordinate system of the vv measured at the equatorial plane (outboard side) [m]; Scalar
raddim	float (7.9.8.1.2)	Radial thickness of the vacuum vessel; Scalar
nmat	float (7.9.8.1.2)	Number of materials; Scalar
composition	vecflt_type (7.9.8.1.18)	Inboard shield radial build giving the percentage of each material respectively (Meaning of the material index 1: Eurofer, 2: Pb-15.7Li, 3: He, 4: Water, 5: Tungsten Carbide, 6: Boron, 7: Tungsten, 8: Stainless Steel 316) in %vol; Vector
pow_dens_inb	float (7.9.8.1.2)	Peak energy depostion in vaccum vessel inboard [W.m^-3]; Scalar

member	type	description
pow_dens_outb	float (7.9.8.1.2)	Peak energy depostion in vaccum vessel outboard [W.m^-3]; Scalar
fn_flux_inb	float (7.9.8.1.2)	Fast neutron flux in vaccum vessel inboard [m^2.s^-1]; Scalar
fn_flux_outb	float (7.9.8.1.2)	Fast neutron flux in vaccum vessel outboard [m^2.s^-1]; Scalar

Type of: wall_vessel_unit:radial_build (4624)

7.9.8.1.525 waveguides

Waveguides description

member	type	description
nwm_theta	integer (7.9.8.1.3)	Number of waveguides per module in the poloidal direction.
nwm_phi	integer (7.9.8.1.3)	Number of waveguides per module in the toroidal direction.
mask	vecint_type (7.9.8.1.19)	Mask of passive and active waveguides for an internal module; Vector of integers (nwm_phi)
npwbm_phi	integer (7.9.8.1.3)	Number of passive waveguide between modules in the toroidal direction
npwe_phi	integer (7.9.8.1.3)	Number of passive waveguides on each antenna edge in the toroidal direction
sw_theta	float (7.9.8.1.2)	Spacing between poloidally neighboring waveguides [m]
hw_theta	float (7.9.8.1.2)	Height of waveguides in the poloidal direction [m]
bwa	float (7.9.8.1.2)	Width of active waveguides [m]; Float
biwp	float (7.9.8.1.2)	Width of internal passive waveguides [m]; Float
bewp	float (7.9.8.1.2)	Width of edge passive waveguides [m]; Float
e_phi	vecflt_type (7.9.8.1.18)	Thickness between waveguides in the toroidal direction [m], Vector (nthick_phi). Reminder : nthick_phi = nmp_phi*nwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi
scl	vecflt_type (7.9.8.1.18)	Short circuit length for passive waveguides [m], Vector (nshort_phi). Reminder : nshort _phi = nmp_phi* npwm_phi + (nmp_phi - 1)*npwbm_phi + 2*npwe_phi

Type of: modules:waveguides (4406)

7.9.8.1.526 waves_global_param

Global wave deposition parameters

member	type	description
name	string (7.9.8.1.4)	Antenna name, String
type	string (7.9.8.1.4)	Wave type (LH, EC, IC, ...), String
f_assumption	vecint_type (7.9.8.1.19)	Assumption on the functions distribution used by the wave solver to calculate the power deposition : 0 = Maxwellian (linear absorption); 1 = quasi-linear (F given by a distribution function CPO). Integer vector (nion+1). The first value corresponds to the electrons, then to the other ion species. Time-dependent.
code_type	integer (7.9.8.1.3)	Type of wave deposition code for a given frequency: 1=beam/ray tracing; 2=full wave; Integer
frequency	float (7.9.8.1.2)	Wave frequency [Hz]; Time-dependent, floating
ntor	vecint_type (7.9.8.1.19)	Toroidal mode numbers; Time-dependent; Vector (ntor)
power_tot	float (7.9.8.1.2)	Total absorbed wave power [W]; Time-dependent
p_frac_ntor	vecflt_type (7.9.8.1.18)	Fraction of wave power per toroidal mode number; Time-dependent; Vector (ntor)
pow_e	float (7.9.8.1.2)	Wave power absorbed by the thermal electrons [W]; Time-dependent; Float
pow_i	vecflt_type (7.9.8.1.18)	Wave power absorbed by the thermal ion species [W]; Time-dependent; Vector (nion)
pow_z	matflt_type (7.9.8.1.15)	Wave power absorbed by the thermal impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_fe	float (7.9.8.1.2)	Wave power absorbed by the fast electrons [W]; Time-dependent; Float
pow_fi	vecflt_type (7.9.8.1.18)	Wave power absorbed by the fast ion species [W]; Time-dependent; Vector (nion)
pow_fz	matflt_type (7.9.8.1.15)	Wave power absorbed by the fast impurity species [W]; Time-dependent; Vector (nimpur, nzimp)
pow_ntor_e	vecflt_type (7.9.8.1.18)	Wave power absorbed by the thermal electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_i	matflt_type (7.9.8.1.15)	Wave power absorbed by an the thermal ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)
pow_ntor_z	array3dflt_type (7.9.8.1.7)	Wave power absorbed by an the thermal impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
pow_ntor_fe	vecflt_type (7.9.8.1.18)	Wave power absorbed by the fast electrons for each toroidal mode [W]; Time-dependent; Vector (ntor)
pow_ntor_fi	matflt_type (7.9.8.1.15)	Wave power absorbed by an the fast ion species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nion)

member	type	description
pow_ntor_fz	array3dflt_type (7.9.8.1.7)	Wave power absorbed by an the fast impurity species for each toroidal mode [W]; Time-dependent; Matrix (ntor, nimpur, nzimp)
cur_tor	float (7.9.8.1.2)	Wave driven toroidal current from a stand alone calculation (not consistent with other sources) [A]; Time-dependent, Float
cur_tor_ntor	vecflt_type (7.9.8.1.18)	Wave driven toroidal current for each toroidal mode number from a stand alone calculation (not consistent with other sources) [A]; Time-dependent; Vector (ntor)
mag_axis	rz0D (7.9.8.1.386)	Position of the magnetic axis. Time-dependent; Scalar
toroid_field	b0r0 (7.9.8.1.82)	Characteristics of the vacuum toroidal field (used to define the rho_tor coordinate and the normalisation of parallel current densities).

Type of: coherentwave:global_param (4210)

7.9.8.1.527 waves_grid_1d

Grid points for profiles

member	type	description
rho_tor	vecflt_type (7.9.8.1.18)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Vector (npsi)
rho_tor_norm	vecflt_type (7.9.8.1.18)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface, or last available fluxsurface if the last closed flux surface is not defined. Time-dependent; Vector (npsi)
psi	vecflt_type (7.9.8.1.18)	Poloidal flux function [Wb], evaluated without 1/2pi, such that Bp=|grad psi| /R/2/pi. Time-dependent; Vector (npsi)
volume	vecflt_type (7.9.8.1.18)	Volume enclosed by the flux surface [m^3]. Time-dependent; Vector (npsi)
area	vecflt_type (7.9.8.1.18)	Cross-sectional area of the flux surface [m^2]. Time-dependent; Vector (npsi)

Type of: coherentwave:grid_1d (4210)

7.9.8.1.528 waves_grid_2d

Grid points for 2D profiles

member	type	description
grid_type	integer (7.9.8.1.3)	Grid type. 1: rectangular grid in (R,Z). 2: rectangular grid in (psi, theta). 3: unstructured grid. Integer.
rho_tor_norm	matflt_type (7.9.8.1.15)	The toroidal flux coordinate normalised to be zero at the axis and unity at the last closed flux surface (or last available fluxsurface from a fix boundary equilibrium code). Time-dependent; Matrix (ndim1, ndim2)
rho_tor	matflt_type (7.9.8.1.15)	Toroidal flux coordinate [m]. Defined as sqrt((phi-phi_axis)/pi/B0), where B0=../global_param/toroid_field/b0, phi is the toroidal flux and phi_axis is the toroidal flux at the magnetic axis. Time-dependent; Matrix (ndim1, ndim2)
psi	matflt_type (7.9.8.1.15)	Grid points in poloidal flux function [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi. Time-dependent; Matrix (ndim1, ndim2)
theta	matflt_type (7.9.8.1.15)	Poloidal angle at the grid points (see theta_info for detailed definition); Time-dependent; Matrix (ndim1, ndim2)
r	matflt_type (7.9.8.1.15)	R (major radius) of grid points; Time-dependent; Matrix(ndim1, ndim2)
z	matflt_type (7.9.8.1.15)	Z (altitude) of grid points; Time-dependent; Matrix (ndim1, ndim2)
theta_info	theta_info (7.9.8.1.485)	Information on the poloidal angle theta.

Type of: coherentwave:grid_2d (4210)

7.9.8.1.529 waves_profiles_1d

waves 1D radial profiles

member	type	description
powd_tot	vecflt_type (7.9.8.1.18)	Total flux surface averaged wave power density [W/m^3]; Time-dependent; Vector (npsi)
powd_e	vecflt_type (7.9.8.1.18)	Flux surface averaged absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_i	matflt_type (7.9.8.1.15)	Flux surface averaged absorbed wave power density on the thermal ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_z	array3dflt_type (7.9.8.1.7)	Flux surface averaged absorbed wave power density on the thermal impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)

member	type	description
powd_fe	vecflt_type (7.9.8.1.18)	Flux surface averaged absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Vector (npsi)
powd_fi	matflt_type (7.9.8.1.15)	Flux surface averaged absorbed wave power density on the fast ion species [W/m^3]; Time-dependent; Matrix (npsi, nion)
powd_fz	array3dflt_type (7.9.8.1.7)	Flux surface averaged absorbed wave power density on the fast impurities species [W/m^3]; Time-dependent; Matrix (npsi, nimpur, nzimp)
powd_ntor	matflt_type (7.9.8.1.15)	Flux surface averaged power density for each toroidal mode number [W/m^3]; Time-dependent; Matrix(npsi, ntor)
powd_ntor_e	matflt_type (7.9.8.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_i	array3dflt_type (7.9.8.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_z	array4dflt_type (7.9.8.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
powd_ntor_fe	matflt_type (7.9.8.1.15)	Flux surface averaged power density absorbed for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Matrix (npsi, ntor)
powd_ntor_fi	array3dflt_type (7.9.8.1.7)	Flux surface averaged power density absorbed for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nion)
powd_ntor_fz	array4dflt_type (7.9.8.1.9)	Flux surface averaged power density absorbed for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_tor	vecflt_type (7.9.8.1.18)	Flux surface averaged wave driven toroidal current density = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Vector (npsi)
curd_torntor	matflt_type (7.9.8.1.15)	Flux surface averaged wave driven toroidal current density for each toroidal mode number = average(jphi/R) / average(1/R) [A/m^2]; Time-dependent; Matrix (npsi, ntor)
pow_tot	vecflt_type (7.9.8.1.18)	Cumulative volume integral of the absorbed wave power density [W]; Time-dependent; Vector (npsi)
pow_e	vecflt_type (7.9.8.1.18)	Cumulative volume integral of the absorbed wave power on the thermal electrons [W]; Time-dependent; Vector (npsi)
pow_i	matflt_type (7.9.8.1.15)	Cumulative volume integral of the absorbed wave power on the thermal ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_z	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power on the thermal impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_fe	vecflt_type (7.9.8.1.18)	Cumulative volume integral of the absorbed wave power on the fast electrons [W]; Time-dependent; Vector (npsi)
pow_fi	matflt_type (7.9.8.1.15)	Cumulative volume integral of the absorbed wave power on the fast ion species [W]; Time-dependent; Matrix (npsi, nion)
pow_fz	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power on the fast impurities species [W]; Time-dependent; Matrix (npsi, nimpur, nzimp)
pow_ntor	matflt_type (7.9.8.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_e	matflt_type (7.9.8.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the thermal electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_i	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_z	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each thermal impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
pow_ntor_fe	matflt_type (7.9.8.1.15)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on the fast electrons [W]; Time-dependent; Matrix (npsi, ntor)
pow_ntor_fi	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast ions species [W]; Time-dependent; Array3D (npsi, ntor, nion)
pow_ntor_fz	array3dflt_type (7.9.8.1.7)	Cumulative volume integral of the absorbed wave power for each toroidal mode number on each fast impurity species [W]; Time-dependent; Array3D (npsi, ntor, nimpur, nzimp)
curd_par	vecflt_type (7.9.8.1.18)	Flux surface averaged wave driven parallel current density = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Vector (npsi)
curd_parntor	matflt_type (7.9.8.1.15)	Flux surface averaged wave driven parallel current density for each toroidal mode number = average(j.B) / B0, where B0 = global_param/toroid_field/b0; [A/m^2]; Time-dependent; Matrix (npsi, ntor)
cur_tor	vecflt_type (7.9.8.1.18)	Wave driven toroidal current inside a flux surface [A]; Time-dependent; Vector (npsi)
cur_tor_ntor	matflt_type (7.9.8.1.15)	Wave driven toroidal current inside a flux surface for each toroidal mode number [A]; Time-dependent; Matrix (npsi, ntor)
e_plus_ave	matflt_type (7.9.8.1.15)	The left hand polarised electric field component, E_plus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_plus_ave = ave(E_plus P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_minus_ave	matflt_type (7.9.8.1.15)	The right hand polarised electric field component, E_minus [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_minus_ave = ave(E_minus P) / ave(P), where (*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)
e_para_ave	matflt_type (7.9.8.1.15)	The parallel electric field component, E_para [V/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that e_para_ave = ave(E_para P) / ave(P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)

member	type	description
k_perp_ave	matflt_type (7.9.8.1.15)	The perpendicular wave number, k_perp [1/m], averaged over the flux surface, where the averaged is weighted with the power depotition, P, such that k_perp_ave = ave(k_perp P) / (P), where ave(*) is the flux surface average operator; Time-dependent; Matrix (npsi, ntor)

Type of: coherentwave:profiles_1d (4210)

7.9.8.1.530 waves_profiles_2d

waves 2D profiles in poloidal cross-section

member	type	description
powd_tot	matflt_type (7.9.8.1.15)	Total wave power density; Time-dependent [W/m^3]; Matrix (ndim1, ndim2)
powd_e	matflt_type (7.9.8.1.15)	Absorbed wave power density on the thermal electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_i	array3dflt_type (7.9.8.1.7)	Absorbed wave power density on each thermal ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_z	array4dflt_type (7.9.8.1.9)	Absorbed wave power density on each thermal impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_fe	matflt_type (7.9.8.1.15)	Absorbed wave power density on the fast electrons [W/m^3]; Time-dependent; Matrix (ndim1, ndim2)
powd_fi	array3dflt_type (7.9.8.1.7)	Absorbed wave power density on each fast ion species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nion)
powd_fz	array4dflt_type (7.9.8.1.9)	Absorbed wave power density on each fast impurity species [W/m^3]; Time-dependent; Array3D (ndim1, ndim2, nimpur, nzimp)
powd_ntor	array3dflt_type (7.9.8.1.7)	Absorbed power density for each toroidal mode number [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_e	array3dflt_type (7.9.8.1.7)	Absorbed power density for each toroidal mode number on the thermal electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_i	array4dflt_type (7.9.8.1.9)	Absorbed power density for each toroidal mode number on each thermal ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_z	array5dflt_type (7.9.8.1.10)	Absorbed power density for each toroidal mode number on each thermal impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_ntor_fe	array3dflt_type (7.9.8.1.7)	Absorbed power density for each toroidal mode number on the fast electrons [W/m^3]; Time-dependent; Array 3D (ndim1, ndim2, ntor)
powd_ntor_fi	array4dflt_type (7.9.8.1.9)	Absorbed power density for each toroidal mode number on each fast ions species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nion)
powd_ntor_fz	array5dflt_type (7.9.8.1.10)	Absorbed power density for each toroidal mode number on each fast impurity species [W/m^3]; Time-dependent; Array4D (ndim1, ndim2, ntor, nimpur, nzimp)
powd_iharm	array5dflt_type (7.9.8.1.10)	Power density absorbed by an ion species for each toroidal mode numer at a given harmonic cyclotron resonance ; Time-dependent (W/m^3); Array5D (ndim1, ndim2, ntor, nion, nharm)

Type of: coherentwave:profiles_2d (4210)

7.9.8.1.531 waves_rtposition

Ray/beam position

member	type	description
r	vecflt_type (7.9.8.1.18)	Major radius location [m]; Time-dependent; Vector (npoints)
z	vecflt_type (7.9.8.1.18)	Vertical location [m]; Time-dependent; Vector (npoints)
phi	vecflt_type (7.9.8.1.18)	Toroidal angle location [rad]; Time-dependent; Vector (npoints)
psi	vecflt_type (7.9.8.1.18)	Poloidal magnetic flux coordinate [Wb], without 1/2pi and such that Bp=|grad psi| /R/2/pi; Time-dependent; Vector (npoints)
theta	vecflt_type (7.9.8.1.18)	Poloidal angle location [rad]; Time-dependent; Vector (npoints). PRECISE THE DEFINITION OF THE POLOIDAL ANGLE, SEE WAVES/COHERENTWAVE(:)/GRID_2D.

Type of: beamtracing:position (4192)

7.9.8.1.532 waves_rtwavevector

Ray/beam wave vector

member	type	description
kr	vecflt_type (7.9.8.1.18)	Wave vector in the major radius direction [m**-1], Vector (npoints). Time-dependent
kz	vecflt_type (7.9.8.1.18)	Wave vector in the vertical direction [m**-1], Vector (npoints). Time-dependent
kphi	vecflt_type (7.9.8.1.18)	Wave vector in the toroidal direction [m**-1], Vector (npoints). Time-dependent

member	type	description
npar	vecflt_type (7.9.8.1.18)	Parallel refractive index, Vector (npoints). Time-dependent
nperp	vecflt_type (7.9.8.1.18)	Perpendicular refractive index, Vector (npoints). Time-dependent
ntor	vecflt_type (7.9.8.1.18)	Toroidal wave number, Vector (npoints/1). If var_ntor=0, ntor is constant along the ray path and the last dimension is of size 1 in order to avoid useless repetition of ntor constant value. Time-dependent
var_ntor	integer (7.9.8.1.3)	Flag telling whether ntor is constant along the ray path (0) or varying (1). Integer

Type of: beamtracing:wavevector (4192)

7.9.8.1.533 weighted_markers

Array of NMARK weighted markers in NDIM dimensions

member	type	description
variable_ids(:)	identifier (7.9.8.1.263)	Identifier for the variable_ids stored in the coord matrix (see coordinate_identifier_definitions in the Documentation website under Conventions/Enumerated_datatypes). Vector(NDIM)
coord	matflt_type (7.9.8.1.15)	Coordinates of the markers. The coordinates used is specified in variable_ids. Time-dependent; Float(NMARK,NDIM)
weight	vecflt_type (7.9.8.1.18)	Weight of the marker; number of real particles represented by the marker. Time-dependent; Float(NMARK)

Type of: dist_func:markers (4277) I distsource_source:markers (4302)

7.9.8.1.534 whatref

Structure defining a database entry and the CPO occurrence

member	type	description
user	string (7.9.8.1.4)	Name of the user if private data, public if public ITM database.
machine	string (7.9.8.1.4)	Name of the device
shot	integer (7.9.8.1.3)	Shot number
run	integer (7.9.8.1.3)	Run number
occurrence	integer (7.9.8.1.3)	Occurrence number of the CPO in the reference entry

Type of: datainfo:whatref (4265)

7.9.8.1.535 width

Angular width of each in the poloidal and toroidal direction;

member	type	description
dtheta	vecflt_type (7.9.8.1.18)	Angular poloidal width of holes; Vector (n_holes)
phi	vecflt_type (7.9.8.1.18)	Angular toroidal width of holes; Vector (n_holes)

Type of: holes:width (4365)

7.9.8.1.536 xpts

Position of the X-point(s)

member	type	description
position	rz1D (7.9.8.1.387)	Position of the X-point(s); Time-dependent; Vector (nmeas)
source	string (7.9.8.1.4)	Description or path to the source signal (diagnostic or genprof, from which to read all info on the signal), e.g. 'magdiag/bpol_probes/measure/value'. String
weight	vecflt_type (7.9.8.1.18)	weight given to the measurement (¿= 0); -1 if exact data; Time-dependent; Vector (nmeas)
sigma	vecflt_type (7.9.8.1.18)	standard deviation of the measurement; Time-dependent; Vector (nmeas)
calculated	vecflt_type (7.9.8.1.18)	Signal as recalculated by the equilibrium code; Time-dependent; Vector (nmeas)
chi2	vecflt_type (7.9.8.1.18)	chi^2 of (calculated-measured); Time-dependent; Vector (nmeas)

Type of: eqconstraint:xpts (4320)

7.9.8.1.537 xyz0D

Structure for a single (x,y,z) position (0D)

member	type	description
x	float (7.9.8.1.2)	Spatial coordinate x [m]
y	float (7.9.8.1.2)	Spatial coordinate y [m]
z	float (7.9.8.1.2)	Spatial coordinate z [m]

Type of: flat_polygon:basis1 (4333) I flat_polygon:basis2 (4333) I flat_polygon:origin (4333) I rectanglexyz:point01 (4477) I rectanglexyz:point10 (4477) I rectanglexyz:point11 (4477) I trianglexyz:point1 (4597) I trianglexyz:point2 (4597) I trianglexyz:point3 (4597) itmtypes [569]

7.9.8.2 CPO Instances

Generated from the ITM data structure schemas.

7.9.8.2.1 Fortran

7.9.8.2.2 amns

datainfo (4127)	amns%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	amns%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	amns%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	amns%datainfo%source (string) (7.9.8.1.4)
comment (4265)	amns%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	amns%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	amns%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	amns%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	amns%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	amns%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	amns%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	amns%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	amns%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	amns%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	amns%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	amns%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	amns%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	amns%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	amns%datainfo%putinfo%rights (string) (7.9.8.1.4)
version (4127)	amns%version (string) (7.9.8.1.4)
source (4127)	amns%source (string) (7.9.8.1.4)
zn (4127)	amns%zn (integer) (7.9.8.1.3)
amn (4127)	amns%amn (float) (7.9.8.1.2)
process (4127)	amns%process(:) (amns_processType) (7.9.8.1.76)
proc_label (4179)	amns%process(:)%proc_label (string) (7.9.8.1.4)
reactant (4179)	amns%process(:)%reactant(:) (reacprodType) (7.9.8.1.372)
label (4475)	amns%process(:)%reactant(:)%label (string) (7.9.8.1.4)
constituents (4475)	amns%process(:)%reactant(:)%constituents(:) (amns_constituentType) (7.9.8.1.75)
label (4178)	amns%process(:)%reactant(:)%constituents(:)%label (string) (7.9.8.1.4)
zn (4178)	amns%process(:)%reactant(:)%constituents(:)%zn (integer) (7.9.8.1.3)
mn (4178)	amns%process(:)%reactant(:)%constituents(:)%mn (integer) (7.9.8.1.3)
multiplicity (4178)	amns%process(:)%reactant(:)%constituents(:)%multiplicity (float) (7.9.8.1.2)
role (4475)	amns%process(:)%reactant(:)%role (identifier) (7.9.8.1.263)
id (4366)	amns%process(:)%reactant(:)%role%id (string) (7.9.8.1.4)
flag (4366)	amns%process(:)%reactant(:)%role%flag (integer) (7.9.8.1.3)
description (4366)	amns%process(:)%reactant(:)%role%description (string) (7.9.8.1.4)
amn (4475)	amns%process(:)%reactant(:)%amn (float) (7.9.8.1.2)
relative (4475)	amns%process(:)%reactant(:)%relative (integer) (7.9.8.1.3)
za (4475)	amns%process(:)%reactant(:)%za (float) (7.9.8.1.2)

[569] https://www.efda-itm.eu/ITM/html/itmtypes__4.10b.11.html

multiplicity (4475)	amns%process(:)%reactant(:)%multiplicity (float) (7.9.8.1.2)
metastable (4475)	amns%process(:)%reactant(:)%metastable (vecint_type) (7.9.8.1.19)
metastable_label (4475)	amns%process(:)%reactant(:)%metastable_label (string) (7.9.8.1.4)
product (4179)	amns%process(:)%product(:) (reacprodType) (7.9.8.1.372)
label (4475)	amns%process(:)%product(:)%label (string) (7.9.8.1.4)
constituents (4475)	amns%process(:)%product(:)%constituents(:) (amns_constituentType) (7.9.8.1.75)
label (4178)	amns%process(:)%product(:)%constituents(:)%label (string) (7.9.8.1.4)
zn (4178)	amns%process(:)%product(:)%constituents(:)%zn (integer) (7.9.8.1.3)
mn (4178)	amns%process(:)%product(:)%constituents(:)%mn (integer) (7.9.8.1.3)
multiplicity (4178)	amns%process(:)%product(:)%constituents(:)%multiplicity (float) (7.9.8.1.2)
role (4475)	amns%process(:)%product(:)%role (identifier) (7.9.8.1.263)
id (4366)	amns%process(:)%product(:)%role%id (string) (7.9.8.1.4)
flag (4366)	amns%process(:)%product(:)%role%flag (integer) (7.9.8.1.3)
description (4366)	amns%process(:)%product(:)%role%description (string) (7.9.8.1.4)
amn (4475)	amns%process(:)%product(:)%amn (float) (7.9.8.1.2)
relative (4475)	amns%process(:)%product(:)%relative (integer) (7.9.8.1.3)
za (4475)	amns%process(:)%product(:)%za (float) (7.9.8.1.2)
multiplicity (4475)	amns%process(:)%product(:)%multiplicity (float) (7.9.8.1.2)
metastable (4475)	amns%process(:)%product(:)%metastable (vecint_type) (7.9.8.1.19)
metastable_label (4475)	amns%process(:)%product(:)%metastable_label (string) (7.9.8.1.4)
sup_string (4179)	amns%process(:)%sup_string (vecstring_type) (7.9.8.1.20)
sup_real (4179)	amns%process(:)%sup_real (vecflt_type) (7.9.8.1.18)
sup_int (4179)	amns%process(:)%sup_int (vecint_type) (7.9.8.1.19)
quality (4179)	amns%process(:)%quality (identifier) (7.9.8.1.263)
id (4366)	amns%process(:)%quality%id (string) (7.9.8.1.4)
flag (4366)	amns%process(:)%quality%flag (integer) (7.9.8.1.3)
description (4366)	amns%process(:)%quality%description (string) (7.9.8.1.4)
err_proc_label (4179)	amns%process(:)%err_proc_label (string) (7.9.8.1.4)
tables (4127)	amns%tables(:) (tables) (7.9.8.1.449)
ndim (4552)	amns%tables(:)%ndim (integer) (7.9.8.1.3)
coord_index (4552)	amns%tables(:)%coord_index (integer) (7.9.8.1.3)
result_label (4552)	amns%tables(:)%result_label (string) (7.9.8.1.4)
result_unit (4552)	amns%tables(:)%result_unit (string) (7.9.8.1.4)
result_trans (4552)	amns%tables(:)%result_trans (integer) (7.9.8.1.3)
zmin (4552)	amns%tables(:)%zmin (vecint_type) (7.9.8.1.19)
zmax (4552)	amns%tables(:)%zmax (vecint_type) (7.9.8.1.19)
state_label (4552)	amns%tables(:)%state_label (vecstring_type) (7.9.8.1.20)
table (4552)	amns%tables(:)%table(:) (table) (7.9.8.1.448)
filled (4551)	amns%tables(:)%table(:)%filled (integer) (7.9.8.1.3)
table_0d (4551)	amns%tables(:)%table(:)%table_0d (float) (7.9.8.1.2)
table_1d (4551)	amns%tables(:)%table(:)%table_1d (vecflt_type) (7.9.8.1.18)
table_2d (4551)	amns%tables(:)%table(:)%table_2d (matflt_type) (7.9.8.1.15)
table_3d (4551)	amns%tables(:)%table(:)%table_3d (array3dflt_type) (7.9.8.1.7)
table_4d (4551)	amns%tables(:)%table(:)%table_4d (array4dflt_type) (7.9.8.1.9)
table_5d (4551)	amns%tables(:)%table(:)%table_5d (array5dflt_type) (7.9.8.1.10)
table_6d (4551)	amns%tables(:)%table(:)%table_6d (array6dflt_type) (7.9.8.1.11)
coord1_str (4551)	amns%tables(:)%table(:)%coord1_str (vecstring_type) (7.9.8.1.20)
coord2_str (4551)	amns%tables(:)%table(:)%coord2_str (vecstring_type) (7.9.8.1.20)
coord3_str (4551)	amns%tables(:)%table(:)%coord3_str (vecstring_type) (7.9.8.1.20)
coord4_str (4551)	amns%tables(:)%table(:)%coord4_str (vecstring_type) (7.9.8.1.20)
coord5_str (4551)	amns%tables(:)%table(:)%coord5_str (vecstring_type) (7.9.8.1.20)
coord6_str (4551)	amns%tables(:)%table(:)%coord6_str (vecstring_type) (7.9.8.1.20)
quality (4551)	amns%tables(:)%table(:)%quality (identifier) (7.9.8.1.263)
id (4366)	amns%tables(:)%table(:)%quality%id (string) (7.9.8.1.4)
flag (4366)	amns%tables(:)%table(:)%quality%flag (integer) (7.9.8.1.3)
description (4366)	amns%tables(:)%table(:)%quality%description (string) (7.9.8.1.4)
data_source (4552)	amns%tables(:)%data_source (string) (7.9.8.1.4)
data_provide (4552)	amns%tables(:)%data_provide (string) (7.9.8.1.4)
data_citation (4552)	amns%tables(:)%data_citation (string) (7.9.8.1.4)
tables_coord (4127)	amns%tables_coord(:) (tables_coord) (7.9.8.1.450)
coords (4553)	amns%tables_coord(:)%coords(:) (coords) (7.9.8.1.131)

coord (4234)	amns%tables_coord(:)%coords(:)%coord (vecflt_type) (7.9.8.1.18)
coord_label (4234)	amns%tables_coord(:)%coords(:)%coord_label (vecstring_type) (7.9.8.1.20)
extrap_type (4234)	amns%tables_coord(:)%coords(:)%extrap_type (vecint_type) (7.9.8.1.19)
interp_type (4234)	amns%tables_coord(:)%coords(:)%interp_type (integer) (7.9.8.1.3)
label (4234)	amns%tables_coord(:)%coords(:)%label (string) (7.9.8.1.4)
unit (4234)	amns%tables_coord(:)%coords(:)%unit (string) (7.9.8.1.4)
transform (4234)	amns%tables_coord(:)%coords(:)%transform (integer) (7.9.8.1.3)
spacing (4234)	amns%tables_coord(:)%coords(:)%spacing (integer) (7.9.8.1.3)
version_ind (4127)	amns%version_ind(:) (version_ind) (7.9.8.1.508)
description (4611)	amns%version_ind(:)%description (vecstring_type) (7.9.8.1.20)
releasedate (4611)	amns%version_ind(:)%releasedate (string) (7.9.8.1.4)
data_release (4611)	amns%version_ind(:)%data_release(:) (data_release) (7.9.8.1.161)
shot (4264)	amns%version_ind(:)%data_release(:)%shot (integer) (7.9.8.1.3)
run (4264)	amns%version_ind(:)%data_release(:)%run (integer) (7.9.8.1.3)
description (4264)	amns%version_ind(:)%data_release(:)%description (vecstring_type) (7.9.8.1.20)
codeparam (4127)	amns%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	amns%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	amns%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	amns%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	amns%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	amns%codeparam%output_flag (integer) (7.9.8.1.3)
time (4127)	amns%time (float) (7.9.8.1.2)

7.9.8.2.3 antennas

datainfo (4128)	antennas%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	antennas%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	antennas%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	antennas%datainfo%source (string) (7.9.8.1.4)
comment (4265)	antennas%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	antennas%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	antennas%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	antennas%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	antennas%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	antennas%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	antennas%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	antennas%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	antennas%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	antennas%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	antennas%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	antennas%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	antennas%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	antennas%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	antennas%datainfo%putinfo%rights (string) (7.9.8.1.4)
antenna_ec (4128)	antennas%antenna_ec(:) (antenna_ec) (7.9.8.1.77)
name (4180)	antennas%antenna_ec(:)%name (string) (7.9.8.1.4)
frequency (4180)	antennas%antenna_ec(:)%frequency (float) (7.9.8.1.2)
power (4180)	antennas%antenna_ec(:)%power (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_ec(:)%power%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_ec(:)%power%abserror (float) (7.9.8.1.2)
relerror (4327)	antennas%antenna_ec(:)%power%relerror (float) (7.9.8.1.2)
mode (4180)	antennas%antenna_ec(:)%mode (integer) (7.9.8.1.3)
position (4180)	antennas%antenna_ec(:)%position (rzphi0D) (7.9.8.1.392)
r (4495)	antennas%antenna_ec(:)%position%r (float) (7.9.8.1.2)
z (4495)	antennas%antenna_ec(:)%position%z (float) (7.9.8.1.2)
phi (4495)	antennas%antenna_ec(:)%position%phi (float) (7.9.8.1.2)
launchangles (4180)	antennas%antenna_ec(:)%launchangles (launchangles) (7.9.8.1.273)
alpha (4376)	antennas%antenna_ec(:)%launchangles%alpha (float) (7.9.8.1.2)
beta (4376)	antennas%antenna_ec(:)%launchangles%beta (float) (7.9.8.1.2)
beam (4180)	antennas%antenna_ec(:)%beam (rfbeam) (7.9.8.1.385)
spot (4488)	antennas%antenna_ec(:)%beam%spot (spot) (7.9.8.1.442)

size (4545)	antennas%antenna_ec(:)%beam%spot%size (vecflt_type) (7.9.8.1.18)
angle (4545)	antennas%antenna_ec(:)%beam%spot%angle (float) (7.9.8.1.2)
phaseellipse (4488)	antennas%antenna_ec(:)%beam%phaseellipse (phaseellipse) (7.9.8.1.357)
invcurvrad (4460)	antennas%antenna_ec(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.8.1.18)
angle (4460)	antennas%antenna_ec(:)%beam%phaseellipse%angle (float) (7.9.8.1.2)
codeparam (4180)	antennas%antenna_ec(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	antennas%antenna_ec(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	antennas%antenna_ec(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	antennas%antenna_ec(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	antennas%antenna_ec(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	antennas%antenna_ec(:)%codeparam%output_flag (integer) (7.9.8.1.3)
antenna_ic (4128)	antennas%antenna_ic(:) (antenna_ic) (7.9.8.1.78)
name (4181)	antennas%antenna_ic(:)%name (string) (7.9.8.1.4)
frequency (4181)	antennas%antenna_ic(:)%frequency (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_ic(:)%frequency%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_ic(:)%frequency%abserror (float) (7.9.8.1.2)
relerror (4327)	antennas%antenna_ic(:)%frequency%relerror (float) (7.9.8.1.2)
power (4181)	antennas%antenna_ic(:)%power (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_ic(:)%power%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_ic(:)%power%abserror (float) (7.9.8.1.2)
relerror (4327)	antennas%antenna_ic(:)%power%relerror (float) (7.9.8.1.2)
ntor (4181)	antennas%antenna_ic(:)%ntor (vecint_type) (7.9.8.1.19)
power_ntor (4181)	antennas%antenna_ic(:)%power_ntor (vecflt_type) (7.9.8.1.18)
setup (4181)	antennas%antenna_ic(:)%setup (antennaic_setup) (7.9.8.1.80)
straps (4183)	antennas%antenna_ic(:)%setup%straps(:) (straps) (7.9.8.1.444)
current (4547)	antennas%antenna_ic(:)%setup%straps(:)%current (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_ic(:)%setup%straps(:)%current%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_ic(:)%setup%straps(:)%current%abserror (float) (7.9.8.1.2)
relerror (4327)	antennas%antenna_ic(:)%setup%straps(:)%current%relerror (float) (7.9.8.1.2)
phase (4547)	antennas%antenna_ic(:)%setup%straps(:)%phase (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_ic(:)%setup%straps(:)%phase%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_ic(:)%setup%straps(:)%phase%abserror (float) (7.9.8.1.2)
relerror (4327)	antennas%antenna_ic(:)%setup%straps(:)%phase%relerror (float) (7.9.8.1.2)
phi_centre (4547)	antennas%antenna_ic(:)%setup%straps(:)%phi_centre (float) (7.9.8.1.2)
width (4547)	antennas%antenna_ic(:)%setup%straps(:)%width (float) (7.9.8.1.2)
dist2wall (4547)	antennas%antenna_ic(:)%setup%straps(:)%dist2wall (float) (7.9.8.1.2)
coord_strap (4547)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap (rz1D) (7.9.8.1.387)
r (4490)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%r (vecflt_type) (7.9.8.1.18)
z (4490)	antennas%antenna_ic(:)%setup%straps(:)%coord_strap%z (vecflt_type) (7.9.8.1.18)
current (4183)	antennas%antenna_ic(:)%setup%current (current) (7.9.8.1.158)
mpol (4261)	antennas%antenna_ic(:)%setup%current%mpol (vecint_type) (7.9.8.1.19)
ntor (4261)	antennas%antenna_ic(:)%setup%current%ntor (vecint_type) (7.9.8.1.19)
spectrum (4261)	antennas%antenna_ic(:)%setup%current%spectrum (exp1D) (7.9.8.1.225)
value (4328)	antennas%antenna_ic(:)%setup%current%spectrum%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	antennas%antenna_ic(:)%setup%current%spectrum%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	antennas%antenna_ic(:)%setup%current%spectrum%relerror (vecflt_type) (7.9.8.1.18)
rz_reference (4261)	antennas%antenna_ic(:)%setup%current%rz_reference (rz0D) (7.9.8.1.386)
r (4489)	antennas%antenna_ic(:)%setup%current%rz_reference%r (float) (7.9.8.1.2)
z (4489)	antennas%antenna_ic(:)%setup%current%rz_reference%z (float) (7.9.8.1.2)
codeparam (4181)	antennas%antenna_ic(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	antennas%antenna_ic(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	antennas%antenna_ic(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	antennas%antenna_ic(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	antennas%antenna_ic(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	antennas%antenna_ic(:)%codeparam%output_flag (integer) (7.9.8.1.3)
antenna_lh (4128)	antennas%antenna_lh(:) (antenna_lh) (7.9.8.1.79)
name (4182)	antennas%antenna_lh(:)%name (string) (7.9.8.1.4)
frequency (4182)	antennas%antenna_lh(:)%frequency (float) (7.9.8.1.2)
power (4182)	antennas%antenna_lh(:)%power (exp0D) (7.9.8.1.224)
value (4327)	antennas%antenna_lh(:)%power%value (float) (7.9.8.1.2)
abserror (4327)	antennas%antenna_lh(:)%power%abserror (float) (7.9.8.1.2)

relerror (4327)	antennas%antenna_lh(:)%power%relerror (float) (7.9.8.1.2)
n_par (4182)	antennas%antenna_lh(:)%n_par (float) (7.9.8.1.2)
position (4182)	antennas%antenna_lh(:)%position (rzphi0D) (7.9.8.1.392)
r (4495)	antennas%antenna_lh(:)%position%r (float) (7.9.8.1.2)
z (4495)	antennas%antenna_lh(:)%position%z (float) (7.9.8.1.2)
phi (4495)	antennas%antenna_lh(:)%position%phi (float) (7.9.8.1.2)
setup (4182)	antennas%antenna_lh(:)%setup (antennalh_setup) (7.9.8.1.81)
modules (4184)	antennas%antenna_lh(:)%setup%modules (modules) (7.9.8.1.303)
nma_theta (4406)	antennas%antenna_lh(:)%setup%modules%nma_theta (integer) (7.9.8.1.3)
nma_phi (4406)	antennas%antenna_lh(:)%setup%modules%nma_phi (integer) (7.9.8.1.3)
ima_theta (4406)	antennas%antenna_lh(:)%setup%modules%ima_theta (vecint_type) (7.9.8.1.19)
ima_phi (4406)	antennas%antenna_lh(:)%setup%modules%ima_phi (vecint_type) (7.9.8.1.19)
sm_theta (4406)	antennas%antenna_lh(:)%setup%modules%sm_theta (float) (7.9.8.1.2)
amplitude (4406)	antennas%antenna_lh(:)%setup%modules%amplitude (exp1D) (7.9.8.1.225)
value (4328)	antennas%antenna_lh(:)%setup%modules%amplitude%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	antennas%antenna_lh(:)%setup%modules%amplitude%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	antennas%antenna_lh(:)%setup%modules%amplitude%relerror (vecflt_type) (7.9.8.1.18)
phase (4406)	antennas%antenna_lh(:)%setup%modules%phase (exp1D) (7.9.8.1.225)
value (4328)	antennas%antenna_lh(:)%setup%modules%phase%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	antennas%antenna_lh(:)%setup%modules%phase%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	antennas%antenna_lh(:)%setup%modules%phase%relerror (vecflt_type) (7.9.8.1.18)
waveguides (4406)	antennas%antenna_lh(:)%setup%modules%waveguides (waveguides) (7.9.8.1.525)
nwm_theta (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_theta (integer) (7.9.8.1.3)
nwm_phi (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%nwm_phi (integer) (7.9.8.1.3)
mask (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%mask (vecint_type) (7.9.8.1.19)
npwbm_phi (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%npwbm_phi (integer) (7.9.8.1.3)
npwe_phi (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%npwe_phi (integer) (7.9.8.1.3)
sw_theta (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%sw_theta (float) (7.9.8.1.2)
hw_theta (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%hw_theta (float) (7.9.8.1.2)
bwa (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%bwa (float) (7.9.8.1.2)
biwp (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%biwp (float) (7.9.8.1.2)
bewp (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%bewp (float) (7.9.8.1.2)
e_phi (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%e_phi (vecflt_type) (7.9.8.1.18)
scl (4628)	antennas%antenna_lh(:)%setup%modules%waveguides%scl (vecflt_type) (7.9.8.1.18)
plasmaedge (4182)	antennas%antenna_lh(:)%plasmaedge (plasmaedge) (7.9.8.1.360)
npoints (4463)	antennas%antenna_lh(:)%plasmaedge%npoints (integer) (7.9.8.1.3)
distance (4463)	antennas%antenna_lh(:)%plasmaedge%distance (vecflt_type) (7.9.8.1.18)
density (4463)	antennas%antenna_lh(:)%plasmaedge%density (vecflt_type) (7.9.8.1.18)
beam (4182)	antennas%antenna_lh(:)%beam (rfbeam) (7.9.8.1.385)
spot (4488)	antennas%antenna_lh(:)%beam%spot (spot) (7.9.8.1.442)
size (4545)	antennas%antenna_lh(:)%beam%spot%size (vecflt_type) (7.9.8.1.18)
angle (4545)	antennas%antenna_lh(:)%beam%spot%angle (float) (7.9.8.1.2)
phaseellipse (4488)	antennas%antenna_lh(:)%beam%phaseellipse (phaseellipse) (7.9.8.1.357)
invcurvrad (4460)	antennas%antenna_lh(:)%beam%phaseellipse%invcurvrad (vecflt_type) (7.9.8.1.18)
angle (4460)	antennas%antenna_lh(:)%beam%phaseellipse%angle (float) (7.9.8.1.2)
codeparam (4182)	antennas%antenna_lh(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	antennas%antenna_lh(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	antennas%antenna_lh(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	antennas%antenna_lh(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	antennas%antenna_lh(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	antennas%antenna_lh(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4128)	antennas%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	antennas%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	antennas%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	antennas%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	antennas%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	antennas%codeparam%output_flag (integer) (7.9.8.1.3)
time (4128)	antennas%time (float) (7.9.8.1.2)

7.9.8.2.4 bb_shield

datainfo (4129)	bb_shield%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	bb_shield%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	bb_shield%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	bb_shield%datainfo%source (string) (7.9.8.1.4)
comment (4265)	bb_shield%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	bb_shield%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	bb_shield%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	bb_shield%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	bb_shield%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	bb_shield%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	bb_shield%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	bb_shield%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	bb_shield%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	bb_shield%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	bb_shield%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	bb_shield%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	bb_shield%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	bb_shield%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	bb_shield%datainfo%putinfo%rights (string) (7.9.8.1.4)
type (4129)	bb_shield%type (string) (7.9.8.1.4)
limits (4129)	bb_shield%limits (limits) (7.9.8.1.281)
fw_dpa (4384)	bb_shield%limits%fw_dpa (float) (7.9.8.1.2)
he_appm (4384)	bb_shield%limits%he_appm (float) (7.9.8.1.2)
ins_dose (4384)	bb_shield%limits%ins_dose (float) (7.9.8.1.2)
fn_flu (4384)	bb_shield%limits%fn_flu (float) (7.9.8.1.2)
dpa_cu (4384)	bb_shield%limits%dpa_cu (float) (7.9.8.1.2)
wp_nh (4384)	bb_shield%limits%wp_nh (float) (7.9.8.1.2)
li6_enrich (4129)	bb_shield%li6_enrich (float) (7.9.8.1.2)
geom (4129)	bb_shield%geom (geom) (7.9.8.1.254)
dr_bb_sh_ib (4357)	bb_shield%geom%dr_bb_sh_ib (float) (7.9.8.1.2)
dr_sh_vv_ib (4357)	bb_shield%geom%dr_sh_vv_ib (float) (7.9.8.1.2)
dr_bb_sh_ob (4357)	bb_shield%geom%dr_bb_sh_ob (float) (7.9.8.1.2)
dr_sh_vv_ob (4357)	bb_shield%geom%dr_sh_vv_ob (float) (7.9.8.1.2)
dr_bb__sh_ib (4357)	bb_shield%geom%dr_bb__sh_ib (float) (7.9.8.1.2)
dr_bb__sh_ob (4357)	bb_shield%geom%dr_bb__sh_ob (float) (7.9.8.1.2)
delta_int (4357)	bb_shield%geom%delta_int (float) (7.9.8.1.2)
neut_results (4129)	bb_shield%neut_results (neut_results) (7.9.8.1.317)
tbr_bk (4420)	bb_shield%neut_results%tbr_bk (float) (7.9.8.1.2)
tbr_bk_inb (4420)	bb_shield%neut_results%tbr_bk_inb (float) (7.9.8.1.2)
tbr_bk_outb (4420)	bb_shield%neut_results%tbr_bk_outb (float) (7.9.8.1.2)
me_bk (4420)	bb_shield%neut_results%me_bk (float) (7.9.8.1.2)
me_shield (4420)	bb_shield%neut_results%me_shield (float) (7.9.8.1.2)
he_appm_res (4420)	bb_shield%neut_results%he_appm_res (float) (7.9.8.1.2)
ins_dose_max (4420)	bb_shield%neut_results%ins_dose_max (float) (7.9.8.1.2)
fn_flu_max (4420)	bb_shield%neut_results%fn_flu_max (float) (7.9.8.1.2)
dpa_cu_max (4420)	bb_shield%neut_results%dpa_cu_max (float) (7.9.8.1.2)
fn_flux_bz (4420)	bb_shield%neut_results%fn_flux_bz (float) (7.9.8.1.2)
fn_flux_bp (4420)	bb_shield%neut_results%fn_flux_bp (float) (7.9.8.1.2)
fn_flux_man (4420)	bb_shield%neut_results%fn_flux_man (float) (7.9.8.1.2)
fn_flux_sh (4420)	bb_shield%neut_results%fn_flux_sh (float) (7.9.8.1.2)
p_nh_bk (4420)	bb_shield%neut_results%p_nh_bk (float) (7.9.8.1.2)
p_nh_sh (4420)	bb_shield%neut_results%p_nh_sh (float) (7.9.8.1.2)
shield (4129)	bb_shield%shield (shield) (7.9.8.1.426)
inboard (4529)	bb_shield%shield%inboard (shield_specs) (7.9.8.1.427)
nmat (4530)	bb_shield%shield%inboard%nmat (integer) (7.9.8.1.3)
composition (4530)	bb_shield%shield%inboard%composition (vecflt_type) (7.9.8.1.18)
r1 (4530)	bb_shield%shield%inboard%r1 (float) (7.9.8.1.2)
r2 (4530)	bb_shield%shield%inboard%r2 (float) (7.9.8.1.2)
mass (4530)	bb_shield%shield%inboard%mass (float) (7.9.8.1.2)
outboard (4529)	bb_shield%shield%outboard (shield_specs) (7.9.8.1.427)
nmat (4530)	bb_shield%shield%outboard%nmat (integer) (7.9.8.1.3)

composition (4530)	bb_shield%shield%outboard%composition (vecflt_type) (7.9.8.1.18)
r1 (4530)	bb_shield%shield%outboard%r1 (float) (7.9.8.1.2)
r2 (4530)	bb_shield%shield%outboard%r2 (float) (7.9.8.1.2)
mass (4530)	bb_shield%shield%outboard%mass (float) (7.9.8.1.2)
bb (4129)	bb_shield%bb (bb) (7.9.8.1.83)
nb_bb (4186)	bb_shield%bb%nb_bb (float) (7.9.8.1.2)
nb_bb_polcut (4186)	bb_shield%bb%nb_bb_polcut (float) (7.9.8.1.2)
teta_bb (4186)	bb_shield%bb%teta_bb (float) (7.9.8.1.2)
tbr (4186)	bb_shield%bb%tbr (float) (7.9.8.1.2)
neutro_resul (4186)	bb_shield%bb%neutro_resul (neutro_resul) (7.9.8.1.319)
nwl_max (4422)	bb_shield%bb%neutro_resul%nwl_max (float) (7.9.8.1.2)
nwl_pol_prof (4422)	bb_shield%bb%neutro_resul%nwl_pol_prof (vecflt_type) (7.9.8.1.18)
inboard (4186)	bb_shield%bb%inboard (bb_specs) (7.9.8.1.86)
nbb (4189)	bb_shield%bb%inboard%nbb (float) (7.9.8.1.2)
r1 (4189)	bb_shield%bb%inboard%r1 (float) (7.9.8.1.2)
r2 (4189)	bb_shield%bb%inboard%r2 (float) (7.9.8.1.2)
dimension (4189)	bb_shield%bb%inboard%dimension (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%bb%inboard%dimension%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%bb%inboard%dimension%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%bb%inboard%dimension%poloidal (vecflt_type) (7.9.8.1.18)
outboard (4186)	bb_shield%bb%outboard (bb_specs) (7.9.8.1.86)
nbb (4189)	bb_shield%bb%outboard%nbb (float) (7.9.8.1.2)
r1 (4189)	bb_shield%bb%outboard%r1 (float) (7.9.8.1.2)
r2 (4189)	bb_shield%bb%outboard%r2 (float) (7.9.8.1.2)
dimension (4189)	bb_shield%bb%outboard%dimension (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%bb%outboard%dimension%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%bb%outboard%dimension%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%bb%outboard%dimension%poloidal (vecflt_type) (7.9.8.1.18)
hcll (4129)	bb_shield%hcll (hcll) (7.9.8.1.259)
mat_lim (4362)	bb_shield%hcll%mat_lim (mat_lim) (7.9.8.1.289)
cool_t_lim (4392)	bb_shield%hcll%mat_lim%cool_t_lim (float) (7.9.8.1.2)
steel_t_lim (4392)	bb_shield%hcll%mat_lim%steel_t_lim (float) (7.9.8.1.2)
lipb_t_lim (4392)	bb_shield%hcll%mat_lim%lipb_t_lim (float) (7.9.8.1.2)
hcll_bb (4362)	bb_shield%hcll%hcll_bb (hcll_bb) (7.9.8.1.260)
bb_lifetime (4363)	bb_shield%hcll%hcll_bb%bb_lifetime (float) (7.9.8.1.2)
he_inl_t (4363)	bb_shield%hcll%hcll_bb%he_inl_t (float) (7.9.8.1.2)
he_fr (4363)	bb_shield%hcll%hcll_bb%he_fr (float) (7.9.8.1.2)
he_inl_p (4363)	bb_shield%hcll%hcll_bb%he_inl_p (float) (7.9.8.1.2)
loca_des_p (4363)	bb_shield%hcll%hcll_bb%loca_des_p (float) (7.9.8.1.2)
he_dp (4363)	bb_shield%hcll%hcll_bb%he_dp (float) (7.9.8.1.2)
lipb_dp (4363)	bb_shield%hcll%hcll_bb%lipb_dp (float) (7.9.8.1.2)
react (4363)	bb_shield%hcll%hcll_bb%react (react) (7.9.8.1.373)
he_fr (4476)	bb_shield%hcll%hcll_bb%react%he_fr (float) (7.9.8.1.2)
lp_fr (4476)	bb_shield%hcll%hcll_bb%react%lp_fr (float) (7.9.8.1.2)
he_dp (4476)	bb_shield%hcll%hcll_bb%react%he_dp (float) (7.9.8.1.2)
lipb_dp (4476)	bb_shield%hcll%hcll_bb%react%lipb_dp (float) (7.9.8.1.2)
inboard (4363)	bb_shield%hcll%hcll_bb%inboard (hcllbb_specs) (7.9.8.1.261)
mass (4364)	bb_shield%hcll%hcll_bb%inboard%mass (vecflt_type) (7.9.8.1.18)
dr (4364)	bb_shield%hcll%hcll_bb%inboard%dr (vecflt_type) (7.9.8.1.18)
mat (4364)	bb_shield%hcll%hcll_bb%inboard%mat (vecflt_type) (7.9.8.1.18)
composition (4364)	bb_shield%hcll%hcll_bb%inboard%composition (matflt_type) (7.9.8.1.15)
mod_geom (4364)	bb_shield%hcll%hcll_bb%inboard%mod_geom (bb_geometry) (7.9.8.1.85)
dr_fw (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fw (float) (7.9.8.1.2)
dr_bz (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bz (float) (7.9.8.1.2)
dr_bp (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp (float) (7.9.8.1.2)
dr_bp_plates (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.8.1.18)
dr_bp_he (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_bp_he (vecflt_type) (7.9.8.1.18)
dr_man (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_man (float) (7.9.8.1.2)
dt_sw (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_sw (float) (7.9.8.1.2)
dt_bz (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dt_bz (float) (7.9.8.1.2)
dp_bz (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dp_bz (float) (7.9.8.1.2)

top_cap_dim (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.8.1.18)
bot_cap_dim (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%hcll%hcll_bb%inboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.8.1.18)
a_fw_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_fw_ch (float) (7.9.8.1.2)
b_fw_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_fw_ch (float) (7.9.8.1.2)
td_tc_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_tc_ch (float) (7.9.8.1.2)
rd_tc_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_tc_ch (float) (7.9.8.1.2)
td_bc_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%td_bc_ch (float) (7.9.8.1.2)
rd_bc_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%rd_bc_ch (float) (7.9.8.1.2)
n_fw_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_ch (float) (7.9.8.1.2)
n_fw_circ (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_fw_circ (float) (7.9.8.1.2)
a_sg_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_sg_ch (float) (7.9.8.1.2)
b_sg_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_sg_ch (float) (7.9.8.1.2)
n_sg_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_sg_ch (float) (7.9.8.1.2)
sg_thick (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_thick (float) (7.9.8.1.2)
sg_weld (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_weld (float) (7.9.8.1.2)
sg_in_out (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%sg_in_out (float) (7.9.8.1.2)
r_sg_cp (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%r_sg_cp (float) (7.9.8.1.2)
cp_tor_gap (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_tor_gap (float) (7.9.8.1.2)
a_cp_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%a_cp_ch (float) (7.9.8.1.2)
b_cp_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%b_cp_ch (float) (7.9.8.1.2)
n_cp_ch (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_ch (float) (7.9.8.1.2)
cp_thick (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_thick (float) (7.9.8.1.2)
n_pol_bu (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_pol_bu (float) (7.9.8.1.2)
n_tor_bu (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_tor_bu (float) (7.9.8.1.2)
n_cp_bu (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%n_cp_bu (float) (7.9.8.1.2)
cp_in_out (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%cp_in_out (float) (7.9.8.1.2)
he_man_tck (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_man_tck (float) (7.9.8.1.2)
man_tck (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%man_tck (float) (7.9.8.1.2)
pbli_bptb_od (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_od (float) (7.9.8.1.2)
pbli_bptb_id (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%pbli_bptb_id (float) (7.9.8.1.2)
he_bptb_od (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_od (float) (7.9.8.1.2)
he_bptb_id (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%he_bptb_id (float) (7.9.8.1.2)
dr_max_fw (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_max_fw (float) (7.9.8.1.2)
dr_fwpl (4188)	bb_shield%hcll%hcll_bb%inboard%mod_geom%dr_fwpl (float) (7.9.8.1.2)
mod_neutr (4364)	bb_shield%hcll%hcll_bb%inboard%mod_neutr (mode_neutr) (7.9.8.1.299)
r (4402)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%r (vecflt_type) (7.9.8.1.18)
pd_rad (4402)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pd_rad (vecflt_type) (7.9.8.1.18)
lipb_coef_pd (4402)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.8.1.18)
steel_coef_pd (4402)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.8.1.18)
pow_exchange (4402)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange (power_exchange) (7.9.8.1.365)
dep_pow (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.8.1.18)
dep_fw (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.8.1.2)
dep_sg (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.8.1.2)
dep_cp (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.8.1.2)
dep_lp (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.8.1.2)
dep_man (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_man (float) (7.9.8.1.2)
dep_pl (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.8.1.2)
rec_fw (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.8.1.2)
rec_sg (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.8.1.2)
rec_cp (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.8.1.2)
pow_dens_fw (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.8.1.2)

pow_dens_bz (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.8.1.2)
pow_dens_bz10 (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.8.1.2)
pow_dens_bp (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.8.1.2)
pow_dens_man (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.8.1.2)
pow_dens_sh (4468)	bb_shield%hcll%hcll_bb%inboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.8.1.2)
mod_therm (4364)	bb_shield%hcll%hcll_bb%inboard%mod_therm (mode_therm) (7.9.8.1.301)
he_fr (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_fr (float) (7.9.8.1.2)
perc_bp_he (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%perc_bp_he (float) (7.9.8.1.2)
he_out_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%he_out_t (float) (7.9.8.1.2)
fw_he_out_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_he_out_t (float) (7.9.8.1.2)
sg_he_out_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_he_out_t (float) (7.9.8.1.2)
cp_he_out_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_he_out_t (float) (7.9.8.1.2)
fw_st_max_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%fw_st_max_t (float) (7.9.8.1.2)
sg_st_max_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%sg_st_max_t (float) (7.9.8.1.2)
cp_st_max_t (4404)	bb_shield%hcll%hcll_bb%inboard%mod_therm%cp_st_max_t (float) (7.9.8.1.2)
mod_th_hyd (4364)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd (mode_th_hyd) (7.9.8.1.300)
fw_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%fw_dp_he (float) (7.9.8.1.2)
sg_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%sg_dp_he (float) (7.9.8.1.2)
cp_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%cp_dp_he (float) (7.9.8.1.2)
man_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%man_dp_he (float) (7.9.8.1.2)
tot_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%tot_dp_he (float) (7.9.8.1.2)
bp_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%bp_dp_he (float) (7.9.8.1.2)
circ_dp_he (4403)	bb_shield%hcll%hcll_bb%inboard%mod_th_hyd%circ_dp_he (float) (7.9.8.1.2)
mod_mech (4364)	bb_shield%hcll%hcll_bb%inboard%mod_mech (mode_mech) (7.9.8.1.298)
fw_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_ts_mg (float) (7.9.8.1.2)
fw_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%fw_min_bd_mg (float) (7.9.8.1.2)
sg_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_ts_mg (float) (7.9.8.1.2)
sg_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%sg_min_bd_mg (float) (7.9.8.1.2)
cp_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_ts_mg (float) (7.9.8.1.2)
cp_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%cp_min_bd_mg (float) (7.9.8.1.2)
min_ts_mg_ac (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_ts_mg_ac (float) (7.9.8.1.2)
min_bd_mg_ac (4401)	bb_shield%hcll%hcll_bb%inboard%mod_mech%min_bd_mg_ac (float) (7.9.8.1.2)
mod_lipb (4364)	bb_shield%hcll%hcll_bb%inboard%mod_lipb (mode_lipb) (7.9.8.1.297)
lp_rec_day (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_rec_day (float) (7.9.8.1.2)
bb_lp_fr (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.8.1.18)
lp_inl_p (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%lp_inl_p (float) (7.9.8.1.2)
bu_dp_lp (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_dp_lp (float) (7.9.8.1.2)
man_dp_lp (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%man_dp_lp (float) (7.9.8.1.2)
tot_dp_lp (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%tot_dp_lp (float) (7.9.8.1.2)
bu_lp_ave_t (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_ave_t (float) (7.9.8.1.2)
bu_lp_max_t (4400)	bb_shield%hcll%hcll_bb%inboard%mod_lipb%bu_lp_max_t (float) (7.9.8.1.2)
mod_tritium (4364)	bb_shield%hcll%hcll_bb%inboard%mod_tritium (mode_tritium) (7.9.8.1.302)
t_conc_lipb (4405)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_lipb (float) (7.9.8.1.2)
t_conc_he (4405)	bb_shield%hcll%hcll_bb%inboard%mod_tritium%t_conc_he (float) (7.9.8.1.2)
outboard (4363)	bb_shield%hcll%hcll_bb%outboard (hcllbb_specs) (7.9.8.1.261)
mass (4364)	bb_shield%hcll%hcll_bb%outboard%mass (vecflt_type) (7.9.8.1.18)
dr (4364)	bb_shield%hcll%hcll_bb%outboard%dr (vecflt_type) (7.9.8.1.18)
mat (4364)	bb_shield%hcll%hcll_bb%outboard%mat (vecflt_type) (7.9.8.1.18)
composition (4364)	bb_shield%hcll%hcll_bb%outboard%composition (matflt_type) (7.9.8.1.15)
mod_geom (4364)	bb_shield%hcll%hcll_bb%outboard%mod_geom (bb_geometry) (7.9.8.1.85)
dr_fw (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fw (float) (7.9.8.1.2)
dr_bz (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bz (float) (7.9.8.1.2)
dr_bp (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp (float) (7.9.8.1.2)
dr_bp_plates (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_plates (vecflt_type) (7.9.8.1.18)
dr_bp_he (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_bp_he (vecflt_type) (7.9.8.1.18)
dr_man (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_man (float) (7.9.8.1.2)
dt_sw (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_sw (float) (7.9.8.1.2)
dt_bz (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dt_bz (float) (7.9.8.1.2)

dp_bz (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dp_bz (float) (7.9.8.1.2)
top_cap_dim (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%top_cap_dim%poloidal (vecflt_type) (7.9.8.1.18)
bot_cap_dim (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim (bb_dimension) (7.9.8.1.84)
radial (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%radial (vecflt_type) (7.9.8.1.18)
toroidal (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%toroidal (vecflt_type) (7.9.8.1.18)
poloidal (4187)	bb_shield%hcll%hcll_bb%outboard%mod_geom%bot_cap_dim%poloidal (vecflt_type) (7.9.8.1.18)
a_fw_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_fw_ch (float) (7.9.8.1.2)
b_fw_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_fw_ch (float) (7.9.8.1.2)
td_tc_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_tc_ch (float) (7.9.8.1.2)
rd_tc_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_tc_ch (float) (7.9.8.1.2)
td_bc_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%td_bc_ch (float) (7.9.8.1.2)
rd_bc_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%rd_bc_ch (float) (7.9.8.1.2)
n_fw_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_ch (float) (7.9.8.1.2)
n_fw_circ (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_fw_circ (float) (7.9.8.1.2)
a_sg_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_sg_ch (float) (7.9.8.1.2)
b_sg_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_sg_ch (float) (7.9.8.1.2)
n_sg_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_sg_ch (float) (7.9.8.1.2)
sg_thick (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_thick (float) (7.9.8.1.2)
sg_weld (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_weld (float) (7.9.8.1.2)
sg_in_out (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%sg_in_out (float) (7.9.8.1.2)
r_sg_cp (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%r_sg_cp (float) (7.9.8.1.2)
cp_tor_gap (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_tor_gap (float) (7.9.8.1.2)
a_cp_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%a_cp_ch (float) (7.9.8.1.2)
b_cp_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%b_cp_ch (float) (7.9.8.1.2)
n_cp_ch (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_ch (float) (7.9.8.1.2)
cp_thick (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_thick (float) (7.9.8.1.2)
n_pol_bu (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_pol_bu (float) (7.9.8.1.2)
n_tor_bu (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_tor_bu (float) (7.9.8.1.2)
n_cp_bu (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%n_cp_bu (float) (7.9.8.1.2)
cp_in_out (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%cp_in_out (float) (7.9.8.1.2)
he_man_tck (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_man_tck (float) (7.9.8.1.2)
man_tck (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%man_tck (float) (7.9.8.1.2)
pbli_bptb_od (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_od (float) (7.9.8.1.2)
pbli_bptb_id (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%pbli_bptb_id (float) (7.9.8.1.2)
he_bptb_od (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_od (float) (7.9.8.1.2)
he_bptb_id (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%he_bptb_id (float) (7.9.8.1.2)
dr_max_fw (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_max_fw (float) (7.9.8.1.2)
dr_fwpl (4188)	bb_shield%hcll%hcll_bb%outboard%mod_geom%dr_fwpl (float) (7.9.8.1.2)
mod_neutr (4364)	bb_shield%hcll%hcll_bb%outboard%mod_neutr (mode_neutr) (7.9.8.1.299)
r (4402)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%r (vecflt_type) (7.9.8.1.18)
pd_rad (4402)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pd_rad (vecflt_type) (7.9.8.1.18)
lipb_coef_pd (4402)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%lipb_coef_pd (vecflt_type) (7.9.8.1.18)
steel_coef_pd (4402)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%steel_coef_pd (vecflt_type) (7.9.8.1.18)
pow_exchange (4402)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange (power_exchange) (7.9.8.1.365)
dep_pow (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pow (vecflt_type) (7.9.8.1.18)
dep_fw (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_fw (float) (7.9.8.1.2)
dep_sg (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_sg (float) (7.9.8.1.2)
dep_cp (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_cp (float) (7.9.8.1.2)
dep_lp (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_lp (float) (7.9.8.1.2)
dep_man (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_man (float) (7.9.8.1.2)
dep_pl (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%dep_pl (float) (7.9.8.1.2)
rec_fw (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_fw (float) (7.9.8.1.2)
rec_sg (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_sg (float) (7.9.8.1.2)

rec_cp (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%rec_cp (float) (7.9.8.1.2)
pow_dens_fw (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_fw (float) (7.9.8.1.2)
pow_dens_bz (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz (float) (7.9.8.1.2)
pow_dens_bz10 (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bz10 (float) (7.9.8.1.2)
pow_dens_bp (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_bp (float) (7.9.8.1.2)
pow_dens_man (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_man (float) (7.9.8.1.2)
pow_dens_sh (4468)	bb_shield%hcll%hcll_bb%outboard%mod_neutr%pow_exchange%pow_dens_sh (float) (7.9.8.1.2)
mod_therm (4364)	bb_shield%hcll%hcll_bb%outboard%mod_therm (mode_therm) (7.9.8.1.301)
he_fr (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_fr (float) (7.9.8.1.2)
perc_bp_he (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%perc_bp_he (float) (7.9.8.1.2)
he_out_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%he_out_t (float) (7.9.8.1.2)
fw_he_out_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_he_out_t (float) (7.9.8.1.2)
sg_he_out_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_he_out_t (float) (7.9.8.1.2)
cp_he_out_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_he_out_t (float) (7.9.8.1.2)
fw_st_max_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%fw_st_max_t (float) (7.9.8.1.2)
sg_st_max_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%sg_st_max_t (float) (7.9.8.1.2)
cp_st_max_t (4404)	bb_shield%hcll%hcll_bb%outboard%mod_therm%cp_st_max_t (float) (7.9.8.1.2)
mod_th_hyd (4364)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd (mode_th_hyd) (7.9.8.1.300)
fw_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%fw_dp_he (float) (7.9.8.1.2)
sg_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%sg_dp_he (float) (7.9.8.1.2)
cp_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%cp_dp_he (float) (7.9.8.1.2)
man_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%man_dp_he (float) (7.9.8.1.2)
tot_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%tot_dp_he (float) (7.9.8.1.2)
bp_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%bp_dp_he (float) (7.9.8.1.2)
circ_dp_he (4403)	bb_shield%hcll%hcll_bb%outboard%mod_th_hyd%circ_dp_he (float) (7.9.8.1.2)
mod_mech (4364)	bb_shield%hcll%hcll_bb%outboard%mod_mech (mode_mech) (7.9.8.1.298)
fw_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_ts_mg (float) (7.9.8.1.2)
fw_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%fw_min_bd_mg (float) (7.9.8.1.2)
sg_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_ts_mg (float) (7.9.8.1.2)
sg_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%sg_min_bd_mg (float) (7.9.8.1.2)
cp_min_ts_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_ts_mg (float) (7.9.8.1.2)
cp_min_bd_mg (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%cp_min_bd_mg (float) (7.9.8.1.2)
min_ts_mg_ac (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_ts_mg_ac (float) (7.9.8.1.2)
min_bd_mg_ac (4401)	bb_shield%hcll%hcll_bb%outboard%mod_mech%min_bd_mg_ac (float) (7.9.8.1.2)
mod_lipb (4364)	bb_shield%hcll%hcll_bb%outboard%mod_lipb (mode_lipb) (7.9.8.1.297)
lp_rec_day (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_rec_day (float) (7.9.8.1.2)
bb_lp_fr (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bb_lp_fr (vecflt_type) (7.9.8.1.18)
lp_inl_p (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%lp_inl_p (float) (7.9.8.1.2)
bu_dp_lp (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_dp_lp (float) (7.9.8.1.2)
man_dp_lp (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%man_dp_lp (float) (7.9.8.1.2)
tot_dp_lp (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%tot_dp_lp (float) (7.9.8.1.2)
bu_lp_ave_t (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_ave_t (float) (7.9.8.1.2)
bu_lp_max_t (4400)	bb_shield%hcll%hcll_bb%outboard%mod_lipb%bu_lp_max_t (float) (7.9.8.1.2)
mod_tritium (4364)	bb_shield%hcll%hcll_bb%outboard%mod_tritium (mode_tritium) (7.9.8.1.302)
t_conc_lipb (4405)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_lipb (float) (7.9.8.1.2)
t_conc_he (4405)	bb_shield%hcll%hcll_bb%outboard%mod_tritium%t_conc_he (float) (7.9.8.1.2)
codeparam (4129)	bb_shield%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	bb_shield%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	bb_shield%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	bb_shield%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	bb_shield%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	bb_shield%codeparam%output_flag (integer) (7.9.8.1.3)
time (4129)	bb_shield%time (float) (7.9.8.1.2)

7.9.8.2.5 bolometer

datainfo (4130)	bolometer%datainfo (datainfo) (7.9.8.1.162)

dataprovider (4265)	bolometer%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	bolometer%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	bolometer%datainfo%source (string) (7.9.8.1.4)
comment (4265)	bolometer%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	bolometer%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	bolometer%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	bolometer%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	bolometer%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	bolometer%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	bolometer%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	bolometer%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	bolometer%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	bolometer%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	bolometer%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	bolometer%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	bolometer%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	bolometer%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	bolometer%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4130)	bolometer%setup (bolometer_setup) (7.9.8.1.92)
id (4195)	bolometer%setup%id (vecstring_type) (7.9.8.1.20)
los (4195)	bolometer%setup%los (setup_line) (7.9.8.1.424)
pivot_point (4527)	bolometer%setup%los%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	bolometer%setup%los%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	bolometer%setup%los%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	bolometer%setup%los%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4527)	bolometer%setup%los%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4527)	bolometer%setup%los%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4527)	bolometer%setup%los%width (vecflt_type) (7.9.8.1.18)
second_point (4527)	bolometer%setup%los%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	bolometer%setup%los%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	bolometer%setup%los%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	bolometer%setup%los%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4527)	bolometer%setup%los%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4527)	bolometer%setup%los%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4527)	bolometer%setup%los%third_point (rzphi1D) (7.9.8.1.393)
r (4496)	bolometer%setup%los%third_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	bolometer%setup%los%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	bolometer%setup%los%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4527)	bolometer%setup%los%nchordpoints (integer) (7.9.8.1.3)
etendue (4195)	bolometer%setup%etendue (vecflt_type) (7.9.8.1.18)
measure (4130)	bolometer%measure (bolometer_measure) (7.9.8.1.90)
prad (4193)	bolometer%measure%prad (exp1D) (7.9.8.1.225)
value (4328)	bolometer%measure%prad%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	bolometer%measure%prad%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	bolometer%measure%prad%relerror (vecflt_type) (7.9.8.1.18)
process (4130)	bolometer%process (bolometer_processed) (7.9.8.1.91)
prad_tot (4194)	bolometer%process%prad_tot (exp0D) (7.9.8.1.224)
value (4327)	bolometer%process%prad_tot%value (float) (7.9.8.1.2)
abserror (4327)	bolometer%process%prad_tot%abserror (float) (7.9.8.1.2)
relerror (4327)	bolometer%process%prad_tot%relerror (float) (7.9.8.1.2)
prad_core (4194)	bolometer%process%prad_core (exp0D) (7.9.8.1.224)
value (4327)	bolometer%process%prad_core%value (float) (7.9.8.1.2)
abserror (4327)	bolometer%process%prad_core%abserror (float) (7.9.8.1.2)
relerror (4327)	bolometer%process%prad_core%relerror (float) (7.9.8.1.2)
codeparam (4130)	bolometer%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	bolometer%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	bolometer%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	bolometer%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	bolometer%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	bolometer%codeparam%output_flag (integer) (7.9.8.1.3)
time (4130)	bolometer%time (float) (7.9.8.1.2)

7.9.8.2.6 bremsstrahl

datainfo (4131)	bremsstrahl%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	bremsstrahl%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	bremsstrahl%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	bremsstrahl%datainfo%source (string) (7.9.8.1.4)
comment (4265)	bremsstrahl%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	bremsstrahl%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	bremsstrahl%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	bremsstrahl%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	bremsstrahl%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	bremsstrahl%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	bremsstrahl%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	bremsstrahl%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	bremsstrahl%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	bremsstrahl%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	bremsstrahl%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	bremsstrahl%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	bremsstrahl%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	bremsstrahl%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	bremsstrahl%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4131)	bremsstrahl%setup (bremsstrahl_setup) (7.9.8.1.100)
id (4203)	bremsstrahl%setup%id (vecstring_type) (7.9.8.1.20)
los (4203)	bremsstrahl%setup%los (setup_line_exp) (7.9.8.1.425)
pivot_point (4528)	bremsstrahl%setup%los%pivot_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	bremsstrahl%setup%los%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	bremsstrahl%setup%los%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	bremsstrahl%setup%los%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4528)	bremsstrahl%setup%los%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4528)	bremsstrahl%setup%los%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4528)	bremsstrahl%setup%los%width (vecflt_type) (7.9.8.1.18)
second_point (4528)	bremsstrahl%setup%los%second_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	bremsstrahl%setup%los%second_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	bremsstrahl%setup%los%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	bremsstrahl%setup%los%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4528)	bremsstrahl%setup%los%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4528)	bremsstrahl%setup%los%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4528)	bremsstrahl%setup%los%third_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	bremsstrahl%setup%los%third_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	bremsstrahl%setup%los%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	bremsstrahl%setup%los%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4528)	bremsstrahl%setup%los%nchordpoints (integer) (7.9.8.1.3)
measure (4131)	bremsstrahl%measure (bremsstrahl_measure) (7.9.8.1.99)
zeff (4202)	bremsstrahl%measure%zeff (exp1D) (7.9.8.1.225)
value (4328)	bremsstrahl%measure%zeff%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	bremsstrahl%measure%zeff%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	bremsstrahl%measure%zeff%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4131)	bremsstrahl%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	bremsstrahl%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	bremsstrahl%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	bremsstrahl%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	bremsstrahl%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	bremsstrahl%codeparam%output_flag (integer) (7.9.8.1.3)
time (4131)	bremsstrahl%time (float) (7.9.8.1.2)

7.9.8.2.7 compositionc

datainfo (4132)	compositionc%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	compositionc%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	compositionc%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	compositionc%datainfo%source (string) (7.9.8.1.4)

comment (4265)	compositionc%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	compositionc%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	compositionc%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	compositionc%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	compositionc%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	compositionc%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	compositionc%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	compositionc%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	compositionc%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	compositionc%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	compositionc%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	compositionc%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	compositionc%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	compositionc%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	compositionc%datainfo%putinfo%rights (string) (7.9.8.1.4)
compositions (4132)	compositionc%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	compositionc%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	compositionc%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	compositionc%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	compositionc%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	compositionc%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	compositionc%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	compositionc%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	compositionc%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	compositionc%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	compositionc%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	compositionc%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	compositionc%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	compositionc%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	compositionc%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	compositionc%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	compositionc%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	compositionc%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	compositionc%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	compositionc%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	compositionc%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	compositionc%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	compositionc%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	compositionc%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	compositionc%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	compositionc%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	compositionc%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	compositionc%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	compositionc%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	compositionc%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	compositionc%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	compositionc%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	compositionc%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	compositionc%compositions%signature%description (string) (7.9.8.1.4)
codeparam (4132)	compositionc%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	compositionc%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	compositionc%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	compositionc%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	compositionc%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	compositionc%codeparam%output_flag (integer) (7.9.8.1.3)
time (4132)	compositionc%time (float) (7.9.8.1.2)

7.9.8.2.8 coredelta

datainfo (4133)	coredelta%datainfo (datainfo) (7.9.8.1.162)

dataprovider (4265)	coredelta%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coredelta%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coredelta%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coredelta%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coredelta%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coredelta%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coredelta%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coredelta%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coredelta%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coredelta%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coredelta%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coredelta%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coredelta%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coredelta%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coredelta%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coredelta%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coredelta%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coredelta%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4133)	coredelta%composition (composition) (7.9.8.1.123)
amn (4226)	coredelta%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	coredelta%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	coredelta%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	coredelta%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	coredelta%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4133)	coredelta%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coredelta%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coredelta%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coredelta%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coredelta%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coredelta%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coredelta%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coredelta%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4133)	coredelta%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coredelta%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coredelta%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coredelta%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coredelta%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coredelta%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coredelta%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coredelta%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coredelta%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coredelta%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coredelta%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coredelta%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coredelta%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coredelta%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coredelta%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coredelta%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coredelta%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coredelta%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coredelta%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coredelta%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coredelta%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coredelta%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coredelta%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coredelta%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coredelta%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	coredelta%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coredelta%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coredelta%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)

zmax (4316)	coredelta%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coredelta%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coredelta%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coredelta%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coredelta%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coredelta%compositions%signature%description (string) (7.9.8.1.4)
values (4133)	coredelta%values(:) (coredelta_values) (7.9.8.1.132)
deltaid (4235)	coredelta%values(:)%deltaid (identifier) (7.9.8.1.263)
id (4366)	coredelta%values(:)%deltaid%id (string) (7.9.8.1.4)
flag (4366)	coredelta%values(:)%deltaid%flag (integer) (7.9.8.1.3)
description (4366)	coredelta%values(:)%deltaid%description (string) (7.9.8.1.4)
rho_tor (4235)	coredelta%values(:)%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4235)	coredelta%values(:)%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4235)	coredelta%values(:)%psi (vecflt_type) (7.9.8.1.18)
volume (4235)	coredelta%values(:)%volume (vecflt_type) (7.9.8.1.18)
area (4235)	coredelta%values(:)%area (vecflt_type) (7.9.8.1.18)
delta_psi (4235)	coredelta%values(:)%delta_psi (vecflt_type) (7.9.8.1.18)
delta_te (4235)	coredelta%values(:)%delta_te (vecflt_type) (7.9.8.1.18)
delta_ti (4235)	coredelta%values(:)%delta_ti (matflt_type) (7.9.8.1.15)
delta_ne (4235)	coredelta%values(:)%delta_ne (vecflt_type) (7.9.8.1.18)
delta_ni (4235)	coredelta%values(:)%delta_ni (matflt_type) (7.9.8.1.15)
impurity (4235)	coredelta%values(:)%impurity(:) (coredelta_values_impurity) (7.9.8.1.133)
delta_tz (4236)	coredelta%values(:)%impurity(:)%delta_tz (matflt_type) (7.9.8.1.15)
delta_nz (4236)	coredelta%values(:)%impurity(:)%delta_nz (matflt_type) (7.9.8.1.15)
delta_vtor (4235)	coredelta%values(:)%delta_vtor (matflt_type) (7.9.8.1.15)
codeparam (4235)	coredelta%values(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coredelta%values(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coredelta%values(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coredelta%values(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coredelta%values(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coredelta%values(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4133)	coredelta%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coredelta%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coredelta%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coredelta%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coredelta%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coredelta%codeparam%output_flag (integer) (7.9.8.1.3)
time (4133)	coredelta%time (float) (7.9.8.1.2)

7.9.8.2.9 corefast

datainfo (4134)	corefast%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	corefast%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	corefast%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	corefast%datainfo%source (string) (7.9.8.1.4)
comment (4265)	corefast%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	corefast%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	corefast%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	corefast%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	corefast%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	corefast%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	corefast%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	corefast%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	corefast%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	corefast%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	corefast%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	corefast%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	corefast%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	corefast%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	corefast%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4134)	corefast%composition (composition) (7.9.8.1.123)

amn (4226)	corefast%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	corefast%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	corefast%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	corefast%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	corefast%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4134)	corefast%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	corefast%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	corefast%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	corefast%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	corefast%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	corefast%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	corefast%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	corefast%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4134)	corefast%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	corefast%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	corefast%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	corefast%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	corefast%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	corefast%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	corefast%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	corefast%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	corefast%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	corefast%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	corefast%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	corefast%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	corefast%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	corefast%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	corefast%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	corefast%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	corefast%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	corefast%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	corefast%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	corefast%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	corefast%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	corefast%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	corefast%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	corefast%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	corefast%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	corefast%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	corefast%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	corefast%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	corefast%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	corefast%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	corefast%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	corefast%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	corefast%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	corefast%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	corefast%compositions%signature%description (string) (7.9.8.1.4)
toroid_field (4134)	corefast%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	corefast%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	corefast%toroid_field%b0 (float) (7.9.8.1.2)
values (4134)	corefast%values(:) (corefast_values) (7.9.8.1.134)
fastid (4237)	corefast%values(:)%fastid (identifier) (7.9.8.1.263)
id (4366)	corefast%values(:)%fastid%id (string) (7.9.8.1.4)
flag (4366)	corefast%values(:)%fastid%flag (integer) (7.9.8.1.3)
description (4366)	corefast%values(:)%fastid%description (string) (7.9.8.1.4)
filter (4237)	corefast%values(:)%filter (fast_thermal_separation_filter) (7.9.8.1.228)
method (4331)	corefast%values(:)%filter%method (identifier) (7.9.8.1.263)
id (4366)	corefast%values(:)%filter%method%id (string) (7.9.8.1.4)
flag (4366)	corefast%values(:)%filter%method%flag (integer) (7.9.8.1.3)
description (4366)	corefast%values(:)%filter%method%description (string) (7.9.8.1.4)

energy_sep (4331)	corefast%values(:)%filter%energy_sep (vecflt_type) (7.9.8.1.18)
rho_tor (4237)	corefast%values(:)%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4237)	corefast%values(:)%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4237)	corefast%values(:)%psi (vecflt_type) (7.9.8.1.18)
volume (4237)	corefast%values(:)%volume (vecflt_type) (7.9.8.1.18)
area (4237)	corefast%values(:)%area (vecflt_type) (7.9.8.1.18)
j (4237)	corefast%values(:)%j (vecflt_type) (7.9.8.1.18)
sigma (4237)	corefast%values(:)%sigma (vecflt_type) (7.9.8.1.18)
ni (4237)	corefast%values(:)%ni (matflt_type) (7.9.8.1.15)
ne (4237)	corefast%values(:)%ne (vecflt_type) (7.9.8.1.18)
nz (4237)	corefast%values(:)%nz (matflt_type) (7.9.8.1.15)
pi (4237)	corefast%values(:)%pi (matflt_type) (7.9.8.1.15)
pe (4237)	corefast%values(:)%pe (vecflt_type) (7.9.8.1.18)
pz (4237)	corefast%values(:)%pz (matflt_type) (7.9.8.1.15)
pi_para (4237)	corefast%values(:)%pi_para (matflt_type) (7.9.8.1.15)
pe_para (4237)	corefast%values(:)%pe_para (vecflt_type) (7.9.8.1.18)
pz_para (4237)	corefast%values(:)%pz_para (matflt_type) (7.9.8.1.15)
ui (4237)	corefast%values(:)%ui (matflt_type) (7.9.8.1.15)
uz (4237)	corefast%values(:)%uz (matflt_type) (7.9.8.1.15)
codeparam (4237)	corefast%values(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	corefast%values(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	corefast%values(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	corefast%values(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	corefast%values(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	corefast%values(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4134)	corefast%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	corefast%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	corefast%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	corefast%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	corefast%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	corefast%codeparam%output_flag (integer) (7.9.8.1.3)
time (4134)	corefast%time (float) (7.9.8.1.2)

7.9.8.2.10 coreimpur

datainfo (4135)	coreimpur%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	coreimpur%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coreimpur%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coreimpur%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coreimpur%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coreimpur%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coreimpur%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coreimpur%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coreimpur%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coreimpur%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coreimpur%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coreimpur%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coreimpur%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coreimpur%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coreimpur%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coreimpur%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coreimpur%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coreimpur%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coreimpur%datainfo%putinfo%rights (string) (7.9.8.1.4)
rho_tor_norm (4135)	coreimpur%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4135)	coreimpur%rho_tor (vecflt_type) (7.9.8.1.18)
psi (4135)	coreimpur%psi (vecflt_type) (7.9.8.1.18)
volume (4135)	coreimpur%volume (vecflt_type) (7.9.8.1.18)
area (4135)	coreimpur%area (vecflt_type) (7.9.8.1.18)
source (4135)	coreimpur%source (vecstring_type) (7.9.8.1.20)
flag (4135)	coreimpur%flag (vecint_type) (7.9.8.1.19)

desc_impur (4135)	coreimpur%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coreimpur%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coreimpur%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coreimpur%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coreimpur%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coreimpur%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coreimpur%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coreimpur%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4135)	coreimpur%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coreimpur%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coreimpur%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coreimpur%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coreimpur%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coreimpur%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coreimpur%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coreimpur%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coreimpur%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coreimpur%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coreimpur%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coreimpur%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coreimpur%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coreimpur%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coreimpur%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coreimpur%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coreimpur%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coreimpur%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coreimpur%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coreimpur%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coreimpur%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coreimpur%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coreimpur%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coreimpur%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coreimpur%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	coreimpur%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coreimpur%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coreimpur%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	coreimpur%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coreimpur%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coreimpur%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coreimpur%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coreimpur%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coreimpur%compositions%signature%description (string) (7.9.8.1.4)
atomic_data (4135)	coreimpur%atomic_data (vecstring_type) (7.9.8.1.20)
impurity (4135)	coreimpur%impurity(:) (impurity_type) (7.9.8.1.266)
z (4369)	coreimpur%impurity(:)%z (matflt_type) (7.9.8.1.15)
zsq (4369)	coreimpur%impurity(:)%zsq (matflt_type) (7.9.8.1.15)
nz (4369)	coreimpur%impurity(:)%nz (matflt_type) (7.9.8.1.15)
tz (4369)	coreimpur%impurity(:)%tz (matflt_type) (7.9.8.1.15)
source_term (4369)	coreimpur%impurity(:)%source_term (sourceimp) (7.9.8.1.436)
value (4539)	coreimpur%impurity(:)%source_term%value (matflt_type) (7.9.8.1.15)
integral (4539)	coreimpur%impurity(:)%source_term%integral (matflt_type) (7.9.8.1.15)
source (4539)	coreimpur%impurity(:)%source_term%source (vecstring_type) (7.9.8.1.20)
boundary (4369)	coreimpur%impurity(:)%boundary (boundaryimp) (7.9.8.1.96)
value (4199)	coreimpur%impurity(:)%boundary%value (matflt_type) (7.9.8.1.15)
source (4199)	coreimpur%impurity(:)%boundary%source (string) (7.9.8.1.4)
type (4199)	coreimpur%impurity(:)%boundary%type (vecint_type) (7.9.8.1.19)
rho (4199)	coreimpur%impurity(:)%boundary%rho (vecflt_type) (7.9.8.1.18)
codeparam (4199)	coreimpur%impurity(:)%boundary%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreimpur%impurity(:)%boundary%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreimpur%impurity(:)%boundary%codeparam%codeversion (string) (7.9.8.1.4)

parameters (4208)	coreimpur%impurity(:)%boundary%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreimpur%impurity(:)%boundary%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreimpur%impurity(:)%boundary%codeparam%output_flag (integer) (7.9.8.1.3)
transp_coef (4369)	coreimpur%impurity(:)%transp_coef (coretransimp) (7.9.8.1.155)
diff (4258)	coreimpur%impurity(:)%transp_coef%diff (matflt_type) (7.9.8.1.15)
vconv (4258)	coreimpur%impurity(:)%transp_coef%vconv (matflt_type) (7.9.8.1.15)
source (4258)	coreimpur%impurity(:)%transp_coef%source (vecstring_type) (7.9.8.1.20)
flux (4369)	coreimpur%impurity(:)%flux (fluximp) (7.9.8.1.234)
flux_dv (4337)	coreimpur%impurity(:)%flux%flux_dv (matflt_type) (7.9.8.1.15)
flux_interp (4337)	coreimpur%impurity(:)%flux%flux_interp (matflt_type) (7.9.8.1.15)
time_deriv (4369)	coreimpur%impurity(:)%time_deriv (matflt_type) (7.9.8.1.15)
diagnostic (4369)	coreimpur%impurity(:)%diagnostic (coreimpurediag_type) (7.9.8.1.146)
radiation (4249)	coreimpur%impurity(:)%diagnostic%radiation (coreimpurediag_radiation) (7.9.8.1.143)
line_rad (4246)	coreimpur%impurity(:)%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.8.1.15)
brem_radrec (4246)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.8.1.15)
sum (4246)	coreimpur%impurity(:)%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%radiation%sum%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%radiation%sum%integral (matflt_type) (7.9.8.1.15)
energy (4249)	coreimpur%impurity(:)%diagnostic%energy (coreimpurediag_energy) (7.9.8.1.142)
ionization (4245)	coreimpur%impurity(:)%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%energy%ionization%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%energy%ionization%integral (matflt_type) (7.9.8.1.15)
recombin (4245)	coreimpur%impurity(:)%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%energy%recombin%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%energy%recombin%integral (matflt_type) (7.9.8.1.15)
sum (4245)	coreimpur%impurity(:)%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%impurity(:)%diagnostic%energy%sum%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%impurity(:)%diagnostic%energy%sum%integral (matflt_type) (7.9.8.1.15)
diagnostic (4135)	coreimpur%diagnostic (coreimpurediag_type) (7.9.8.1.146)
radiation (4249)	coreimpur%diagnostic%radiation (coreimpurediag_radiation) (7.9.8.1.143)
line_rad (4246)	coreimpur%diagnostic%radiation%line_rad (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%radiation%line_rad%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%radiation%line_rad%integral (matflt_type) (7.9.8.1.15)
brem_radrec (4246)	coreimpur%diagnostic%radiation%brem_radrec (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%radiation%brem_radrec%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%radiation%brem_radrec%integral (matflt_type) (7.9.8.1.15)
sum (4246)	coreimpur%diagnostic%radiation%sum (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%radiation%sum%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%radiation%sum%integral (matflt_type) (7.9.8.1.15)
energy (4249)	coreimpur%diagnostic%energy (coreimpurediag_energy) (7.9.8.1.142)
ionization (4245)	coreimpur%diagnostic%energy%ionization (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%energy%ionization%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%energy%ionization%integral (matflt_type) (7.9.8.1.15)
recombin (4245)	coreimpur%diagnostic%energy%recombin (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%energy%recombin%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%energy%recombin%integral (matflt_type) (7.9.8.1.15)
sum (4245)	coreimpur%diagnostic%energy%sum (coreimpurediagprof_type) (7.9.8.1.147)
profile (4250)	coreimpur%diagnostic%energy%sum%profile (matflt_type) (7.9.8.1.15)
integral (4250)	coreimpur%diagnostic%energy%sum%integral (matflt_type) (7.9.8.1.15)
diagnosticsum (4135)	coreimpur%diagnosticsum (coreimpurediag_sum) (7.9.8.1.144)
radiation (4247)	coreimpur%diagnosticsum%radiation (coreimpurdiag_sum_radiation) (7.9.8.1.141)
line_rad (4244)	coreimpur%diagnosticsum%radiation%line_rad (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%radiation%line_rad%profile (vecflt_type) (7.9.8.1.18)

integral (4251)	coreimpur%diagnosticsum%radiation%line_rad%integral (vecflt_type) (7.9.8.1.18)
brem_radrec (4244)	coreimpur%diagnosticsum%radiation%brem_radrec (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%radiation%brem_radrec%profile (vecflt_type) (7.9.8.1.18)
integral (4251)	coreimpur%diagnosticsum%radiation%brem_radrec%integral (vecflt_type) (7.9.8.1.18)
sum (4244)	coreimpur%diagnosticsum%radiation%sum (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%radiation%sum%profile (vecflt_type) (7.9.8.1.18)
integral (4251)	coreimpur%diagnosticsum%radiation%sum%integral (vecflt_type) (7.9.8.1.18)
energy (4247)	coreimpur%diagnosticsum%energy (coreimpurediag_sum_energy) (7.9.8.1.145)
ionization (4248)	coreimpur%diagnosticsum%energy%ionization (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%energy%ionization%profile (vecflt_type) (7.9.8.1.18)
integral (4251)	coreimpur%diagnosticsum%energy%ionization%integral (vecflt_type) (7.9.8.1.18)
recombin (4248)	coreimpur%diagnosticsum%energy%recombin (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%energy%recombin%profile (vecflt_type) (7.9.8.1.18)
integral (4251)	coreimpur%diagnosticsum%energy%recombin%integral (vecflt_type) (7.9.8.1.18)
sum (4248)	coreimpur%diagnosticsum%energy%sum (coreimpurediagsum_type) (7.9.8.1.148)
profile (4251)	coreimpur%diagnosticsum%energy%sum%profile (vecflt_type) (7.9.8.1.18)
integral (4251)	coreimpur%diagnosticsum%energy%sum%integral (vecflt_type) (7.9.8.1.18)
codeparam (4135)	coreimpur%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreimpur%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreimpur%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreimpur%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreimpur%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreimpur%codeparam%output_flag (integer) (7.9.8.1.3)
time (4135)	coreimpur%time (float) (7.9.8.1.2)

7.9.8.2.11 coreneutrals

datainfo (4136)	coreneutrals%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	coreneutrals%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coreneutrals%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coreneutrals%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coreneutrals%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coreneutrals%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coreneutrals%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coreneutrals%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coreneutrals%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coreneutrals%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coreneutrals%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coreneutrals%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coreneutrals%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coreneutrals%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coreneutrals%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coreneutrals%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coreneutrals%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coreneutrals%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coreneutrals%datainfo%putinfo%rights (string) (7.9.8.1.4)
rho_tor (4136)	coreneutrals%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4136)	coreneutrals%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4136)	coreneutrals%psi (vecflt_type) (7.9.8.1.18)
volume (4136)	coreneutrals%volume (vecflt_type) (7.9.8.1.18)
area (4136)	coreneutrals%area (vecflt_type) (7.9.8.1.18)
neutcompo (4136)	coreneutrals%neutcompo (composition_neutrals) (7.9.8.1.124)
atomlist (4227)	coreneutrals%neutcompo%atomlist(:) (coreneutrals_atomlist) (7.9.8.1.149)
amn (4252)	coreneutrals%neutcompo%atomlist(:)%amn (float) (7.9.8.1.2)
zn (4252)	coreneutrals%neutcompo%atomlist(:)%zn (float) (7.9.8.1.2)
ionimptype (4252)	coreneutrals%neutcompo%atomlist(:)%ionimptype (identifier) (7.9.8.1.263)
id (4366)	coreneutrals%neutcompo%atomlist(:)%ionimptype%id (string) (7.9.8.1.4)
flag (4366)	coreneutrals%neutcompo%atomlist(:)%ionimptype%flag (integer) (7.9.8.1.3)
description (4366)	coreneutrals%neutcompo%atomlist(:)%ionimptype%description (string) (7.9.8.1.4)
ionimpindex (4252)	coreneutrals%neutcompo%atomlist(:)%ionimpindex (integer) (7.9.8.1.3)
neutral (4227)	coreneutrals%neutcompo%neutral(:) (composition_neutralscomp) (7.9.8.1.126)

neutcomp (4229)	coreneutrals%neutcompo%neutral(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coreneutrals%neutcompo%neutral(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coreneutrals%neutcompo%neutral(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coreneutrals%neutcompo%neutral(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coreneutrals%neutcompo%neutral(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coreneutrals%neutcompo%neutral(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coreneutrals%neutcompo%neutral(:)%label (string) (7.9.8.1.4)
composition (4136)	coreneutrals%composition (composition) (7.9.8.1.123)
amn (4226)	coreneutrals%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	coreneutrals%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	coreneutrals%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	coreneutrals%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	coreneutrals%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4136)	coreneutrals%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coreneutrals%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coreneutrals%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coreneutrals%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coreneutrals%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coreneutrals%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coreneutrals%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coreneutrals%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4136)	coreneutrals%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coreneutrals%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coreneutrals%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coreneutrals%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coreneutrals%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coreneutrals%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coreneutrals%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coreneutrals%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coreneutrals%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coreneutrals%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coreneutrals%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coreneutrals%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coreneutrals%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coreneutrals%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coreneutrals%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coreneutrals%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coreneutrals%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coreneutrals%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coreneutrals%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coreneutrals%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coreneutrals%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coreneutrals%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coreneutrals%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coreneutrals%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	coreneutrals%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coreneutrals%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coreneutrals%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	coreneutrals%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coreneutrals%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coreneutrals%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coreneutrals%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coreneutrals%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coreneutrals%compositions%signature%description (string) (7.9.8.1.4)
profiles (4136)	coreneutrals%profiles(:) (neutral_complex_type) (7.9.8.1.318)
neutraltype (4421)	coreneutrals%profiles(:)%neutraltype(:) (coreneutrals_neutraltype) (7.9.8.1.150)
n0 (4253)	coreneutrals%profiles(:)%neutraltype(:)%n0 (corefieldneutral) (7.9.8.1.137)

value (4240)	coreneutrals%profiles(:)%neutraltype(:)%n0%value (vecflt_type) (7.9.8.1.18)
flux (4240)	coreneutrals%profiles(:)%neutraltype(:)%n0%flux (vecflt_type) (7.9.8.1.18)
boundary (4240)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary (boundary_neutrals) (7.9.8.1.94)
value (4197)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%value (vecflt_type) (7.9.8.1.18)
type (4197)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%type (integer) (7.9.8.1.3)
rho_tor (4197)	coreneutrals%profiles(:)%neutraltype(:)%n0%boundary%rho_tor (float) (7.9.8.1.2)
t0 (4253)	coreneutrals%profiles(:)%neutraltype(:)%t0 (corefieldneutrale) (7.9.8.1.138)
value (4241)	coreneutrals%profiles(:)%neutraltype(:)%t0%value (vecflt_type) (7.9.8.1.18)
flux (4241)	coreneutrals%profiles(:)%neutraltype(:)%t0%flux (vecflt_type) (7.9.8.1.18)
boundary (4241)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary (boundary_neutrals) (7.9.8.1.94)
value (4197)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%value (vecflt_type) (7.9.8.1.18)
type (4197)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%type (integer) (7.9.8.1.3)
rho_tor (4197)	coreneutrals%profiles(:)%neutraltype(:)%t0%boundary%rho_tor (float) (7.9.8.1.2)
v0 (4253)	coreneutrals%profiles(:)%neutraltype(:)%v0 (corefieldneutralv0) (7.9.8.1.140)
toroidal (4243)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal (corefieldneutralv) (7.9.8.1.139)
value (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%value (vecflt_type) (7.9.8.1.18)
boundary (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary (boundary_neutrals) (7.9.8.1.94)
value (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%value (vecflt_type) (7.9.8.1.18)
type (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%type (integer) (7.9.8.1.3)
rho_tor (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%toroidal%boundary%rho_tor (float) (7.9.8.1.2)
poloidal (4243)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal (corefieldneutralv) (7.9.8.1.139)
value (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%value (vecflt_type) (7.9.8.1.18)
boundary (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary (boundary_neutrals) (7.9.8.1.94)
value (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%value (vecflt_type) (7.9.8.1.18)
type (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%type (integer) (7.9.8.1.3)
rho_tor (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%poloidal%boundary%rho_tor (float) (7.9.8.1.2)
radial (4243)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial (corefieldneutralv) (7.9.8.1.139)
value (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%value (vecflt_type) (7.9.8.1.18)
boundary (4242)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary (boundary_neutrals) (7.9.8.1.94)
value (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%value (vecflt_type) (7.9.8.1.18)
type (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%type (integer) (7.9.8.1.3)
rho_tor (4197)	coreneutrals%profiles(:)%neutraltype(:)%v0%radial%boundary%rho_tor (float) (7.9.8.1.2)
prad0 (4421)	coreneutrals%profiles(:)%prad0 (vecflt_type) (7.9.8.1.18)
ioncoeff (4136)	coreneutrals%ioncoeff(:) (coefficients_neutrals) (7.9.8.1.106)
recycling (4209)	coreneutrals%ioncoeff(:)%recycling (recycling_neutrals) (7.9.8.1.375)
particles (4478)	coreneutrals%ioncoeff(:)%recycling%particles (vecflt_type) (7.9.8.1.18)
energy (4478)	coreneutrals%ioncoeff(:)%recycling%energy (vecflt_type) (7.9.8.1.18)
sputtering (4209)	coreneutrals%ioncoeff(:)%sputtering (sputtering_neutrals) (7.9.8.1.443)
physical (4546)	coreneutrals%ioncoeff(:)%sputtering%physical (vecflt_type) (7.9.8.1.18)
chemical (4546)	coreneutrals%ioncoeff(:)%sputtering%chemical (vecflt_type) (7.9.8.1.18)
impcoeff (4136)	coreneutrals%impcoeff(:) (impcoeff) (7.9.8.1.264)
chargestate (4367)	coreneutrals%impcoeff(:)%chargestate(:) (coefficients_neutrals) (7.9.8.1.106)
recycling (4209)	coreneutrals%impcoeff(:)%chargestate(:)%recycling (recycling_neutrals) (7.9.8.1.375)
particles (4478)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%particles (vecflt_type) (7.9.8.1.18)
energy (4478)	coreneutrals%impcoeff(:)%chargestate(:)%recycling%energy (vecflt_type) (7.9.8.1.18)
sputtering (4209)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering (sputtering_neutrals) (7.9.8.1.443)
physical (4546)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%physical (vecflt_type) (7.9.8.1.18)
chemical (4546)	coreneutrals%impcoeff(:)%chargestate(:)%sputtering%chemical (vecflt_type) (7.9.8.1.18)
codeparam (4136)	coreneutrals%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreneutrals%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreneutrals%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreneutrals%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreneutrals%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreneutrals%codeparam%output_flag (integer) (7.9.8.1.3)
time (4136)	coreneutrals%time (float) (7.9.8.1.2)

7.9.8.2.12 coreprof

datainfo (4137)	coreprof%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	coreprof%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coreprof%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coreprof%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coreprof%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coreprof%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coreprof%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coreprof%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coreprof%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coreprof%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coreprof%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coreprof%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coreprof%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coreprof%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coreprof%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coreprof%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coreprof%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coreprof%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coreprof%datainfo%putinfo%rights (string) (7.9.8.1.4)
rho_tor_norm (4137)	coreprof%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4137)	coreprof%rho_tor (vecflt_type) (7.9.8.1.18)
drho_dt (4137)	coreprof%drho_dt (vecflt_type) (7.9.8.1.18)
toroid_field (4137)	coreprof%toroid_field (toroid_field) (7.9.8.1.487)
b0 (4590)	coreprof%toroid_field%b0 (float) (7.9.8.1.2)
b0prime (4590)	coreprof%toroid_field%b0prime (float) (7.9.8.1.2)
r0 (4590)	coreprof%toroid_field%r0 (float) (7.9.8.1.2)
time (4590)	coreprof%toroid_field%time (float) (7.9.8.1.2)
composition (4137)	coreprof%composition (composition) (7.9.8.1.123)
amn (4226)	coreprof%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	coreprof%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	coreprof%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	coreprof%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	coreprof%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4137)	coreprof%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coreprof%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coreprof%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coreprof%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coreprof%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coreprof%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coreprof%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coreprof%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4137)	coreprof%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coreprof%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coreprof%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coreprof%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coreprof%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coreprof%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coreprof%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coreprof%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coreprof%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coreprof%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coreprof%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coreprof%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coreprof%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coreprof%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coreprof%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coreprof%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coreprof%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coreprof%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coreprof%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)

multiplicity (4228)	coreprof%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coreprof%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coreprof%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coreprof%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coreprof%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coreprof%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	coreprof%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coreprof%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coreprof%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	coreprof%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coreprof%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coreprof%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coreprof%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coreprof%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coreprof%compositions%signature%description (string) (7.9.8.1.4)
psi (4137)	coreprof%psi (psi) (7.9.8.1.369)
value (4472)	coreprof%psi%value (vecflt_type) (7.9.8.1.18)
ddrho (4472)	coreprof%psi%ddrho (vecflt_type) (7.9.8.1.18)
d2drho2 (4472)	coreprof%psi%d2drho2 (vecflt_type) (7.9.8.1.18)
ddt_rhotorn (4472)	coreprof%psi%ddt_rhotorn (vecflt_type) (7.9.8.1.18)
ddt_phi (4472)	coreprof%psi%ddt_phi (vecflt_type) (7.9.8.1.18)
source (4472)	coreprof%psi%source (string) (7.9.8.1.4)
flag (4472)	coreprof%psi%flag (integer) (7.9.8.1.3)
boundary (4472)	coreprof%psi%boundary (boundary) (7.9.8.1.93)
value (4196)	coreprof%psi%boundary%value (vecflt_type) (7.9.8.1.18)
source (4196)	coreprof%psi%boundary%source (string) (7.9.8.1.4)
type (4196)	coreprof%psi%boundary%type (integer) (7.9.8.1.3)
rho (4196)	coreprof%psi%boundary%rho (float) (7.9.8.1.2)
codeparam (4196)	coreprof%psi%boundary%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%psi%boundary%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%psi%boundary%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%psi%boundary%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%psi%boundary%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%psi%boundary%codeparam%output_flag (integer) (7.9.8.1.3)
jni (4472)	coreprof%psi%jni (jni) (7.9.8.1.270)
value (4373)	coreprof%psi%jni%value (vecflt_type) (7.9.8.1.18)
integral (4373)	coreprof%psi%jni%integral (vecflt_type) (7.9.8.1.18)
source (4373)	coreprof%psi%jni%source (string) (7.9.8.1.4)
sigma_par (4472)	coreprof%psi%sigma_par (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%psi%sigma_par%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%psi%sigma_par%source (string) (7.9.8.1.4)
codeparam (4472)	coreprof%psi%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%psi%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%psi%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%psi%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%psi%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%psi%codeparam%output_flag (integer) (7.9.8.1.3)
te (4137)	coreprof%te (corefield) (7.9.8.1.135)
value (4238)	coreprof%te%value (vecflt_type) (7.9.8.1.18)
ddrho (4238)	coreprof%te%ddrho (vecflt_type) (7.9.8.1.18)
d2drho2 (4238)	coreprof%te%d2drho2 (vecflt_type) (7.9.8.1.18)
ddt (4238)	coreprof%te%ddt (vecflt_type) (7.9.8.1.18)
source (4238)	coreprof%te%source (string) (7.9.8.1.4)
flag (4238)	coreprof%te%flag (integer) (7.9.8.1.3)
boundary (4238)	coreprof%te%boundary (boundaryel) (7.9.8.1.95)
value (4198)	coreprof%te%boundary%value (vecflt_type) (7.9.8.1.18)
source (4198)	coreprof%te%boundary%source (string) (7.9.8.1.4)
type (4198)	coreprof%te%boundary%type (integer) (7.9.8.1.3)
rho_tor (4198)	coreprof%te%boundary%rho_tor (float) (7.9.8.1.2)
source_term (4238)	coreprof%te%source_term (sourceel) (7.9.8.1.435)
value (4538)	coreprof%te%source_term%value (vecflt_type) (7.9.8.1.18)

integral (4538)	coreprof%te%source_term%integral (vecflt_type) (7.9.8.1.18)
source (4538)	coreprof%te%source_term%source (string) (7.9.8.1.4)
transp_coef (4238)	coreprof%te%transp_coef (coretransel) (7.9.8.1.154)
diff (4257)	coreprof%te%transp_coef%diff (vecflt_type) (7.9.8.1.18)
vconv (4257)	coreprof%te%transp_coef%vconv (vecflt_type) (7.9.8.1.18)
source (4257)	coreprof%te%transp_coef%source (string) (7.9.8.1.4)
flux (4238)	coreprof%te%flux (fluxel) (7.9.8.1.233)
flux_dv (4336)	coreprof%te%flux%flux_dv (vecflt_type) (7.9.8.1.18)
flux_interp (4336)	coreprof%te%flux%flux_interp (vecflt_type) (7.9.8.1.18)
flux_dv_surf (4238)	coreprof%te%flux_dv_surf (vecflt_type) (7.9.8.1.18)
time_deriv (4238)	coreprof%te%time_deriv (vecflt_type) (7.9.8.1.18)
codeparam (4238)	coreprof%te%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%te%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%te%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%te%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%te%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%te%codeparam%output_flag (integer) (7.9.8.1.3)
ti (4137)	coreprof%ti (corefieldion) (7.9.8.1.136)
value (4239)	coreprof%ti%value (matflt_type) (7.9.8.1.15)
ddrho (4239)	coreprof%ti%ddrho (matflt_type) (7.9.8.1.15)
d2drho2 (4239)	coreprof%ti%d2drho2 (matflt_type) (7.9.8.1.15)
ddt (4239)	coreprof%ti%ddt (matflt_type) (7.9.8.1.15)
source (4239)	coreprof%ti%source (vecstring_type) (7.9.8.1.20)
flag (4239)	coreprof%ti%flag (vecint_type) (7.9.8.1.19)
boundary (4239)	coreprof%ti%boundary (boundaryion) (7.9.8.1.97)
value (4200)	coreprof%ti%boundary%value (matflt_type) (7.9.8.1.15)
source (4200)	coreprof%ti%boundary%source (vecstring_type) (7.9.8.1.20)
type (4200)	coreprof%ti%boundary%type (vecint_type) (7.9.8.1.19)
rho_tor (4200)	coreprof%ti%boundary%rho_tor (vecflt_type) (7.9.8.1.18)
source_term (4239)	coreprof%ti%source_term (sourceion) (7.9.8.1.437)
value (4540)	coreprof%ti%source_term%value (matflt_type) (7.9.8.1.15)
integral (4540)	coreprof%ti%source_term%integral (matflt_type) (7.9.8.1.15)
source (4540)	coreprof%ti%source_term%source (vecstring_type) (7.9.8.1.20)
transp_coef (4239)	coreprof%ti%transp_coef (coretransion) (7.9.8.1.156)
diff (4259)	coreprof%ti%transp_coef%diff (matflt_type) (7.9.8.1.15)
vconv (4259)	coreprof%ti%transp_coef%vconv (matflt_type) (7.9.8.1.15)
source (4259)	coreprof%ti%transp_coef%source (vecstring_type) (7.9.8.1.20)
flux (4239)	coreprof%ti%flux (fluxion) (7.9.8.1.235)
flux_dv (4338)	coreprof%ti%flux%flux_dv (matflt_type) (7.9.8.1.15)
flux_interp (4338)	coreprof%ti%flux%flux_interp (matflt_type) (7.9.8.1.15)
flux_dv_surf (4239)	coreprof%ti%flux_dv_surf (matflt_type) (7.9.8.1.15)
time_deriv (4239)	coreprof%ti%time_deriv (matflt_type) (7.9.8.1.15)
codeparam (4239)	coreprof%ti%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%ti%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%ti%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%ti%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%ti%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%ti%codeparam%output_flag (integer) (7.9.8.1.3)
ne (4137)	coreprof%ne (corefield) (7.9.8.1.135)
value (4238)	coreprof%ne%value (vecflt_type) (7.9.8.1.18)
ddrho (4238)	coreprof%ne%ddrho (vecflt_type) (7.9.8.1.18)
d2drho2 (4238)	coreprof%ne%d2drho2 (vecflt_type) (7.9.8.1.18)
ddt (4238)	coreprof%ne%ddt (vecflt_type) (7.9.8.1.18)
source (4238)	coreprof%ne%source (string) (7.9.8.1.4)
flag (4238)	coreprof%ne%flag (integer) (7.9.8.1.3)
boundary (4238)	coreprof%ne%boundary (boundaryel) (7.9.8.1.95)
value (4198)	coreprof%ne%boundary%value (vecflt_type) (7.9.8.1.18)
source (4198)	coreprof%ne%boundary%source (string) (7.9.8.1.4)
type (4198)	coreprof%ne%boundary%type (integer) (7.9.8.1.3)
rho_tor (4198)	coreprof%ne%boundary%rho_tor (float) (7.9.8.1.2)
source_term (4238)	coreprof%ne%source_term (sourceel) (7.9.8.1.435)

value (4538)	coreprof%ne%source_term%value (vecflt_type) (7.9.8.1.18)
integral (4538)	coreprof%ne%source_term%integral (vecflt_type) (7.9.8.1.18)
source (4538)	coreprof%ne%source_term%source (string) (7.9.8.1.4)
transp_coef (4238)	coreprof%ne%transp_coef (coretransel) (7.9.8.1.154)
diff (4257)	coreprof%ne%transp_coef%diff (vecflt_type) (7.9.8.1.18)
vconv (4257)	coreprof%ne%transp_coef%vconv (vecflt_type) (7.9.8.1.18)
source (4257)	coreprof%ne%transp_coef%source (string) (7.9.8.1.4)
flux (4238)	coreprof%ne%flux (fluxel) (7.9.8.1.233)
flux_dv (4336)	coreprof%ne%flux%flux_dv (vecflt_type) (7.9.8.1.18)
flux_interp (4336)	coreprof%ne%flux%flux_interp (vecflt_type) (7.9.8.1.18)
flux_dv_surf (4238)	coreprof%ne%flux_dv_surf (vecflt_type) (7.9.8.1.18)
time_deriv (4238)	coreprof%ne%time_deriv (vecflt_type) (7.9.8.1.18)
codeparam (4238)	coreprof%ne%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%ne%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%ne%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%ne%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%ne%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%ne%codeparam%output_flag (integer) (7.9.8.1.3)
ni (4137)	coreprof%ni (corefieldion) (7.9.8.1.136)
value (4239)	coreprof%ni%value (matflt_type) (7.9.8.1.15)
ddrho (4239)	coreprof%ni%ddrho (matflt_type) (7.9.8.1.15)
d2drho2 (4239)	coreprof%ni%d2drho2 (matflt_type) (7.9.8.1.15)
ddt (4239)	coreprof%ni%ddt (matflt_type) (7.9.8.1.15)
source (4239)	coreprof%ni%source (vecstring_type) (7.9.8.1.20)
flag (4239)	coreprof%ni%flag (vecint_type) (7.9.8.1.19)
boundary (4239)	coreprof%ni%boundary (boundaryion) (7.9.8.1.97)
value (4200)	coreprof%ni%boundary%value (matflt_type) (7.9.8.1.15)
source (4200)	coreprof%ni%boundary%source (vecstring_type) (7.9.8.1.20)
type (4200)	coreprof%ni%boundary%type (vecint_type) (7.9.8.1.19)
rho_tor (4200)	coreprof%ni%boundary%rho_tor (vecflt_type) (7.9.8.1.18)
source_term (4239)	coreprof%ni%source_term (sourceion) (7.9.8.1.437)
value (4540)	coreprof%ni%source_term%value (matflt_type) (7.9.8.1.15)
integral (4540)	coreprof%ni%source_term%integral (matflt_type) (7.9.8.1.15)
source (4540)	coreprof%ni%source_term%source (vecstring_type) (7.9.8.1.20)
transp_coef (4239)	coreprof%ni%transp_coef (coretransion) (7.9.8.1.156)
diff (4259)	coreprof%ni%transp_coef%diff (matflt_type) (7.9.8.1.15)
vconv (4259)	coreprof%ni%transp_coef%vconv (matflt_type) (7.9.8.1.15)
source (4259)	coreprof%ni%transp_coef%source (vecstring_type) (7.9.8.1.20)
flux (4239)	coreprof%ni%flux (fluxion) (7.9.8.1.235)
flux_dv (4338)	coreprof%ni%flux%flux_dv (matflt_type) (7.9.8.1.15)
flux_interp (4338)	coreprof%ni%flux%flux_interp (matflt_type) (7.9.8.1.15)
flux_dv_surf (4239)	coreprof%ni%flux_dv_surf (matflt_type) (7.9.8.1.15)
time_deriv (4239)	coreprof%ni%time_deriv (matflt_type) (7.9.8.1.15)
codeparam (4239)	coreprof%ni%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%ni%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%ni%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%ni%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%ni%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%ni%codeparam%output_flag (integer) (7.9.8.1.3)
vtor (4137)	coreprof%vtor (corefieldion) (7.9.8.1.136)
value (4239)	coreprof%vtor%value (matflt_type) (7.9.8.1.15)
ddrho (4239)	coreprof%vtor%ddrho (matflt_type) (7.9.8.1.15)
d2drho2 (4239)	coreprof%vtor%d2drho2 (matflt_type) (7.9.8.1.15)
ddt (4239)	coreprof%vtor%ddt (matflt_type) (7.9.8.1.15)
source (4239)	coreprof%vtor%source (vecstring_type) (7.9.8.1.20)
flag (4239)	coreprof%vtor%flag (vecint_type) (7.9.8.1.19)
boundary (4239)	coreprof%vtor%boundary (boundaryion) (7.9.8.1.97)
value (4200)	coreprof%vtor%boundary%value (matflt_type) (7.9.8.1.15)
source (4200)	coreprof%vtor%boundary%source (vecstring_type) (7.9.8.1.20)
type (4200)	coreprof%vtor%boundary%type (vecint_type) (7.9.8.1.19)
rho_tor (4200)	coreprof%vtor%boundary%rho_tor (vecflt_type) (7.9.8.1.18)

source_term (4239)	coreprof%vtor%source_term (sourceion) (7.9.8.1.437)
value (4540)	coreprof%vtor%source_term%value (matflt_type) (7.9.8.1.15)
integral (4540)	coreprof%vtor%source_term%integral (matflt_type) (7.9.8.1.15)
source (4540)	coreprof%vtor%source_term%source (vecstring_type) (7.9.8.1.20)
transp_coef (4239)	coreprof%vtor%transp_coef (coretransion) (7.9.8.1.156)
diff (4259)	coreprof%vtor%transp_coef%diff (matflt_type) (7.9.8.1.15)
vconv (4259)	coreprof%vtor%transp_coef%vconv (matflt_type) (7.9.8.1.15)
source (4259)	coreprof%vtor%transp_coef%source (vecstring_type) (7.9.8.1.20)
flux (4239)	coreprof%vtor%flux (fluxion) (7.9.8.1.235)
flux_dv (4338)	coreprof%vtor%flux%flux_dv (matflt_type) (7.9.8.1.15)
flux_interp (4338)	coreprof%vtor%flux%flux_interp (matflt_type) (7.9.8.1.15)
flux_dv_surf (4239)	coreprof%vtor%flux_dv_surf (matflt_type) (7.9.8.1.15)
time_deriv (4239)	coreprof%vtor%time_deriv (matflt_type) (7.9.8.1.15)
codeparam (4239)	coreprof%vtor%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%vtor%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%vtor%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%vtor%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%vtor%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%vtor%codeparam%output_flag (integer) (7.9.8.1.3)
profiles1d (4137)	coreprof%profiles1d (profiles1d) (7.9.8.1.367)
pe (4470)	coreprof%profiles1d%pe (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%pe%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%pe%source (string) (7.9.8.1.4)
dpedt (4470)	coreprof%profiles1d%dpedt (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%dpedt%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%dpedt%source (string) (7.9.8.1.4)
pi (4470)	coreprof%profiles1d%pi (coreprofion) (7.9.8.1.152)
value (4255)	coreprof%profiles1d%pi%value (matflt_type) (7.9.8.1.15)
source (4255)	coreprof%profiles1d%pi%source (vecstring_type) (7.9.8.1.20)
pi_tot (4470)	coreprof%profiles1d%pi_tot (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%pi_tot%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%pi_tot%source (string) (7.9.8.1.4)
dpi_totdt (4470)	coreprof%profiles1d%dpi_totdt (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%dpi_totdt%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%dpi_totdt%source (string) (7.9.8.1.4)
pr_th (4470)	coreprof%profiles1d%pr_th (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%pr_th%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%pr_th%source (string) (7.9.8.1.4)
pr_perp (4470)	coreprof%profiles1d%pr_perp (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%pr_perp%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%pr_perp%source (string) (7.9.8.1.4)
pr_parallel (4470)	coreprof%profiles1d%pr_parallel (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%pr_parallel%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%pr_parallel%source (string) (7.9.8.1.4)
jtot (4470)	coreprof%profiles1d%jtot (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%jtot%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%jtot%source (string) (7.9.8.1.4)
jni (4470)	coreprof%profiles1d%jni (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%jni%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%jni%source (string) (7.9.8.1.4)
jphi (4470)	coreprof%profiles1d%jphi (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%jphi%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%jphi%source (string) (7.9.8.1.4)
joh (4470)	coreprof%profiles1d%joh (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%joh%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%joh%source (string) (7.9.8.1.4)
vloop (4470)	coreprof%profiles1d%vloop (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%vloop%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%vloop%source (string) (7.9.8.1.4)
sigmapar (4470)	coreprof%profiles1d%sigmapar (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%sigmapar%value (vecflt_type) (7.9.8.1.18)

source (4254)	coreprof%profiles1d%sigmapar%source (string) (7.9.8.1.4)
qoh (4470)	coreprof%profiles1d%qoh (sourceel) (7.9.8.1.435)
value (4538)	coreprof%profiles1d%qoh%value (vecflt_type) (7.9.8.1.18)
integral (4538)	coreprof%profiles1d%qoh%integral (vecflt_type) (7.9.8.1.18)
source (4538)	coreprof%profiles1d%qoh%source (string) (7.9.8.1.4)
qei (4470)	coreprof%profiles1d%qei (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%qei%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%qei%source (string) (7.9.8.1.4)
eparallel (4470)	coreprof%profiles1d%eparallel (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%eparallel%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%eparallel%source (string) (7.9.8.1.4)
e_b (4470)	coreprof%profiles1d%e_b (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%e_b%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%e_b%source (string) (7.9.8.1.4)
q (4470)	coreprof%profiles1d%q (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%q%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%q%source (string) (7.9.8.1.4)
shear (4470)	coreprof%profiles1d%shear (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%shear%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%shear%source (string) (7.9.8.1.4)
ns (4470)	coreprof%profiles1d%ns (coreprofion) (7.9.8.1.152)
value (4255)	coreprof%profiles1d%ns%value (matflt_type) (7.9.8.1.15)
source (4255)	coreprof%profiles1d%ns%source (vecstring_type) (7.9.8.1.20)
mtor (4470)	coreprof%profiles1d%mtor (coreprofion) (7.9.8.1.152)
value (4255)	coreprof%profiles1d%mtor%value (matflt_type) (7.9.8.1.15)
source (4255)	coreprof%profiles1d%mtor%source (vecstring_type) (7.9.8.1.20)
wtor (4470)	coreprof%profiles1d%wtor (coreprofion) (7.9.8.1.152)
value (4255)	coreprof%profiles1d%wtor%value (matflt_type) (7.9.8.1.15)
source (4255)	coreprof%profiles1d%wtor%source (vecstring_type) (7.9.8.1.20)
vpol (4470)	coreprof%profiles1d%vpol (coreprofion) (7.9.8.1.152)
value (4255)	coreprof%profiles1d%vpol%value (matflt_type) (7.9.8.1.15)
source (4255)	coreprof%profiles1d%vpol%source (vecstring_type) (7.9.8.1.20)
zeff (4470)	coreprof%profiles1d%zeff (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%zeff%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%zeff%source (string) (7.9.8.1.4)
bpol (4470)	coreprof%profiles1d%bpol (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%bpol%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%bpol%source (string) (7.9.8.1.4)
dvprimedt (4470)	coreprof%profiles1d%dvprimedt (coreprofile) (7.9.8.1.151)
value (4254)	coreprof%profiles1d%dvprimedt%value (vecflt_type) (7.9.8.1.18)
source (4254)	coreprof%profiles1d%dvprimedt%source (string) (7.9.8.1.4)
globalparam (4137)	coreprof%globalparam (globalparam) (7.9.8.1.257)
current_tot (4360)	coreprof%globalparam%current_tot (float) (7.9.8.1.2)
current_bnd (4360)	coreprof%globalparam%current_bnd (float) (7.9.8.1.2)
current_ni (4360)	coreprof%globalparam%current_ni (float) (7.9.8.1.2)
vloop (4360)	coreprof%globalparam%vloop (float) (7.9.8.1.2)
li (4360)	coreprof%globalparam%li (float) (7.9.8.1.2)
beta_tor (4360)	coreprof%globalparam%beta_tor (float) (7.9.8.1.2)
beta_normal (4360)	coreprof%globalparam%beta_normal (float) (7.9.8.1.2)
beta_pol (4360)	coreprof%globalparam%beta_pol (float) (7.9.8.1.2)
w_dia (4360)	coreprof%globalparam%w_dia (float) (7.9.8.1.2)
geom_axis (4360)	coreprof%globalparam%geom_axis (rz0D) (7.9.8.1.386)
r (4489)	coreprof%globalparam%geom_axis%r (float) (7.9.8.1.2)
z (4489)	coreprof%globalparam%geom_axis%z (float) (7.9.8.1.2)
codeparam (4137)	coreprof%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coreprof%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coreprof%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coreprof%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coreprof%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coreprof%codeparam%output_flag (integer) (7.9.8.1.3)
time (4137)	coreprof%time (float) (7.9.8.1.2)

7.9.8.2.13 coresource

datainfo (4138)	coresource%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	coresource%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coresource%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coresource%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coresource%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coresource%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coresource%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coresource%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coresource%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coresource%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coresource%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coresource%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coresource%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coresource%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coresource%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coresource%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coresource%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coresource%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coresource%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4138)	coresource%composition (composition) (7.9.8.1.123)
amn (4226)	coresource%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	coresource%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	coresource%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	coresource%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	coresource%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4138)	coresource%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coresource%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coresource%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coresource%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coresource%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coresource%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coresource%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coresource%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4138)	coresource%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coresource%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coresource%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coresource%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coresource%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coresource%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coresource%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coresource%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coresource%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coresource%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coresource%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coresource%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coresource%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coresource%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coresource%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coresource%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coresource%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coresource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coresource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coresource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coresource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coresource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coresource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coresource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coresource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coresource%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)

edgespecies (4230)	coresource%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coresource%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coresource%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	coresource%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coresource%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coresource%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coresource%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coresource%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coresource%compositions%signature%description (string) (7.9.8.1.4)
toroid_field (4138)	coresource%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	coresource%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	coresource%toroid_field%b0 (float) (7.9.8.1.2)
values (4138)	coresource%values(:) (coresource_values) (7.9.8.1.153)
sourceid (4256)	coresource%values(:)%sourceid (identifier) (7.9.8.1.263)
id (4366)	coresource%values(:)%sourceid%id (string) (7.9.8.1.4)
flag (4366)	coresource%values(:)%sourceid%flag (integer) (7.9.8.1.3)
description (4366)	coresource%values(:)%sourceid%description (string) (7.9.8.1.4)
rho_tor (4256)	coresource%values(:)%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4256)	coresource%values(:)%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4256)	coresource%values(:)%psi (vecflt_type) (7.9.8.1.18)
volume (4256)	coresource%values(:)%volume (vecflt_type) (7.9.8.1.18)
area (4256)	coresource%values(:)%area (vecflt_type) (7.9.8.1.18)
j (4256)	coresource%values(:)%j (vecflt_type) (7.9.8.1.18)
sigma (4256)	coresource%values(:)%sigma (vecflt_type) (7.9.8.1.18)
si (4256)	coresource%values(:)%si (source_ion) (7.9.8.1.432)
exp (4535)	coresource%values(:)%si%exp (matflt_type) (7.9.8.1.15)
imp (4535)	coresource%values(:)%si%imp (matflt_type) (7.9.8.1.15)
se (4256)	coresource%values(:)%se (source_vec) (7.9.8.1.434)
exp (4537)	coresource%values(:)%se%exp (vecflt_type) (7.9.8.1.18)
imp (4537)	coresource%values(:)%se%imp (vecflt_type) (7.9.8.1.18)
sz (4256)	coresource%values(:)%sz(:) (source_imp) (7.9.8.1.431)
exp (4534)	coresource%values(:)%sz(:)%exp (matflt_type) (7.9.8.1.15)
imp (4534)	coresource%values(:)%sz(:)%imp (matflt_type) (7.9.8.1.15)
qi (4256)	coresource%values(:)%qi (source_ion) (7.9.8.1.432)
exp (4535)	coresource%values(:)%qi%exp (matflt_type) (7.9.8.1.15)
imp (4535)	coresource%values(:)%qi%imp (matflt_type) (7.9.8.1.15)
qe (4256)	coresource%values(:)%qe (source_vec) (7.9.8.1.434)
exp (4537)	coresource%values(:)%qe%exp (vecflt_type) (7.9.8.1.18)
imp (4537)	coresource%values(:)%qe%imp (vecflt_type) (7.9.8.1.18)
qz (4256)	coresource%values(:)%qz(:) (source_imp) (7.9.8.1.431)
exp (4534)	coresource%values(:)%qz(:)%exp (matflt_type) (7.9.8.1.15)
imp (4534)	coresource%values(:)%qz(:)%imp (matflt_type) (7.9.8.1.15)
ui (4256)	coresource%values(:)%ui (source_ion) (7.9.8.1.432)
exp (4535)	coresource%values(:)%ui%exp (matflt_type) (7.9.8.1.15)
imp (4535)	coresource%values(:)%ui%imp (matflt_type) (7.9.8.1.15)
ujxb (4256)	coresource%values(:)%ujxb (source_vec) (7.9.8.1.434)
exp (4537)	coresource%values(:)%ujxb%exp (vecflt_type) (7.9.8.1.18)
imp (4537)	coresource%values(:)%ujxb%imp (vecflt_type) (7.9.8.1.18)
codeparam (4256)	coresource%values(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coresource%values(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coresource%values(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coresource%values(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coresource%values(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coresource%values(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4138)	coresource%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coresource%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coresource%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coresource%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coresource%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coresource%codeparam%output_flag (integer) (7.9.8.1.3)
time (4138)	coresource%time (float) (7.9.8.1.2)

7.9.8.2.14 coretransp

datainfo (4139)	coretransp%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	coretransp%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	coretransp%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	coretransp%datainfo%source (string) (7.9.8.1.4)
comment (4265)	coretransp%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	coretransp%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	coretransp%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	coretransp%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	coretransp%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	coretransp%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	coretransp%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	coretransp%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	coretransp%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	coretransp%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	coretransp%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	coretransp%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	coretransp%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	coretransp%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	coretransp%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4139)	coretransp%composition (composition) (7.9.8.1.123)
amn (4226)	coretransp%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	coretransp%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	coretransp%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	coretransp%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	coretransp%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4139)	coretransp%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	coretransp%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	coretransp%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	coretransp%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	coretransp%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	coretransp%desc_impur%zmin (matint_type) (7.9.8.1.16)
zmax (4267)	coretransp%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	coretransp%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4139)	coretransp%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	coretransp%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	coretransp%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	coretransp%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	coretransp%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	coretransp%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	coretransp%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	coretransp%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	coretransp%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	coretransp%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	coretransp%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	coretransp%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	coretransp%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	coretransp%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	coretransp%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	coretransp%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	coretransp%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	coretransp%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	coretransp%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	coretransp%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	coretransp%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	coretransp%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	coretransp%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	coretransp%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	coretransp%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)

edgespecies (4230)	coretransp%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	coretransp%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	coretransp%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	coretransp%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	coretransp%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	coretransp%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	coretransp%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	coretransp%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	coretransp%compositions%signature%description (string) (7.9.8.1.4)
values (4139)	coretransp%values(:) (coretransp_values) (7.9.8.1.157)
transportid (4260)	coretransp%values(:)%transportid (identifier) (7.9.8.1.263)
id (4366)	coretransp%values(:)%transportid%id (string) (7.9.8.1.4)
flag (4366)	coretransp%values(:)%transportid%flag (integer) (7.9.8.1.3)
description (4366)	coretransp%values(:)%transportid%description (string) (7.9.8.1.4)
rho_tor_norm (4260)	coretransp%values(:)%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4260)	coretransp%values(:)%rho_tor (vecflt_type) (7.9.8.1.18)
psi (4260)	coretransp%values(:)%psi (vecflt_type) (7.9.8.1.18)
volume (4260)	coretransp%values(:)%volume (vecflt_type) (7.9.8.1.18)
area (4260)	coretransp%values(:)%area (vecflt_type) (7.9.8.1.18)
sigma (4260)	coretransp%values(:)%sigma (vecflt_type) (7.9.8.1.18)
ni_transp (4260)	coretransp%values(:)%ni_transp (ni_transp) (7.9.8.1.320)
diff_eff (4423)	coretransp%values(:)%ni_transp%diff_eff (array3dflt_type) (7.9.8.1.7)
vconv_eff (4423)	coretransp%values(:)%ni_transp%vconv_eff (array3dflt_type) (7.9.8.1.7)
flux (4423)	coretransp%values(:)%ni_transp%flux (matflt_type) (7.9.8.1.15)
off_diagonal (4423)	coretransp%values(:)%ni_transp%off_diagonal (offdiagion) (7.9.8.1.330)
d_ni (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_ni (array3dflt_type) (7.9.8.1.7)
d_ti (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_ti (array3dflt_type) (7.9.8.1.7)
d_ne (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_ne (matflt_type) (7.9.8.1.15)
d_te (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_te (matflt_type) (7.9.8.1.15)
d_epar (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_epar (matflt_type) (7.9.8.1.15)
d_mtor (4433)	coretransp%values(:)%ni_transp%off_diagonal%d_mtor (matflt_type) (7.9.8.1.15)
flag (4423)	coretransp%values(:)%ni_transp%flag (integer) (7.9.8.1.3)
ne_transp (4260)	coretransp%values(:)%ne_transp (ne_transp) (7.9.8.1.315)
diff_eff (4418)	coretransp%values(:)%ne_transp%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4418)	coretransp%values(:)%ne_transp%vconv_eff (matflt_type) (7.9.8.1.15)
flux (4418)	coretransp%values(:)%ne_transp%flux (vecflt_type) (7.9.8.1.18)
off_diagonal (4418)	coretransp%values(:)%ne_transp%off_diagonal (offdiagel) (7.9.8.1.329)
d_ni (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_ni (matflt_type) (7.9.8.1.15)
d_ti (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_ti (matflt_type) (7.9.8.1.15)
d_ne (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_ne (vecflt_type) (7.9.8.1.18)
d_te (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_te (vecflt_type) (7.9.8.1.18)
d_epar (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_epar (vecflt_type) (7.9.8.1.18)
d_mtor (4432)	coretransp%values(:)%ne_transp%off_diagonal%d_mtor (vecflt_type) (7.9.8.1.18)
flag (4418)	coretransp%values(:)%ne_transp%flag (integer) (7.9.8.1.3)
nz_transp (4260)	coretransp%values(:)%nz_transp(:) (transcoefimp) (7.9.8.1.490)
diff_eff (4593)	coretransp%values(:)%nz_transp(:)%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4593)	coretransp%values(:)%nz_transp(:)%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4593)	coretransp%values(:)%nz_transp(:)%exchange (matflt_type) (7.9.8.1.15)
flux (4593)	coretransp%values(:)%nz_transp(:)%flux (matflt_type) (7.9.8.1.15)
flag (4593)	coretransp%values(:)%nz_transp(:)%flag (integer) (7.9.8.1.3)
ti_transp (4260)	coretransp%values(:)%ti_transp (transcoefion) (7.9.8.1.491)
diff_eff (4594)	coretransp%values(:)%ti_transp%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4594)	coretransp%values(:)%ti_transp%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4594)	coretransp%values(:)%ti_transp%exchange (matflt_type) (7.9.8.1.15)
qgi (4594)	coretransp%values(:)%ti_transp%qgi (matflt_type) (7.9.8.1.15)
flux (4594)	coretransp%values(:)%ti_transp%flux (matflt_type) (7.9.8.1.15)
off_diagonal (4594)	coretransp%values(:)%ti_transp%off_diagonal (offdiagion) (7.9.8.1.330)
d_ni (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_ni (array3dflt_type) (7.9.8.1.7)
d_ti (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_ti (array3dflt_type) (7.9.8.1.7)
d_ne (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_ne (matflt_type) (7.9.8.1.15)
d_te (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_te (matflt_type) (7.9.8.1.15)

d_epar (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_epar (matflt_type) (7.9.8.1.15)
d_mtor (4433)	coretransp%values(:)%ti_transp%off_diagonal%d_mtor (matflt_type) (7.9.8.1.15)
flag (4594)	coretransp%values(:)%ti_transp%flag (integer) (7.9.8.1.3)
te_transp (4260)	coretransp%values(:)%te_transp (transcoefel) (7.9.8.1.489)
diff_eff (4592)	coretransp%values(:)%te_transp%diff_eff (vecflt_type) (7.9.8.1.18)
vconv_eff (4592)	coretransp%values(:)%te_transp%vconv_eff (vecflt_type) (7.9.8.1.18)
flux (4592)	coretransp%values(:)%te_transp%flux (vecflt_type) (7.9.8.1.18)
off_diagonal (4592)	coretransp%values(:)%te_transp%off_diagonal (offdiagel) (7.9.8.1.329)
d_ni (4432)	coretransp%values(:)%te_transp%off_diagonal%d_ni (matflt_type) (7.9.8.1.15)
d_ti (4432)	coretransp%values(:)%te_transp%off_diagonal%d_ti (matflt_type) (7.9.8.1.15)
d_ne (4432)	coretransp%values(:)%te_transp%off_diagonal%d_ne (vecflt_type) (7.9.8.1.18)
d_te (4432)	coretransp%values(:)%te_transp%off_diagonal%d_te (vecflt_type) (7.9.8.1.18)
d_epar (4432)	coretransp%values(:)%te_transp%off_diagonal%d_epar (vecflt_type) (7.9.8.1.18)
d_mtor (4432)	coretransp%values(:)%te_transp%off_diagonal%d_mtor (vecflt_type) (7.9.8.1.18)
flag (4592)	coretransp%values(:)%te_transp%flag (integer) (7.9.8.1.3)
tz_transp (4260)	coretransp%values(:)%tz_transp(:) (transcoefimp) (7.9.8.1.490)
diff_eff (4593)	coretransp%values(:)%tz_transp(:)%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4593)	coretransp%values(:)%tz_transp(:)%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4593)	coretransp%values(:)%tz_transp(:)%exchange (matflt_type) (7.9.8.1.15)
flux (4593)	coretransp%values(:)%tz_transp(:)%flux (matflt_type) (7.9.8.1.15)
flag (4593)	coretransp%values(:)%tz_transp(:)%flag (integer) (7.9.8.1.3)
vtor_transp (4260)	coretransp%values(:)%vtor_transp (transcoefvtor) (7.9.8.1.492)
diff_eff (4595)	coretransp%values(:)%vtor_transp%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4595)	coretransp%values(:)%vtor_transp%vconv_eff (matflt_type) (7.9.8.1.15)
flux (4595)	coretransp%values(:)%vtor_transp%flux (matflt_type) (7.9.8.1.15)
off_diagonal (4595)	coretransp%values(:)%vtor_transp%off_diagonal (offdiagion) (7.9.8.1.330)
d_ni (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_ni (array3dflt_type) (7.9.8.1.7)
d_ti (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_ti (array3dflt_type) (7.9.8.1.7)
d_ne (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_ne (matflt_type) (7.9.8.1.15)
d_te (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_te (matflt_type) (7.9.8.1.15)
d_epar (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_epar (matflt_type) (7.9.8.1.15)
d_mtor (4433)	coretransp%values(:)%vtor_transp%off_diagonal%d_mtor (matflt_type) (7.9.8.1.15)
flag (4595)	coretransp%values(:)%vtor_transp%flag (integer) (7.9.8.1.3)
codeparam (4260)	coretransp%values(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coretransp%values(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coretransp%values(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coretransp%values(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coretransp%values(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coretransp%values(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4139)	coretransp%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	coretransp%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	coretransp%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	coretransp%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	coretransp%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	coretransp%codeparam%output_flag (integer) (7.9.8.1.3)
time (4139)	coretransp%time (float) (7.9.8.1.2)

7.9.8.2.15 cxdiag

datainfo (4140)	cxdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	cxdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	cxdiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	cxdiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	cxdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	cxdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	cxdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	cxdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	cxdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	cxdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	cxdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	cxdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)

run (4637)	cxdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	cxdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	cxdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	cxdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	cxdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	cxdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	cxdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4140)	cxdiag%setup (cxsetup) (7.9.8.1.160)
amn (4263)	cxdiag%setup%amn (vecflt_type) (7.9.8.1.18)
zn (4263)	cxdiag%setup%zn (vecflt_type) (7.9.8.1.18)
position (4263)	cxdiag%setup%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	cxdiag%setup%position%r (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%setup%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%setup%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%setup%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	cxdiag%setup%position%z (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%setup%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%setup%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%setup%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	cxdiag%setup%position%phi (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%setup%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%setup%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%setup%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4140)	cxdiag%measure (cxmeasure) (7.9.8.1.159)
ti (4262)	cxdiag%measure%ti (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%measure%ti%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%measure%ti%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%measure%ti%relerror (vecflt_type) (7.9.8.1.18)
vtor (4262)	cxdiag%measure%vtor (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%measure%vtor%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%measure%vtor%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%measure%vtor%relerror (vecflt_type) (7.9.8.1.18)
vpol (4262)	cxdiag%measure%vpol (exp1D) (7.9.8.1.225)
value (4328)	cxdiag%measure%vpol%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	cxdiag%measure%vpol%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	cxdiag%measure%vpol%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4140)	cxdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	cxdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	cxdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	cxdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	cxdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	cxdiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4140)	cxdiag%time (float) (7.9.8.1.2)

7.9.8.2.16 distribution

datainfo (4141)	distribution%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	distribution%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	distribution%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	distribution%datainfo%source (string) (7.9.8.1.4)
comment (4265)	distribution%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	distribution%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	distribution%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	distribution%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	distribution%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	distribution%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	distribution%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	distribution%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	distribution%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	distribution%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	distribution%datainfo%putinfo (putinfo) (7.9.8.1.370)

putmethod (4473)	distribution%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	distribution%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	distribution%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	distribution%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4141)	distribution%composition (composition) (7.9.8.1.123)
amn (4226)	distribution%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	distribution%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	distribution%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	distribution%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	distribution%composition%label (vecstring_type) (7.9.8.1.20)
compositions (4141)	distribution%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	distribution%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	distribution%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	distribution%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	distribution%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	distribution%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	distribution%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	distribution%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	distribution%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	distribution%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	distribution%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	distribution%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	distribution%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	distribution%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	distribution%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	distribution%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	distribution%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	distribution%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	distribution%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	distribution%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	distribution%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	distribution%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	distribution%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	distribution%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	distribution%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	distribution%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	distribution%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	distribution%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	distribution%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	distribution%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	distribution%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	distribution%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	distribution%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	distribution%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	distribution%compositions%signature%description (string) (7.9.8.1.4)
distri_vec (4141)	distribution%distri_vec(:) (distri_vec) (7.9.8.1.194)
wave_id (4297)	distribution%distri_vec(:)%wave_id(:) (enum_instance) (7.9.8.1.216)
type (4319)	distribution%distri_vec(:)%wave_id(:)%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%wave_id(:)%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%wave_id(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%wave_id(:)%type%description (string) (7.9.8.1.4)
name (4319)	distribution%distri_vec(:)%wave_id(:)%name (string) (7.9.8.1.4)
index (4319)	distribution%distri_vec(:)%wave_id(:)%index (integer) (7.9.8.1.3)
source_id (4297)	distribution%distri_vec(:)%source_id(:) (enum_instance) (7.9.8.1.216)
type (4319)	distribution%distri_vec(:)%source_id(:)%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%source_id(:)%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%source_id(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%source_id(:)%type%description (string) (7.9.8.1.4)
name (4319)	distribution%distri_vec(:)%source_id(:)%name (string) (7.9.8.1.4)
index (4319)	distribution%distri_vec(:)%source_id(:)%index (integer) (7.9.8.1.3)
species (4297)	distribution%distri_vec(:)%species (species_reference) (7.9.8.1.439)

type (4542)	distribution%distri_vec(:)%species%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%species%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%species%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%species%type%description (string) (7.9.8.1.4)
index (4542)	distribution%distri_vec(:)%species%index (integer) (7.9.8.1.3)
gyro_type (4297)	distribution%distri_vec(:)%gyro_type (integer) (7.9.8.1.3)
fast_filter (4297)	distribution%distri_vec(:)%fast_filter (fast_thermal_separation_filter) (7.9.8.1.228)
method (4331)	distribution%distri_vec(:)%fast_filter%method (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%fast_filter%method%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%fast_filter%method%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%fast_filter%method%description (string) (7.9.8.1.4)
energy_sep (4331)	distribution%distri_vec(:)%fast_filter%energy_sep (vecflt_type) (7.9.8.1.18)
global_param (4297)	distribution%distri_vec(:)%global_param (dist_global_param) (7.9.8.1.178)
geometry (4281)	distribution%distri_vec(:)%global_param%geometry (dist_geometry_0d) (7.9.8.1.175)
mag_axis (4278)	distribution%distri_vec(:)%global_param%geometry%mag_axis (rz0D) (7.9.8.1.386)
r (4489)	distribution%distri_vec(:)%global_param%geometry%mag_axis%r (float) (7.9.8.1.2)
z (4489)	distribution%distri_vec(:)%global_param%geometry%mag_axis%z (float) (7.9.8.1.2)
toroid_field (4278)	distribution%distri_vec(:)%global_param%geometry%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	distribution%distri_vec(:)%global_param%geometry%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	distribution%distri_vec(:)%global_param%geometry%toroid_field%b0 (float) (7.9.8.1.2)
state (4281)	distribution%distri_vec(:)%global_param%state (dist_state_0d) (7.9.8.1.190)
n_particles (4293)	distribution%distri_vec(:)%global_param%state%n_particles (float) (7.9.8.1.2)
n_part_fast (4293)	distribution%distri_vec(:)%global_param%state%n_part_fast (float) (7.9.8.1.2)
enrg (4293)	distribution%distri_vec(:)%global_param%state%enrg (float) (7.9.8.1.2)
enrg_fast (4293)	distribution%distri_vec(:)%global_param%state%enrg_fast (float) (7.9.8.1.2)
enrg_fast_pa (4293)	distribution%distri_vec(:)%global_param%state%enrg_fast_pa (float) (7.9.8.1.2)
momentm_fast (4293)	distribution%distri_vec(:)%global_param%state%momentm_fast (float) (7.9.8.1.2)
current_dr (4293)	distribution%distri_vec(:)%global_param%state%current_dr (float) (7.9.8.1.2)
torque_jrxb (4293)	distribution%distri_vec(:)%global_param%state%torque_jrxb (float) (7.9.8.1.2)
collisions_e (4281)	distribution%distri_vec(:)%global_param%collisions_e (dist_collisional_transfer_0d) (7.9.8.1.169)
power_th (4272)	distribution%distri_vec(:)%global_param%collisions_e%power_th (float) (7.9.8.1.2)
power_fast (4272)	distribution%distri_vec(:)%global_param%collisions_e%power_fast (float) (7.9.8.1.2)
torque_th (4272)	distribution%distri_vec(:)%global_param%collisions_e%torque_th (float) (7.9.8.1.2)
torque_fast (4272)	distribution%distri_vec(:)%global_param%collisions_e%torque_fast (float) (7.9.8.1.2)
collisions_i (4281)	distribution%distri_vec(:)%global_param%collisions_i(:) (dist_collisional_transfer_0d) (7.9.8.1.169)
power_th (4272)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_th (float) (7.9.8.1.2)
power_fast (4272)	distribution%distri_vec(:)%global_param%collisions_i(:)%power_fast (float) (7.9.8.1.2)
torque_th (4272)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_th (float) (7.9.8.1.2)
torque_fast (4272)	distribution%distri_vec(:)%global_param%collisions_i(:)%torque_fast (float) (7.9.8.1.2)
collisions_z (4281)	distribution%distri_vec(:)%global_param%collisions_z(:) (dist_global_param_collisions_z) (7.9.8.1.179)
charge_state (4282)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:) (dist_collisional_transfer_0d) (7.9.8.1.169)
power_th (4272)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_th (float) (7.9.8.1.2)
power_fast (4272)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%power_fast (float) (7.9.8.1.2)
torque_th (4272)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_th (float) (7.9.8.1.2)
torque_fast (4272)	distribution%distri_vec(:)%global_param%collisions_z(:)%charge_state(:)%torque_fast (float) (7.9.8.1.2)
sources (4281)	distribution%distri_vec(:)%global_param%sources(:) (dist_sources_0d) (7.9.8.1.187)
source_ref (4290)	distribution%distri_vec(:)%global_param%sources(:)%source_ref (dist_sources_reference) (7.9.8.1.189)
type (4292)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%type%description (string) (7.9.8.1.4)
index_waveid (4292)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_waveid (vecint_type) (7.9.8.1.19)

index_srcid (4292)	distribution%distri_vec(:)%global_param%sources(:)%source_ref%index_srcid (vecint_type) (7.9.8.1.19)
particle (4290)	distribution%distri_vec(:)%global_param%sources(:)%particle (float) (7.9.8.1.2)
momentum (4290)	distribution%distri_vec(:)%global_param%sources(:)%momentum (float) (7.9.8.1.2)
energy (4290)	distribution%distri_vec(:)%global_param%sources(:)%energy (float) (7.9.8.1.2)
profiles_1d (4297)	distribution%distri_vec(:)%profiles_1d (dist_profiles_1d) (7.9.8.1.184)
geometry (4287)	distribution%distri_vec(:)%profiles_1d%geometry (dist_geometry_1d) (7.9.8.1.176)
rho_tor (4279)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4279)	distribution%distri_vec(:)%profiles_1d%geometry%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4279)	distribution%distri_vec(:)%profiles_1d%geometry%psi (vecflt_type) (7.9.8.1.18)
volume (4279)	distribution%distri_vec(:)%profiles_1d%geometry%volume (vecflt_type) (7.9.8.1.18)
area (4279)	distribution%distri_vec(:)%profiles_1d%geometry%area (vecflt_type) (7.9.8.1.18)
state (4287)	distribution%distri_vec(:)%profiles_1d%state (dist_state_1d) (7.9.8.1.191)
dens (4294)	distribution%distri_vec(:)%profiles_1d%state%dens (vecflt_type) (7.9.8.1.18)
dens_fast (4294)	distribution%distri_vec(:)%profiles_1d%state%dens_fast (vecflt_type) (7.9.8.1.18)
pres (4294)	distribution%distri_vec(:)%profiles_1d%state%pres (vecflt_type) (7.9.8.1.18)
pres_fast (4294)	distribution%distri_vec(:)%profiles_1d%state%pres_fast (vecflt_type) (7.9.8.1.18)
pres_fast_pa (4294)	distribution%distri_vec(:)%profiles_1d%state%pres_fast_pa (vecflt_type) (7.9.8.1.18)
momentm_fast (4294)	distribution%distri_vec(:)%profiles_1d%state%momentm_fast (vecflt_type) (7.9.8.1.18)
current (4294)	distribution%distri_vec(:)%profiles_1d%state%current (vecflt_type) (7.9.8.1.18)
current_fast (4294)	distribution%distri_vec(:)%profiles_1d%state%current_fast (vecflt_type) (7.9.8.1.18)
torque_jrxb (4294)	distribution%distri_vec(:)%profiles_1d%state%torque_jrxb (vecflt_type) (7.9.8.1.18)
collisions_e (4287)	distribution%distri_vec(:)%profiles_1d%collisions_e (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_e%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_e%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_i (4287)	distribution%distri_vec(:)%profiles_1d%collisions_i(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_i(:)%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_z (4287)	distribution%distri_vec(:)%profiles_1d%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.8.1.185)
charge_state (4288)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.8.1.18)
thermalised (4287)	distribution%distri_vec(:)%profiles_1d%thermalised (dist_thermalised_1d) (7.9.8.1.193)
particle (4296)	distribution%distri_vec(:)%profiles_1d%thermalised%particle (vecflt_type) (7.9.8.1.18)
momentum (4296)	distribution%distri_vec(:)%profiles_1d%thermalised%momentum (vecflt_type) (7.9.8.1.18)
energy (4296)	distribution%distri_vec(:)%profiles_1d%thermalised%energy (vecflt_type) (7.9.8.1.18)
sources (4287)	distribution%distri_vec(:)%profiles_1d%sources(:) (dist_sources_1d) (7.9.8.1.188)
source_ref (4291)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref (dist_sources_reference) (7.9.8.1.189)
type (4292)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%type%description (string) (7.9.8.1.4)
index_waveid (4292)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_waveid (vecint_type) (7.9.8.1.19)
index_srcid (4292)	distribution%distri_vec(:)%profiles_1d%sources(:)%source_ref%index_srcid (vecint_type) (7.9.8.1.19)
particle (4291)	distribution%distri_vec(:)%profiles_1d%sources(:)%particle (vecflt_type) (7.9.8.1.18)
momentum (4291)	distribution%distri_vec(:)%profiles_1d%sources(:)%momentum (vecflt_type) (7.9.8.1.18)
energy (4291)	distribution%distri_vec(:)%profiles_1d%sources(:)%energy (vecflt_type) (7.9.8.1.18)
trapped (4287)	distribution%distri_vec(:)%profiles_1d%trapped (dist_profile_values_1d) (7.9.8.1.181)

state (4284)	distribution%distri_vec(:)%profiles_1d%trapped%state (dist_state_1d) (7.9.8.1.191)
dens (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens (vecflt_type) (7.9.8.1.18)
dens_fast (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%dens_fast (vecflt_type) (7.9.8.1.18)
pres (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres (vecflt_type) (7.9.8.1.18)
pres_fast (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast (vecflt_type) (7.9.8.1.18)
pres_fast_pa (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%pres_fast_pa (vecflt_type) (7.9.8.1.18)
momentm_fast (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%momentm_fast (vecflt_type) (7.9.8.1.18)
current (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%current (vecflt_type) (7.9.8.1.18)
current_fast (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%current_fast (vecflt_type) (7.9.8.1.18)
torque_jrxb (4294)	distribution%distri_vec(:)%profiles_1d%trapped%state%torque_jrxb (vecflt_type) (7.9.8.1.18)
collisions_e (4284)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_e%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_i (4284)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_i(:)%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_z (4284)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.8.1.185)
charge_state (4288)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%trapped%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.8.1.18)
sources (4284)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:) (dist_sources_1d) (7.9.8.1.188)
source_ref (4291)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref (dist_sources_reference) (7.9.8.1.189)
type (4292)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%type%description (string) (7.9.8.1.4)
index_waveid (4292)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_waveid (vecint_type) (7.9.8.1.19)
index_srcid (4292)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%source_ref%index_srcid (vecint_type) (7.9.8.1.19)
particle (4291)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%particle (vecflt_type) (7.9.8.1.18)
momentum (4291)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%momentum (vecflt_type) (7.9.8.1.18)
energy (4291)	distribution%distri_vec(:)%profiles_1d%trapped%sources(:)%energy (vecflt_type) (7.9.8.1.18)
co_passing (4287)	distribution%distri_vec(:)%profiles_1d%co_passing (dist_profile_values_1d) (7.9.8.1.181)
state (4284)	distribution%distri_vec(:)%profiles_1d%co_passing%state (dist_state_1d) (7.9.8.1.191)
dens (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens (vecflt_type) (7.9.8.1.18)
dens_fast (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%dens_fast (vecflt_type) (7.9.8.1.18)
pres (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres (vecflt_type) (7.9.8.1.18)
pres_fast (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast (vecflt_type) (7.9.8.1.18)
pres_fast_pa (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%pres_fast_pa (vecflt_type) (7.9.8.1.18)

momentm_fast (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%momentm_fast (vecflt_type) (7.9.8.1.18)
current (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current (vecflt_type) (7.9.8.1.18)
current_fast (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%current_fast (vecflt_type) (7.9.8.1.18)
torque_jrxb (4294)	distribution%distri_vec(:)%profiles_1d%co_passing%state%torque_jrxb (vecflt_type) (7.9.8.1.18)
collisions_e (4284)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_e%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_i (4284)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_z (4284)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.8.1.185)
charge_state (4288)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.8.1.18)
sources (4284)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:) (dist_sources_1d) (7.9.8.1.188)
source_ref (4291)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref (dist_sources_reference) (7.9.8.1.189)
type (4292)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%type%description (string) (7.9.8.1.4)
index_waveid (4292)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.8.1.19)
index_srcid (4292)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.8.1.19)
particle (4291)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%particle (vecflt_type) (7.9.8.1.18)
momentum (4291)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%momentum (vecflt_type) (7.9.8.1.18)
energy (4291)	distribution%distri_vec(:)%profiles_1d%co_passing%sources(:)%energy (vecflt_type) (7.9.8.1.18)
cntr_passing (4287)	distribution%distri_vec(:)%profiles_1d%cntr_passing (dist_profile_values_1d) (7.9.8.1.181)
state (4284)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state (dist_state_1d) (7.9.8.1.191)
dens (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens (vecflt_type) (7.9.8.1.18)
dens_fast (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%dens_fast (vecflt_type) (7.9.8.1.18)
pres (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres (vecflt_type) (7.9.8.1.18)
pres_fast (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast (vecflt_type) (7.9.8.1.18)
pres_fast_pa (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%pres_fast_pa (vecflt_type) (7.9.8.1.18)
momentm_fast (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%momentm_fast (vecflt_type) (7.9.8.1.18)

current (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current (vecflt_type) (7.9.8.1.18)
current_fast (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%current_fast (vecflt_type) (7.9.8.1.18)
torque_jrxb (4294)	distribution%distri_vec(:)%profiles_1d%cntr_passing%state%torque_jrxb (vecflt_type) (7.9.8.1.18)
collisions_e (4284)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_e%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_i (4284)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_i(:)%torque_fast (vecflt_type) (7.9.8.1.18)
collisions_z (4284)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:) (dist_profiles_1d_collisions_z) (7.9.8.1.185)
charge_state (4288)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_1d) (7.9.8.1.170)
power_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (vecflt_type) (7.9.8.1.18)
power_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (vecflt_type) (7.9.8.1.18)
torque_th (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (vecflt_type) (7.9.8.1.18)
torque_fast (4273)	distribution%distri_vec(:)%profiles_1d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (vecflt_type) (7.9.8.1.18)
sources (4284)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:) (dist_sources_1d) (7.9.8.1.188)
source_ref (4291)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref (dist_sources_reference) (7.9.8.1.189)
type (4292)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%type%description (string) (7.9.8.1.4)
index_waveid (4292)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_waveid (vecint_type) (7.9.8.1.19)
index_srcid (4292)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%source_ref%index_srcid (vecint_type) (7.9.8.1.19)
particle (4291)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%particle (vecflt_type) (7.9.8.1.18)
momentum (4291)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%momentum (vecflt_type) (7.9.8.1.18)
energy (4291)	distribution%distri_vec(:)%profiles_1d%cntr_passing%sources(:)%energy (vecflt_type) (7.9.8.1.18)
profiles_2d (4297)	distribution%distri_vec(:)%profiles_2d (dist_profiles_2d) (7.9.8.1.186)
geometry (4289)	distribution%distri_vec(:)%profiles_2d%geometry (dist_geometry_2d) (7.9.8.1.177)
coord_type (4280)	distribution%distri_vec(:)%profiles_2d%geometry%coord_type (integer) (7.9.8.1.3)
r (4280)	distribution%distri_vec(:)%profiles_2d%geometry%r (matflt_type) (7.9.8.1.15)
z (4280)	distribution%distri_vec(:)%profiles_2d%geometry%z (matflt_type) (7.9.8.1.15)
rho_tor (4280)	distribution%distri_vec(:)%profiles_2d%geometry%rho_tor (matflt_type) (7.9.8.1.15)
psi (4280)	distribution%distri_vec(:)%profiles_2d%geometry%psi (matflt_type) (7.9.8.1.15)
theta_geom (4280)	distribution%distri_vec(:)%profiles_2d%geometry%theta_geom (matflt_type) (7.9.8.1.15)
theta_strt (4280)	distribution%distri_vec(:)%profiles_2d%geometry%theta_strt (matflt_type) (7.9.8.1.15)
state (4289)	distribution%distri_vec(:)%profiles_2d%state (dist_state_2d) (7.9.8.1.192)
dens (4295)	distribution%distri_vec(:)%profiles_2d%state%dens (matflt_type) (7.9.8.1.15)
dens_fast (4295)	distribution%distri_vec(:)%profiles_2d%state%dens_fast (matflt_type) (7.9.8.1.15)

pres (4295)	distribution%distri_vec(:)%profiles_2d%state%pres (matflt_type) (7.9.8.1.15)
pres_fast (4295)	distribution%distri_vec(:)%profiles_2d%state%pres_fast (matflt_type) (7.9.8.1.15)
pres_fast_pa (4295)	distribution%distri_vec(:)%profiles_2d%state%pres_fast_pa (matflt_type) (7.9.8.1.15)
momentm_fast (4295)	distribution%distri_vec(:)%profiles_2d%state%momentm_fast (matflt_type) (7.9.8.1.15)
current (4295)	distribution%distri_vec(:)%profiles_2d%state%current (matflt_type) (7.9.8.1.15)
current_fast (4295)	distribution%distri_vec(:)%profiles_2d%state%current_fast (matflt_type) (7.9.8.1.15)
torque_jrxb (4295)	distribution%distri_vec(:)%profiles_2d%state%torque_jrxb (matflt_type) (7.9.8.1.15)
collisions_e (4289)	distribution%distri_vec(:)%profiles_2d%collisions_e (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_e%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_e%torque_fast (matflt_type) (7.9.8.1.15)
collisions_i (4289)	distribution%distri_vec(:)%profiles_2d%collisions_i(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_i(:)%torque_fast (matflt_type) (7.9.8.1.15)
collisions_z (4289)	distribution%distri_vec(:)%profiles_2d%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.8.1.183)
charge_state (4286)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.8.1.15)
trapped (4289)	distribution%distri_vec(:)%profiles_2d%trapped (dist_profile_values_2d) (7.9.8.1.182)
state (4285)	distribution%distri_vec(:)%profiles_2d%trapped%state (dist_state_2d) (7.9.8.1.192)
dens (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens (matflt_type) (7.9.8.1.15)
dens_fast (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%dens_fast (matflt_type) (7.9.8.1.15)
pres (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres (matflt_type) (7.9.8.1.15)
pres_fast (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast (matflt_type) (7.9.8.1.15)
pres_fast_pa (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%pres_fast_pa (matflt_type) (7.9.8.1.15)
momentm_fast (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%momentm_fast (matflt_type) (7.9.8.1.15)
current (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%current (matflt_type) (7.9.8.1.15)
current_fast (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%current_fast (matflt_type) (7.9.8.1.15)
torque_jrxb (4295)	distribution%distri_vec(:)%profiles_2d%trapped%state%torque_jrxb (matflt_type) (7.9.8.1.15)
collisions_e (4285)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_e%torque_fast (matflt_type) (7.9.8.1.15)
collisions_i (4285)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_i(:)%torque_fast (matflt_type) (7.9.8.1.15)
collisions_z (4285)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.8.1.183)
charge_state (4286)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.8.1.15)

power_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%trapped%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.8.1.15)
co_passing (4289)	distribution%distri_vec(:)%profiles_2d%co_passing (dist_profile_values_2d) (7.9.8.1.182)
state (4285)	distribution%distri_vec(:)%profiles_2d%co_passing%state (dist_state_2d) (7.9.8.1.192)
dens (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens (matflt_type) (7.9.8.1.15)
dens_fast (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%dens_fast (matflt_type) (7.9.8.1.15)
pres (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres (matflt_type) (7.9.8.1.15)
pres_fast (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast (matflt_type) (7.9.8.1.15)
pres_fast_pa (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%pres_fast_pa (matflt_type) (7.9.8.1.15)
momentm_fast (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%momentm_fast (matflt_type) (7.9.8.1.15)
current (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current (matflt_type) (7.9.8.1.15)
current_fast (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%current_fast (matflt_type) (7.9.8.1.15)
torque_jrxb (4295)	distribution%distri_vec(:)%profiles_2d%co_passing%state%torque_jrxb (matflt_type) (7.9.8.1.15)
collisions_e (4285)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_e%torque_fast (matflt_type) (7.9.8.1.15)
collisions_i (4285)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.8.1.15)
collisions_z (4285)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.8.1.183)
charge_state (4286)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%co_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.8.1.15)
cntr_passing (4289)	distribution%distri_vec(:)%profiles_2d%cntr_passing (dist_profile_values_2d) (7.9.8.1.182)
state (4285)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state (dist_state_2d) (7.9.8.1.192)
dens (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens (matflt_type) (7.9.8.1.15)
dens_fast (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%dens_fast (matflt_type) (7.9.8.1.15)
pres (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres (matflt_type) (7.9.8.1.15)
pres_fast (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast (matflt_type) (7.9.8.1.15)
pres_fast_pa (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%pres_fast_pa (matflt_type) (7.9.8.1.15)
momentm_fast (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%momentm_fast (matflt_type) (7.9.8.1.15)
current (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current (matflt_type) (7.9.8.1.15)
current_fast (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%current_fast (matflt_type) (7.9.8.1.15)
torque_jrxb (4295)	distribution%distri_vec(:)%profiles_2d%cntr_passing%state%torque_jrxb (matflt_type) (7.9.8.1.15)
collisions_e (4285)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e (dist_collisional_transfer_2d) (7.9.8.1.171)

power_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_e%torque_fast (matflt_type) (7.9.8.1.15)
collisions_i (4285)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_i(:)%torque_fast (matflt_type) (7.9.8.1.15)
collisions_z (4285)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:) (dist_profiles2d_collisions_z) (7.9.8.1.183)
charge_state (4286)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:) (dist_collisional_transfer_2d) (7.9.8.1.171)
power_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_th (matflt_type) (7.9.8.1.15)
power_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%power_fast (matflt_type) (7.9.8.1.15)
torque_th (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_th (matflt_type) (7.9.8.1.15)
torque_fast (4274)	distribution%distri_vec(:)%profiles_2d%cntr_passing%collisions_z(:)%charge_state(:)%torque_fast (matflt_type) (7.9.8.1.15)
dist_func (4297)	distribution%distri_vec(:)%dist_func (dist_func) (7.9.8.1.174)
is_delta_f (4277)	distribution%distri_vec(:)%dist_func%is_delta_f (integer) (7.9.8.1.3)
markers (4277)	distribution%distri_vec(:)%dist_func%markers (weighted_markers) (7.9.8.1.533)
variable_ids (4636)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:) (identifier) (7.9.8.1.263)
id (4366)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%id (string) (7.9.8.1.4)
flag (4366)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%flag (integer) (7.9.8.1.3)
description (4366)	distribution%distri_vec(:)%dist_func%markers%variable_ids(:)%description (string) (7.9.8.1.4)
coord (4636)	distribution%distri_vec(:)%dist_func%markers%coord (matflt_type) (7.9.8.1.15)
weight (4636)	distribution%distri_vec(:)%dist_func%markers%weight (vecflt_type) (7.9.8.1.18)
f_expan_topo (4277)	distribution%distri_vec(:)%dist_func%f_expan_topo(:) (dist_ff) (7.9.8.1.173)
grid_info (4276)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info (dist_grid_info) (7.9.8.1.180)
grid_type (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_type (integer) (7.9.8.1.3)
ngriddim (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%ngriddim (integer) (7.9.8.1.3)
grid_coord (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%grid_coord (vecint_type) (7.9.8.1.19)
thin_orbits (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%thin_orbits (integer) (7.9.8.1.3)
topology (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%topology (string) (7.9.8.1.4)
omnigen_surf (4283)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:) (omnigen_surf) (7.9.8.1.331)
rz (4434)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz (rz1D) (7.9.8.1.387)
r (4490)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%r (vecflt_type) (7.9.8.1.18)
z (4490)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%rz%z (vecflt_type) (7.9.8.1.18)
s (4434)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%grid_info%omnigen_surf(:)%s (vecflt_type) (7.9.8.1.18)
topo_regions (4276)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:) (topo_regions) (7.9.8.1.486)
ind_omnigen (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%ind_omnigen (integer) (7.9.8.1.3)
dim1 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim1 (array6dflt_type) (7.9.8.1.11)
dim2 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim2 (array6dflt_type) (7.9.8.1.11)
dim3 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim3 (array6dflt_type) (7.9.8.1.11)
dim4 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim4 (array6dflt_type) (7.9.8.1.11)

dim5 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim5 (array6dflt_type) (7.9.8.1.11)
dim6 (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%dim6 (array6dflt_type) (7.9.8.1.11)
jacobian (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%jacobian (array6dflt_type) (7.9.8.1.11)
distfunc (4589)	distribution%distri_vec(:)%dist_func%f_expan_topo(:)%topo_regions(:)%distfunc (array6dflt_type) (7.9.8.1.11)
f_expansion (4277)	distribution%distri_vec(:)%dist_func%f_expansion(:) (f_expansion) (7.9.8.1.227)
grid (4330)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid (complexgrid) (7.9.8.1.110)
uid (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%uid (integer) (7.9.8.1.3)
id (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%id (string) (7.9.8.1.4)
spaces (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:) (complexgrid_space) (7.9.8.1.119)
geotype (4222)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotype (vecint_type) (7.9.8.1.19)
geotypeid (4222)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.8.1.20)
coordtype (4222)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%coordtype (matint_type) (7.9.8.1.16)
objects (4222)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:) (objects) (7.9.8.1.328)
boundary (4431)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.8.1.16)
neighbour (4431)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.8.1.8)
geo (4431)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.8.1.9)
measure (4431)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.8.1.15)
xpoints (4222)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.8.1.19)
subgrids (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.8.1.120)
id (4223)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%id (string) (7.9.8.1.4)
list (4223)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.8.1.114)
cls (4217)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.8.1.19)
indset (4217)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.8.1.112)
range (4215)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.8.1.19)
ind (4215)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.8.1.19)
ind (4217)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.8.1.16)
metric (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric (complexgrid_metric) (7.9.8.1.113)
measure (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
g11 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.8.1.7)

g12 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.8.1.7)
g13 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.8.1.7)
g22 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.8.1.7)
g23 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.8.1.7)
g33 (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.8.1.7)
jacobian (4216)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.8.1.7)
geo (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:) (complexgrid_geo_global) (7.9.8.1.111)

geotype (4214)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotype (integer) (7.9.8.1.3)
geotypeid (4214)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geotypeid (string) (7.9.8.1.4)
coordtype (4214)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%coordtype (vecint_type) (7.9.8.1.19)
geo_matrix (4214)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.8.1.7)
measure (4214)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
bases (4213)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%griduid (integer) (7.9.8.1.3)
label (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%label (string) (7.9.8.1.4)
comp (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	distribution%distri_vec(:)%dist_func%f_expansion(:)%grid%bases(:)%basis (integer) (7.9.8.1.3)
values (4330)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distribution%distri_vec(:)%dist_func%f_expansion(:)%values%matrix (array3dflt_type) (7.9.8.1.7)
parameters (4330)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters (dist_distrivec_distfunc_fexp_param) (7.9.8.1.172)
equatorial (4275)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial (equatorial_plane) (7.9.8.1.221)
r (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%r (vecflt_type) (7.9.8.1.18)
z (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%z (vecflt_type) (7.9.8.1.18)
s (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%s (vecflt_type) (7.9.8.1.18)
rho_tor (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%rho_tor (vecflt_type) (7.9.8.1.18)

psi (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%psi (vecflt_type) (7.9.8.1.18)
b_mod (4324)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%equatorial%b_mod (vecflt_type) (7.9.8.1.18)
temperature (4275)	distribution%distri_vec(:)%dist_func%f_expansion(:)%parameters%temperature (vecflt_type) (7.9.8.1.18)
codeparam (4297)	distribution%distri_vec(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	distribution%distri_vec(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	distribution%distri_vec(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	distribution%distri_vec(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	distribution%distri_vec(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	distribution%distri_vec(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4141)	distribution%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	distribution%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	distribution%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	distribution%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	distribution%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	distribution%codeparam%output_flag (integer) (7.9.8.1.3)
time (4141)	distribution%time (float) (7.9.8.1.2)

7.9.8.2.17 distsource

datainfo (4142)	distsource%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	distsource%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	distsource%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	distsource%datainfo%source (string) (7.9.8.1.4)
comment (4265)	distsource%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	distsource%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	distsource%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	distsource%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	distsource%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	distsource%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	distsource%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	distsource%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	distsource%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	distsource%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	distsource%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	distsource%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	distsource%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	distsource%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	distsource%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4142)	distsource%composition (composition) (7.9.8.1.123)
amn (4226)	distsource%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	distsource%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	distsource%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	distsource%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	distsource%composition%label (vecstring_type) (7.9.8.1.20)
compositions (4142)	distsource%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	distsource%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	distsource%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	distsource%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	distsource%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	distsource%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	distsource%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	distsource%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	distsource%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	distsource%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	distsource%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	distsource%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	distsource%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	distsource%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	distsource%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)

zmax (4368)	distsource%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	distsource%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	distsource%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	distsource%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	distsource%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	distsource%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	distsource%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	distsource%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	distsource%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	distsource%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	distsource%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	distsource%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	distsource%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	distsource%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	distsource%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	distsource%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	distsource%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	distsource%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	distsource%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	distsource%compositions%signature%description (string) (7.9.8.1.4)
source (4142)	distsource%source(:) (distsource_source) (7.9.8.1.199)
source_id (4302)	distsource%source(:)%source_id(:) (enum_instance) (7.9.8.1.216)
type (4319)	distsource%source(:)%source_id(:)%type (identifier) (7.9.8.1.263)
id (4366)	distsource%source(:)%source_id(:)%type%id (string) (7.9.8.1.4)
flag (4366)	distsource%source(:)%source_id(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	distsource%source(:)%source_id(:)%type%description (string) (7.9.8.1.4)
name (4319)	distsource%source(:)%source_id(:)%name (string) (7.9.8.1.4)
index (4319)	distsource%source(:)%source_id(:)%index (integer) (7.9.8.1.3)
species (4302)	distsource%source(:)%species (species_reference) (7.9.8.1.439)
type (4542)	distsource%source(:)%species%type (identifier) (7.9.8.1.263)
id (4366)	distsource%source(:)%species%type%id (string) (7.9.8.1.4)
flag (4366)	distsource%source(:)%species%type%flag (integer) (7.9.8.1.3)
description (4366)	distsource%source(:)%species%type%description (string) (7.9.8.1.4)
index (4542)	distsource%source(:)%species%index (integer) (7.9.8.1.3)
gyro_type (4302)	distsource%source(:)%gyro_type (integer) (7.9.8.1.3)
global_param (4302)	distsource%source(:)%global_param (distsource_global_param) (7.9.8.1.195)
src_pow (4298)	distsource%source(:)%global_param%src_pow (exp0D) (7.9.8.1.224)
value (4327)	distsource%source(:)%global_param%src_pow%value (float) (7.9.8.1.2)
abserror (4327)	distsource%source(:)%global_param%src_pow%abserror (float) (7.9.8.1.2)
relerror (4327)	distsource%source(:)%global_param%src_pow%relerror (float) (7.9.8.1.2)
src_rate (4298)	distsource%source(:)%global_param%src_rate (exp0D) (7.9.8.1.224)
value (4327)	distsource%source(:)%global_param%src_rate%value (float) (7.9.8.1.2)
abserror (4327)	distsource%source(:)%global_param%src_rate%abserror (float) (7.9.8.1.2)
relerror (4327)	distsource%source(:)%global_param%src_rate%relerror (float) (7.9.8.1.2)
mag_axis (4298)	distsource%source(:)%global_param%mag_axis (rz0D) (7.9.8.1.386)
r (4489)	distsource%source(:)%global_param%mag_axis%r (float) (7.9.8.1.2)
z (4489)	distsource%source(:)%global_param%mag_axis%z (float) (7.9.8.1.2)
toroid_field (4298)	distsource%source(:)%global_param%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	distsource%source(:)%global_param%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	distsource%source(:)%global_param%toroid_field%b0 (float) (7.9.8.1.2)
profiles_1d (4302)	distsource%source(:)%profiles_1d (distsource_profiles_1d) (7.9.8.1.197)
rho_tor (4300)	distsource%source(:)%profiles_1d%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4300)	distsource%source(:)%profiles_1d%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4300)	distsource%source(:)%profiles_1d%psi (vecflt_type) (7.9.8.1.18)
volume (4300)	distsource%source(:)%profiles_1d%volume (vecflt_type) (7.9.8.1.18)
area (4300)	distsource%source(:)%profiles_1d%area (vecflt_type) (7.9.8.1.18)
pow_den (4300)	distsource%source(:)%profiles_1d%pow_den (exp1D) (7.9.8.1.225)
value (4328)	distsource%source(:)%profiles_1d%pow_den%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	distsource%source(:)%profiles_1d%pow_den%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	distsource%source(:)%profiles_1d%pow_den%relerror (vecflt_type) (7.9.8.1.18)
trq_den (4300)	distsource%source(:)%profiles_1d%trq_den (exp1D) (7.9.8.1.225)

value (4328)	distsource%source(:)%profiles_1d%trq_den%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	distsource%source(:)%profiles_1d%trq_den%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	distsource%source(:)%profiles_1d%trq_den%relerror (vecflt_type) (7.9.8.1.18)
src_rate (4300)	distsource%source(:)%profiles_1d%src_rate (exp1D) (7.9.8.1.225)
value (4328)	distsource%source(:)%profiles_1d%src_rate%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	distsource%source(:)%profiles_1d%src_rate%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	distsource%source(:)%profiles_1d%src_rate%relerror (vecflt_type) (7.9.8.1.18)
profiles_2d (4302)	distsource%source(:)%profiles_2d (distsource_profiles_2d) (7.9.8.1.198)
grid_coord (4301)	distsource%source(:)%profiles_2d%grid_coord (vecint_type) (7.9.8.1.19)
dim1 (4301)	distsource%source(:)%profiles_2d%dim1 (matflt_type) (7.9.8.1.15)
dim2 (4301)	distsource%source(:)%profiles_2d%dim2 (matflt_type) (7.9.8.1.15)
g11 (4301)	distsource%source(:)%profiles_2d%g11 (matflt_type) (7.9.8.1.15)
g12 (4301)	distsource%source(:)%profiles_2d%g12 (matflt_type) (7.9.8.1.15)
g21 (4301)	distsource%source(:)%profiles_2d%g21 (matflt_type) (7.9.8.1.15)
g22 (4301)	distsource%source(:)%profiles_2d%g22 (matflt_type) (7.9.8.1.15)
pow_den (4301)	distsource%source(:)%profiles_2d%pow_den (exp2D) (7.9.8.1.226)
value (4329)	distsource%source(:)%profiles_2d%pow_den%value (matflt_type) (7.9.8.1.15)
abserror (4329)	distsource%source(:)%profiles_2d%pow_den%abserror (matflt_type) (7.9.8.1.15)
relerror (4329)	distsource%source(:)%profiles_2d%pow_den%relerror (matflt_type) (7.9.8.1.15)
src_rate (4301)	distsource%source(:)%profiles_2d%src_rate (exp2D) (7.9.8.1.226)
value (4329)	distsource%source(:)%profiles_2d%src_rate%value (matflt_type) (7.9.8.1.15)
abserror (4329)	distsource%source(:)%profiles_2d%src_rate%abserror (matflt_type) (7.9.8.1.15)
relerror (4329)	distsource%source(:)%profiles_2d%src_rate%relerror (matflt_type) (7.9.8.1.15)
line_srcprof (4302)	distsource%source(:)%line_srcprof(:) (distsource_line_src_prof) (7.9.8.1.196)
rho_tor (4299)	distsource%source(:)%line_srcprof(:)%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4299)	distsource%source(:)%line_srcprof(:)%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4299)	distsource%source(:)%line_srcprof(:)%psi (vecflt_type) (7.9.8.1.18)
R (4299)	distsource%source(:)%line_srcprof(:)%R (vecflt_type) (7.9.8.1.18)
Z (4299)	distsource%source(:)%line_srcprof(:)%Z (vecflt_type) (7.9.8.1.18)
theta (4299)	distsource%source(:)%line_srcprof(:)%theta (vecflt_type) (7.9.8.1.18)
theta_id (4299)	distsource%source(:)%line_srcprof(:)%theta_id (vecflt_type) (7.9.8.1.18)
th2th_pol (4299)	distsource%source(:)%line_srcprof(:)%th2th_pol (matflt_type) (7.9.8.1.15)
pitch (4299)	distsource%source(:)%line_srcprof(:)%pitch (vecflt_type) (7.9.8.1.18)
energy (4299)	distsource%source(:)%line_srcprof(:)%energy (vecflt_type) (7.9.8.1.18)
ang_momentum (4299)	distsource%source(:)%line_srcprof(:)%ang_momentum (vecflt_type) (7.9.8.1.18)
src_rate (4299)	distsource%source(:)%line_srcprof(:)%src_rate (vecflt_type) (7.9.8.1.18)
source_rate (4302)	distsource%source(:)%source_rate (source_rate) (7.9.8.1.433)
grid (4536)	distsource%source(:)%source_rate%grid (complexgrid) (7.9.8.1.110)
uid (4213)	distsource%source(:)%source_rate%grid%uid (integer) (7.9.8.1.3)
id (4213)	distsource%source(:)%source_rate%grid%id (string) (7.9.8.1.4)
spaces (4213)	distsource%source(:)%source_rate%grid%spaces(:) (complexgrid_space) (7.9.8.1.119)
geotype (4222)	distsource%source(:)%source_rate%grid%spaces(:)%geotype (vecint_type) (7.9.8.1.19)
geotypeid (4222)	distsource%source(:)%source_rate%grid%spaces(:)%geotypeid (vecstring_type) (7.9.8.1.20)
coordtype (4222)	distsource%source(:)%source_rate%grid%spaces(:)%coordtype (matint_type) (7.9.8.1.16)
objects (4222)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:) (objects) (7.9.8.1.328)
boundary (4431)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.8.1.16)
neighbour (4431)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.8.1.8)
geo (4431)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.8.1.9)
measure (4431)	distsource%source(:)%source_rate%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.8.1.15)
xpoints (4222)	distsource%source(:)%source_rate%grid%spaces(:)%xpoints (vecint_type) (7.9.8.1.19)
subgrids (4213)	distsource%source(:)%source_rate%grid%subgrids(:) (complexgrid_subgrid) (7.9.8.1.120)
id (4223)	distsource%source(:)%source_rate%grid%subgrids(:)%id (string) (7.9.8.1.4)
list (4223)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.8.1.114)
cls (4217)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.8.1.19)
indset (4217)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.8.1.112)
range (4215)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.8.1.19)

ind (4215)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.8.1.19)
ind (4217)	distsource%source(:)%source_rate%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.8.1.16)
metric (4213)	distsource%source(:)%source_rate%grid%metric (complexgrid_metric) (7.9.8.1.113)
measure (4216)	distsource%source(:)%source_rate%grid%metric%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
g11 (4216)	distsource%source(:)%source_rate%grid%metric%g11(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g11(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g11(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g11(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g11(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.8.1.7)
g12 (4216)	distsource%source(:)%source_rate%grid%metric%g12(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g12(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g12(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g12(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g12(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.8.1.7)
g13 (4216)	distsource%source(:)%source_rate%grid%metric%g13(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g13(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g13(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g13(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g13(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.8.1.7)
g22 (4216)	distsource%source(:)%source_rate%grid%metric%g22(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g22(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g22(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g22(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g22(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.8.1.7)
g23 (4216)	distsource%source(:)%source_rate%grid%metric%g23(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g23(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g23(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g23(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g23(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.8.1.7)
g33 (4216)	distsource%source(:)%source_rate%grid%metric%g33(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%g33(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%g33(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%g33(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%g33(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.8.1.7)
jacobian (4216)	distsource%source(:)%source_rate%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.8.1.7)
geo (4213)	distsource%source(:)%source_rate%grid%geo(:) (complexgrid_geo_global) (7.9.8.1.111)
geotype (4214)	distsource%source(:)%source_rate%grid%geo(:)%geotype (integer) (7.9.8.1.3)
geotypeid (4214)	distsource%source(:)%source_rate%grid%geo(:)%geotypeid (string) (7.9.8.1.4)
coordtype (4214)	distsource%source(:)%source_rate%grid%geo(:)%coordtype (vecint_type) (7.9.8.1.19)
geo_matrix (4214)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.8.1.3)

subgrid (4218)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.8.1.7)
measure (4214)	distsource%source(:)%source_rate%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
bases (4213)	distsource%source(:)%source_rate%grid%bases(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	distsource%source(:)%source_rate%grid%bases(:)%griduid (integer) (7.9.8.1.3)
label (4224)	distsource%source(:)%source_rate%grid%bases(:)%label (string) (7.9.8.1.4)
comp (4224)	distsource%source(:)%source_rate%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	distsource%source(:)%source_rate%grid%bases(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	distsource%source(:)%source_rate%grid%bases(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	distsource%source(:)%source_rate%grid%bases(:)%basis (integer) (7.9.8.1.3)
value (4536)	distsource%source(:)%source_rate%value (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	distsource%source(:)%source_rate%value%griduid (integer) (7.9.8.1.3)
subgrid (4218)	distsource%source(:)%source_rate%value%subgrid (integer) (7.9.8.1.3)
scalar (4218)	distsource%source(:)%source_rate%value%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	distsource%source(:)%source_rate%value%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	distsource%source(:)%source_rate%value%matrix (array3dflt_type) (7.9.8.1.7)
discrete (4536)	distsource%source(:)%source_rate%discrete (vecint_type) (7.9.8.1.19)
parameters (4536)	distsource%source(:)%source_rate%parameters (parameters) (7.9.8.1.339)
equatorial (4442)	distsource%source(:)%source_rate%parameters%equatorial (equatorial_plane) (7.9.8.1.221)
r (4324)	distsource%source(:)%source_rate%parameters%equatorial%r (vecflt_type) (7.9.8.1.18)
z (4324)	distsource%source(:)%source_rate%parameters%equatorial%z (vecflt_type) (7.9.8.1.18)
s (4324)	distsource%source(:)%source_rate%parameters%equatorial%s (vecflt_type) (7.9.8.1.18)
rho_tor (4324)	distsource%source(:)%source_rate%parameters%equatorial%rho_tor (vecflt_type) (7.9.8.1.18)
psi (4324)	distsource%source(:)%source_rate%parameters%equatorial%psi (vecflt_type) (7.9.8.1.18)
b_mod (4324)	distsource%source(:)%source_rate%parameters%equatorial%b_mod (vecflt_type) (7.9.8.1.18)
markers (4302)	distsource%source(:)%markers (weighted_markers) (7.9.8.1.533)
variable_ids (4636)	distsource%source(:)%markers%variable_ids(:) (identifier) (7.9.8.1.263)
id (4366)	distsource%source(:)%markers%variable_ids(:)%id (string) (7.9.8.1.4)
flag (4366)	distsource%source(:)%markers%variable_ids(:)%flag (integer) (7.9.8.1.3)
description (4366)	distsource%source(:)%markers%variable_ids(:)%description (string) (7.9.8.1.4)
coord (4636)	distsource%source(:)%markers%coord (matflt_type) (7.9.8.1.15)
weight (4636)	distsource%source(:)%markers%weight (vecflt_type) (7.9.8.1.18)
codeparam (4302)	distsource%source(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	distsource%source(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	distsource%source(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	distsource%source(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	distsource%source(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	distsource%source(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4142)	distsource%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	distsource%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	distsource%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	distsource%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	distsource%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	distsource%codeparam%output_flag (integer) (7.9.8.1.3)
time (4142)	distsource%time (float) (7.9.8.1.2)

7.9.8.2.18 ecediag

datainfo (4143)	ecediag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	ecediag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	ecediag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	ecediag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	ecediag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	ecediag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	ecediag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	ecediag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	ecediag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	ecediag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	ecediag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	ecediag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	ecediag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	ecediag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	ecediag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	ecediag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	ecediag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	ecediag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	ecediag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4143)	ecediag%setup (ecesetup) (7.9.8.1.203)
frequency (4306)	ecediag%setup%frequency (vecflt_type) (7.9.8.1.18)
los (4306)	ecediag%setup%los (setup_line_exp) (7.9.8.1.425)
pivot_point (4528)	ecediag%setup%los%pivot_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	ecediag%setup%los%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	ecediag%setup%los%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	ecediag%setup%los%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4528)	ecediag%setup%los%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4528)	ecediag%setup%los%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4528)	ecediag%setup%los%width (vecflt_type) (7.9.8.1.18)
second_point (4528)	ecediag%setup%los%second_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	ecediag%setup%los%second_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	ecediag%setup%los%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	ecediag%setup%los%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4528)	ecediag%setup%los%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4528)	ecediag%setup%los%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4528)	ecediag%setup%los%third_point (rzphi1Dexperimental) (7.9.8.1.395)
r (4498)	ecediag%setup%los%third_point%r (vecflt_type) (7.9.8.1.18)
z (4498)	ecediag%setup%los%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4498)	ecediag%setup%los%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4528)	ecediag%setup%los%nchordpoints (integer) (7.9.8.1.3)
measure (4143)	ecediag%measure (ecemeasure) (7.9.8.1.202)
harmonic (4305)	ecediag%measure%harmonic (integer) (7.9.8.1.3)
position (4305)	ecediag%measure%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	ecediag%measure%position%r (exp1D) (7.9.8.1.225)
value (4328)	ecediag%measure%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ecediag%measure%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ecediag%measure%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	ecediag%measure%position%z (exp1D) (7.9.8.1.225)
value (4328)	ecediag%measure%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ecediag%measure%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ecediag%measure%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	ecediag%measure%position%phi (exp1D) (7.9.8.1.225)
value (4328)	ecediag%measure%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ecediag%measure%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ecediag%measure%position%phi%relerror (vecflt_type) (7.9.8.1.18)
te (4305)	ecediag%measure%te (exp1D) (7.9.8.1.225)
value (4328)	ecediag%measure%te%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ecediag%measure%te%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ecediag%measure%te%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4143)	ecediag%codeparam (codeparam) (7.9.8.1.105)

codename (4208)	ecediag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	ecediag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	ecediag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	ecediag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	ecediag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4143)	ecediag%time (float) (7.9.8.1.2)

7.9.8.2.19 edge

datainfo (4144)	edge%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	edge%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	edge%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	edge%datainfo%source (string) (7.9.8.1.4)
comment (4265)	edge%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	edge%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	edge%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	edge%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	edge%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	edge%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	edge%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	edge%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	edge%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	edge%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	edge%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	edge%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	edge%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	edge%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	edge%datainfo%putinfo%rights (string) (7.9.8.1.4)
grid (4144)	edge%grid (complexgrid) (7.9.8.1.110)
uid (4213)	edge%grid%uid (integer) (7.9.8.1.3)
id (4213)	edge%grid%id (string) (7.9.8.1.4)
spaces (4213)	edge%grid%spaces(:) (complexgrid_space) (7.9.8.1.119)
geotype (4222)	edge%grid%spaces(:)%geotype (vecint_type) (7.9.8.1.19)
geotypeid (4222)	edge%grid%spaces(:)%geotypeid (vecstring_type) (7.9.8.1.20)
coordtype (4222)	edge%grid%spaces(:)%coordtype (matint_type) (7.9.8.1.16)
objects (4222)	edge%grid%spaces(:)%objects(:) (objects) (7.9.8.1.328)
boundary (4431)	edge%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.8.1.16)
neighbour (4431)	edge%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.8.1.8)
geo (4431)	edge%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.8.1.9)
measure (4431)	edge%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.8.1.15)
xpoints (4222)	edge%grid%spaces(:)%xpoints (vecint_type) (7.9.8.1.19)
subgrids (4213)	edge%grid%subgrids(:) (complexgrid_subgrid) (7.9.8.1.120)
id (4223)	edge%grid%subgrids(:)%id (string) (7.9.8.1.4)
list (4223)	edge%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.8.1.114)
cls (4217)	edge%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.8.1.19)
indset (4217)	edge%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.8.1.112)
range (4215)	edge%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.8.1.19)
ind (4215)	edge%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.8.1.19)
ind (4217)	edge%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.8.1.16)
metric (4213)	edge%grid%metric (complexgrid_metric) (7.9.8.1.113)
measure (4216)	edge%grid%metric%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
g11 (4216)	edge%grid%metric%g11(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g11(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g11(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g11(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g11(:)%vector (matflt_type) (7.9.8.1.15)

matrix (4218)	edge%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.8.1.7)
g12 (4216)	edge%grid%metric%g12(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g12(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g12(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g12(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g12(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.8.1.7)
g13 (4216)	edge%grid%metric%g13(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g13(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g13(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g13(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g13(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.8.1.7)
g22 (4216)	edge%grid%metric%g22(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g22(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g22(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g22(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g22(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.8.1.7)
g23 (4216)	edge%grid%metric%g23(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g23(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g23(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g23(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g23(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.8.1.7)
g33 (4216)	edge%grid%metric%g33(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%g33(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%g33(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%g33(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%g33(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.8.1.7)
jacobian (4216)	edge%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%metric%jacobian(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%metric%jacobian(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%metric%jacobian(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.8.1.7)
geo (4213)	edge%grid%geo(:) (complexgrid_geo_global) (7.9.8.1.111)
geotype (4214)	edge%grid%geo(:)%geotype (integer) (7.9.8.1.3)
geotypeid (4214)	edge%grid%geo(:)%geotypeid (string) (7.9.8.1.4)
coordtype (4214)	edge%grid%geo(:)%coordtype (vecint_type) (7.9.8.1.19)
geo_matrix (4214)	edge%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.8.1.7)
measure (4214)	edge%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%geo(:)%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%geo(:)%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
bases (4213)	edge%grid%bases(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%grid%bases(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%grid%bases(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%grid%bases(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%grid%bases(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)

matrix (4218)	edge%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%grid%bases(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%grid%bases(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%grid%bases(:)%basis (integer) (7.9.8.1.3)
species (4144)	edge%species(:) (species_desc) (7.9.8.1.438)
label (4541)	edge%species(:)%label (string) (7.9.8.1.4)
amn (4541)	edge%species(:)%amn (float) (7.9.8.1.2)
zn (4541)	edge%species(:)%zn (float) (7.9.8.1.2)
zmin (4541)	edge%species(:)%zmin (float) (7.9.8.1.2)
zmax (4541)	edge%species(:)%zmax (float) (7.9.8.1.2)
compositions (4144)	edge%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	edge%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	edge%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	edge%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	edge%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	edge%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	edge%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	edge%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	edge%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	edge%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	edge%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	edge%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	edge%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	edge%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	edge%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	edge%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	edge%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	edge%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	edge%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	edge%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	edge%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	edge%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	edge%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	edge%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	edge%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	edge%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	edge%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	edge%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	edge%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	edge%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	edge%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	edge%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	edge%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	edge%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	edge%compositions%signature%description (string) (7.9.8.1.4)
fluid (4144)	edge%fluid (edge_fluid) (7.9.8.1.204)
ne (4307)	edge%fluid%ne (edge_fluid_scalar_simplestruct) (7.9.8.1.206)
value (4309)	edge%fluid%ne%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4309)	edge%fluid%ne%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4309)	edge%fluid%ne%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ne%flux(:)%griduid (integer) (7.9.8.1.3)

label (4224)	edge%fluid%ne%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ne%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ne%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ne%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ne%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4309)	edge%fluid%ne%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ne%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ne%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ne%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ne%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ne%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ne%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4309)	edge%fluid%ne%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%ne%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ne%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ne%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ne%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ne%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%ne%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ne%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ne%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ne%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ne%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4309)	edge%fluid%ne%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ne%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ne%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ne%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ne%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ne%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
ni (4307)	edge%fluid%ni(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%ni(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%ni(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)

matrix (4218)	edge%fluid%ni(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%ni(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ni(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ni(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ni(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ni(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ni(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ni(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%ni(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ni(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ni(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ni(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ni(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ni(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ni(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%ni(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%ni(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ni(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ni(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ni(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%ni(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ni(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ni(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ni(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%ni(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ni(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ni(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ni(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ni(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ni(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
ve (4307)	edge%fluid%ve (edge_fluid_vector_simplestruct) (7.9.8.1.209)
griduid (4312)	edge%fluid%ve%griduid (integer) (7.9.8.1.3)
basis (4312)	edge%fluid%ve%basis (integer) (7.9.8.1.3)
comps (4312)	edge%fluid%ve%comps(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%ve%comps(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%value(:)%vector (matflt_type) (7.9.8.1.15)

matrix (4218)	edge%fluid%ve%comps(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%ve%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%ve%comps(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ve%comps(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ve%comps(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ve%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ve%comps(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ve%comps(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ve%comps(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%ve%comps(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ve%comps(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ve%comps(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ve%comps(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ve%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ve%comps(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%ve%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%ve%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%ve%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ve%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%ve%comps(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ve%comps(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ve%comps(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ve%comps(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ve%comps(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ve%comps(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4312)	edge%fluid%ve%align (vecint_type) (7.9.8.1.19)
alignid (4312)	edge%fluid%ve%alignid (vecstring_type) (7.9.8.1.20)
vi (4307)	edge%fluid%vi(:) (edge_fluid_vector) (7.9.8.1.208)

griduid (4311)	edge%fluid%vi(:)%griduid (integer) (7.9.8.1.3)
basis (4311)	edge%fluid%vi(:)%basis (integer) (7.9.8.1.3)
align (4311)	edge%fluid%vi(:)%align (vecint_type) (7.9.8.1.19)
alignid (4311)	edge%fluid%vi(:)%alignid (vecstring_type) (7.9.8.1.20)
comps (4311)	edge%fluid%vi(:)%comps(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%vi(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%vi(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%vi(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%vi(:)%comps(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%vi(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%vi(:)%comps(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%vi(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)

align (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%vi(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%vi(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%vi(:)%comps(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%vi(:)%comps(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%vi(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%vi(:)%comps(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%vi(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
te (4307)	edge%fluid%te (edge_fluid_scalar_simplestruct) (7.9.8.1.206)
value (4309)	edge%fluid%te%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4309)	edge%fluid%te%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4309)	edge%fluid%te%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%te%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%te%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%te%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%te%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%te%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%te%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4309)	edge%fluid%te%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%te%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%te%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%te%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%te%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%te%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%te%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4309)	edge%fluid%te%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%te%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%te%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%te%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%te%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%te%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%te%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%te%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%te%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)

scalar (4218)	edge%fluid%te%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%te%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%te%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4309)	edge%fluid%te%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
ti (4307)	edge%fluid%ti(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%ti(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%ti(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%ti(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ti(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ti(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ti(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ti(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ti(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ti(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%ti(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ti(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ti(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ti(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ti(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ti(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ti(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%ti(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%ti(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ti(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ti(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ti(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%ti(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ti(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)

comp (4225)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ti(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ti(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%ti(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
te_aniso (4307)	edge%fluid%te_aniso (edge_fluid_vector_simplestruct) (7.9.8.1.209)
griduid (4312)	edge%fluid%te_aniso%griduid (integer) (7.9.8.1.3)
basis (4312)	edge%fluid%te_aniso%basis (integer) (7.9.8.1.3)
comps (4312)	edge%fluid%te_aniso%comps(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%te_aniso%comps(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%te_aniso%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%te_aniso%comps(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%te_aniso%comps(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%te_aniso%comps(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%te_aniso%comps(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%te_aniso%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)

scalar (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%te_aniso%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%te_aniso%comps(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%te_aniso%comps(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%te_aniso%comps(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%te_aniso%comps(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%te_aniso%comps(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%te_aniso%comps(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4312)	edge%fluid%te_aniso%align (vecint_type) (7.9.8.1.19)
alignid (4312)	edge%fluid%te_aniso%alignid (vecstring_type) (7.9.8.1.20)
ti_aniso (4307)	edge%fluid%ti_aniso(:) (edge_fluid_vector) (7.9.8.1.208)
griduid (4311)	edge%fluid%ti_aniso(:)%griduid (integer) (7.9.8.1.3)
basis (4311)	edge%fluid%ti_aniso(:)%basis (integer) (7.9.8.1.3)
align (4311)	edge%fluid%ti_aniso(:)%align (vecint_type) (7.9.8.1.19)
alignid (4311)	edge%fluid%ti_aniso(:)%alignid (vecstring_type) (7.9.8.1.20)
comps (4311)	edge%fluid%ti_aniso(:)%comps(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%ti_aniso(:)%comps(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%ti_aniso(:)%comps(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ti_aniso(:)%comps(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)

scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%ti_aniso(:)%comps(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%ti_aniso(:)%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%ti_aniso(:)%comps(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%ti_aniso(:)%comps(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
po (4307)	edge%fluid%po (edge_fluid_scalar_simplestruct) (7.9.8.1.206)
value (4309)	edge%fluid%po%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4309)	edge%fluid%po%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4309)	edge%fluid%po%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%po%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%po%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%po%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%po%flux(:)%align (vecint_type) (7.9.8.1.19)

alignid (4224)	edge%fluid%po%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%po%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4309)	edge%fluid%po%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%po%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%po%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%po%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%po%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%po%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%po%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4309)	edge%fluid%po%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%po%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%po%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%po%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%po%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%po%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%po%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%po%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%po%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%po%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%po%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4309)	edge%fluid%po%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%po%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%po%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%po%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%po%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%po%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
j (4307)	edge%fluid%j (edge_fluid_vector_simplestruct) (7.9.8.1.209)
griduid (4312)	edge%fluid%j%griduid (integer) (7.9.8.1.3)
basis (4312)	edge%fluid%j%basis (integer) (7.9.8.1.3)
comps (4312)	edge%fluid%j%comps(:) (edge_fluid_scalar) (7.9.8.1.205)
value (4308)	edge%fluid%j%comps(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4308)	edge%fluid%j%comps(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
flux (4308)	edge%fluid%j%comps(:)%flux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%j%comps(:)%flux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%j%comps(:)%flux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%j%comps(:)%flux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)

griduid (4218)	edge%fluid%j%comps(:)%flux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%flux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%flux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%flux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%flux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%j%comps(:)%flux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%j%comps(:)%flux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%j%comps(:)%flux(:)%basis (integer) (7.9.8.1.3)
bndflux (4308)	edge%fluid%j%comps(:)%bndflux(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%j%comps(:)%bndflux(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%j%comps(:)%bndflux(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%j%comps(:)%bndflux(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%bndflux(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%j%comps(:)%bndflux(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%j%comps(:)%bndflux(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%j%comps(:)%bndflux(:)%basis (integer) (7.9.8.1.3)
transpcoeff (4308)	edge%fluid%j%comps(:)%transpcoeff(:) (edge_fluid_scalar_transpcoeff) (7.9.8.1.207)
d (4310)	edge%fluid%j%comps(:)%transpcoeff(:)%d (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%d%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%d%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%d%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%d%alignid (vecstring_type) (7.9.8.1.20)
v (4310)	edge%fluid%j%comps(:)%transpcoeff(:)%v (complexgrid_vector_simplestruct) (7.9.8.1.122)
label (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%v%label (string) (7.9.8.1.4)
comp (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%transpcoeff(:)%v%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%v%align (vecint_type) (7.9.8.1.19)
alignid (4225)	edge%fluid%j%comps(:)%transpcoeff(:)%v%alignid (vecstring_type) (7.9.8.1.20)
source (4308)	edge%fluid%j%comps(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%j%comps(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%j%comps(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%j%comps(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%j%comps(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%j%comps(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4312)	edge%fluid%j%align (vecint_type) (7.9.8.1.19)
alignid (4312)	edge%fluid%j%alignid (vecstring_type) (7.9.8.1.20)
b (4307)	edge%fluid%b(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%fluid%b(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%fluid%b(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%fluid%b(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%fluid%b(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%fluid%b(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%fluid%b(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%fluid%b(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%fluid%b(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%fluid%b(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%fluid%b(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%fluid%b(:)%basis (integer) (7.9.8.1.3)

kinetic (4144)	edge%kinetic (edge_kinetic) (7.9.8.1.210)
f (4313)	edge%kinetic%f(:) (edge_kinetic_distribution) (7.9.8.1.211)
value (4314)	edge%kinetic%f(:)%value(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%kinetic%f(:)%value(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%kinetic%f(:)%value(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%kinetic%f(:)%value(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%kinetic%f(:)%value(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%kinetic%f(:)%value(:)%matrix (array3dflt_type) (7.9.8.1.7)
bndvalue (4314)	edge%kinetic%f(:)%bndvalue(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%kinetic%f(:)%bndvalue(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%kinetic%f(:)%bndvalue(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%kinetic%f(:)%bndvalue(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%kinetic%f(:)%bndvalue(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%kinetic%f(:)%bndvalue(:)%matrix (array3dflt_type) (7.9.8.1.7)
fluxes (4314)	edge%kinetic%f(:)%fluxes(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	edge%kinetic%f(:)%fluxes(:)%griduid (integer) (7.9.8.1.3)
label (4224)	edge%kinetic%f(:)%fluxes(:)%label (string) (7.9.8.1.4)
comp (4224)	edge%kinetic%f(:)%fluxes(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%kinetic%f(:)%fluxes(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%kinetic%f(:)%fluxes(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%kinetic%f(:)%fluxes(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%kinetic%f(:)%fluxes(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%kinetic%f(:)%fluxes(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	edge%kinetic%f(:)%fluxes(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	edge%kinetic%f(:)%fluxes(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	edge%kinetic%f(:)%fluxes(:)%basis (integer) (7.9.8.1.3)
source (4314)	edge%kinetic%f(:)%source(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	edge%kinetic%f(:)%source(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	edge%kinetic%f(:)%source(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	edge%kinetic%f(:)%source(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	edge%kinetic%f(:)%source(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	edge%kinetic%f(:)%source(:)%matrix (array3dflt_type) (7.9.8.1.7)
codeparam (4144)	edge%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	edge%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	edge%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	edge%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	edge%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	edge%codeparam%output_flag (integer) (7.9.8.1.3)
time (4144)	edge%time (float) (7.9.8.1.2)

7.9.8.2.20 efcc

datainfo (4145)	efcc%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	efcc%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	efcc%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	efcc%datainfo%source (string) (7.9.8.1.4)
comment (4265)	efcc%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	efcc%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	efcc%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	efcc%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	efcc%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	efcc%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	efcc%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	efcc%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	efcc%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	efcc%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	efcc%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	efcc%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	efcc%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	efcc%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	efcc%datainfo%putinfo%rights (string) (7.9.8.1.4)

coil (4145)	efcc%coil(:) (coil) (7.9.8.1.108)
desc_coils (4211)	efcc%coil(:)%desc_coils (desc_coils) (7.9.8.1.163)
name (4266)	efcc%coil(:)%desc_coils%name (string) (7.9.8.1.4)
res (4266)	efcc%coil(:)%desc_coils%res (float) (7.9.8.1.2)
nturns (4266)	efcc%coil(:)%desc_coils%nturns (integer) (7.9.8.1.3)
closed (4266)	efcc%coil(:)%desc_coils%closed (string) (7.9.8.1.4)
edges (4266)	efcc%coil(:)%desc_coils%edges(:) (edges) (7.9.8.1.212)
edge_rzphi (4315)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi (rzphi1D) (7.9.8.1.393)
r (4496)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%r (vecflt_type) (7.9.8.1.18)
z (4496)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%z (vecflt_type) (7.9.8.1.18)
phi (4496)	efcc%coil(:)%desc_coils%edges(:)%edge_rzphi%phi (vecflt_type) (7.9.8.1.18)
coilcurrent (4211)	efcc%coil(:)%coilcurrent (exp1D) (7.9.8.1.225)
value (4328)	efcc%coil(:)%coilcurrent%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	efcc%coil(:)%coilcurrent%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	efcc%coil(:)%coilcurrent%relerror (vecflt_type) (7.9.8.1.18)
coilvoltage (4211)	efcc%coil(:)%coilvoltage (exp1D) (7.9.8.1.225)
value (4328)	efcc%coil(:)%coilvoltage%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	efcc%coil(:)%coilvoltage%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	efcc%coil(:)%coilvoltage%relerror (vecflt_type) (7.9.8.1.18)
time (4145)	efcc%time (float) (7.9.8.1.2)
codeparam (4145)	efcc%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	efcc%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	efcc%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	efcc%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	efcc%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	efcc%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.21 equilibrium

datainfo (4146)	equilibrium%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	equilibrium%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	equilibrium%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	equilibrium%datainfo%source (string) (7.9.8.1.4)
comment (4265)	equilibrium%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	equilibrium%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	equilibrium%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	equilibrium%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	equilibrium%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	equilibrium%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	equilibrium%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	equilibrium%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	equilibrium%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	equilibrium%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	equilibrium%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	equilibrium%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	equilibrium%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	equilibrium%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	equilibrium%datainfo%putinfo%rights (string) (7.9.8.1.4)
eqconstraint (4146)	equilibrium%eqconstraint (eqconstraint) (7.9.8.1.217)
bpol (4320)	equilibrium%eqconstraint%bpol (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%bpol%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%bpol%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%bpol%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%bpol%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%bpol%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%bpol%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%bpol%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%bpol%chi2 (vecflt_type) (7.9.8.1.18)
bvac_r (4320)	equilibrium%eqconstraint%bvac_r (eqmes0D) (7.9.8.1.219)
measured (4322)	equilibrium%eqconstraint%bvac_r%measured (float) (7.9.8.1.2)
source (4322)	equilibrium%eqconstraint%bvac_r%source (string) (7.9.8.1.4)

time (4322)	equilibrium%eqconstraint%bvac_r%time (float) (7.9.8.1.2)
exact (4322)	equilibrium%eqconstraint%bvac_r%exact (integer) (7.9.8.1.3)
weight (4322)	equilibrium%eqconstraint%bvac_r%weight (float) (7.9.8.1.2)
sigma (4322)	equilibrium%eqconstraint%bvac_r%sigma (float) (7.9.8.1.2)
calculated (4322)	equilibrium%eqconstraint%bvac_r%calculated (float) (7.9.8.1.2)
chi2 (4322)	equilibrium%eqconstraint%bvac_r%chi2 (float) (7.9.8.1.2)
diamagflux (4320)	equilibrium%eqconstraint%diamagflux (eqmes0D) (7.9.8.1.219)
measured (4322)	equilibrium%eqconstraint%diamagflux%measured (float) (7.9.8.1.2)
source (4322)	equilibrium%eqconstraint%diamagflux%source (string) (7.9.8.1.4)
time (4322)	equilibrium%eqconstraint%diamagflux%time (float) (7.9.8.1.2)
exact (4322)	equilibrium%eqconstraint%diamagflux%exact (integer) (7.9.8.1.3)
weight (4322)	equilibrium%eqconstraint%diamagflux%weight (float) (7.9.8.1.2)
sigma (4322)	equilibrium%eqconstraint%diamagflux%sigma (float) (7.9.8.1.2)
calculated (4322)	equilibrium%eqconstraint%diamagflux%calculated (float) (7.9.8.1.2)
chi2 (4322)	equilibrium%eqconstraint%diamagflux%chi2 (float) (7.9.8.1.2)
faraday (4320)	equilibrium%eqconstraint%faraday (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%faraday%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%faraday%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%faraday%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%faraday%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%faraday%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%faraday%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%faraday%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%faraday%chi2 (vecflt_type) (7.9.8.1.18)
flux (4320)	equilibrium%eqconstraint%flux (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%flux%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%flux%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%flux%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%flux%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%flux%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%flux%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%flux%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%flux%chi2 (vecflt_type) (7.9.8.1.18)
i_plasma (4320)	equilibrium%eqconstraint%i_plasma (eqmes0D) (7.9.8.1.219)
measured (4322)	equilibrium%eqconstraint%i_plasma%measured (float) (7.9.8.1.2)
source (4322)	equilibrium%eqconstraint%i_plasma%source (string) (7.9.8.1.4)
time (4322)	equilibrium%eqconstraint%i_plasma%time (float) (7.9.8.1.2)
exact (4322)	equilibrium%eqconstraint%i_plasma%exact (integer) (7.9.8.1.3)
weight (4322)	equilibrium%eqconstraint%i_plasma%weight (float) (7.9.8.1.2)
sigma (4322)	equilibrium%eqconstraint%i_plasma%sigma (float) (7.9.8.1.2)
calculated (4322)	equilibrium%eqconstraint%i_plasma%calculated (float) (7.9.8.1.2)
chi2 (4322)	equilibrium%eqconstraint%i_plasma%chi2 (float) (7.9.8.1.2)
isoflux (4320)	equilibrium%eqconstraint%isoflux (isoflux) (7.9.8.1.269)
position (4372)	equilibrium%eqconstraint%isoflux%position (rz1D) (7.9.8.1.387)
r (4490)	equilibrium%eqconstraint%isoflux%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	equilibrium%eqconstraint%isoflux%position%z (vecflt_type) (7.9.8.1.18)
source (4372)	equilibrium%eqconstraint%isoflux%source (string) (7.9.8.1.4)
weight (4372)	equilibrium%eqconstraint%isoflux%weight (vecflt_type) (7.9.8.1.18)
sigma (4372)	equilibrium%eqconstraint%isoflux%sigma (vecflt_type) (7.9.8.1.18)
calculated (4372)	equilibrium%eqconstraint%isoflux%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4372)	equilibrium%eqconstraint%isoflux%chi2 (vecflt_type) (7.9.8.1.18)
jsurf (4320)	equilibrium%eqconstraint%jsurf (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%jsurf%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%jsurf%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%jsurf%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%jsurf%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%jsurf%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%jsurf%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%jsurf%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%jsurf%chi2 (vecflt_type) (7.9.8.1.18)
magnet_iron (4320)	equilibrium%eqconstraint%magnet_iron (magnet_iron) (7.9.8.1.287)

mr (4390)	equilibrium%eqconstraint%magnet_iron%mr (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%magnet_iron%mr%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%magnet_iron%mr%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%magnet_iron%mr%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%magnet_iron%mr%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%magnet_iron%mr%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%magnet_iron%mr%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%magnet_iron%mr%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%magnet_iron%mr%chi2 (vecflt_type) (7.9.8.1.18)
mz (4390)	equilibrium%eqconstraint%magnet_iron%mz (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%magnet_iron%mz%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%magnet_iron%mz%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%magnet_iron%mz%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%magnet_iron%mz%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%magnet_iron%mz%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%magnet_iron%mz%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%magnet_iron%mz%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%magnet_iron%mz%chi2 (vecflt_type) (7.9.8.1.18)
mse (4320)	equilibrium%eqconstraint%mse (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%mse%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%mse%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%mse%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%mse%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%mse%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%mse%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%mse%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%mse%chi2 (vecflt_type) (7.9.8.1.18)
ne (4320)	equilibrium%eqconstraint%ne (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%ne%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%ne%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%ne%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%ne%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%ne%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%ne%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%ne%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%ne%chi2 (vecflt_type) (7.9.8.1.18)
pfcurrent (4320)	equilibrium%eqconstraint%pfcurrent (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%pfcurrent%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%pfcurrent%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%pfcurrent%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%pfcurrent%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%pfcurrent%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%pfcurrent%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%pfcurrent%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%pfcurrent%chi2 (vecflt_type) (7.9.8.1.18)
pressure (4320)	equilibrium%eqconstraint%pressure (eqmes1D) (7.9.8.1.220)
measured (4323)	equilibrium%eqconstraint%pressure%measured (vecflt_type) (7.9.8.1.18)
source (4323)	equilibrium%eqconstraint%pressure%source (string) (7.9.8.1.4)
time (4323)	equilibrium%eqconstraint%pressure%time (float) (7.9.8.1.2)
exact (4323)	equilibrium%eqconstraint%pressure%exact (vecint_type) (7.9.8.1.19)
weight (4323)	equilibrium%eqconstraint%pressure%weight (vecflt_type) (7.9.8.1.18)
sigma (4323)	equilibrium%eqconstraint%pressure%sigma (vecflt_type) (7.9.8.1.18)
calculated (4323)	equilibrium%eqconstraint%pressure%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4323)	equilibrium%eqconstraint%pressure%chi2 (vecflt_type) (7.9.8.1.18)
q (4320)	equilibrium%eqconstraint%q (q) (7.9.8.1.371)
qvalue (4474)	equilibrium%eqconstraint%q%qvalue (vecflt_type) (7.9.8.1.18)
position (4474)	equilibrium%eqconstraint%q%position (rz1D) (7.9.8.1.387)
r (4490)	equilibrium%eqconstraint%q%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	equilibrium%eqconstraint%q%position%z (vecflt_type) (7.9.8.1.18)
source (4474)	equilibrium%eqconstraint%q%source (string) (7.9.8.1.4)
exact (4474)	equilibrium%eqconstraint%q%exact (integer) (7.9.8.1.3)

weight (4474)	equilibrium%eqconstraint%q%weight (vecflt_type) (7.9.8.1.18)
sigma (4474)	equilibrium%eqconstraint%q%sigma (vecflt_type) (7.9.8.1.18)
calculated (4474)	equilibrium%eqconstraint%q%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4474)	equilibrium%eqconstraint%q%chi2 (vecflt_type) (7.9.8.1.18)
xpts (4320)	equilibrium%eqconstraint%xpts (xpts) (7.9.8.1.536)
position (4639)	equilibrium%eqconstraint%xpts%position (rz1D) (7.9.8.1.387)
r (4490)	equilibrium%eqconstraint%xpts%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	equilibrium%eqconstraint%xpts%position%z (vecflt_type) (7.9.8.1.18)
source (4639)	equilibrium%eqconstraint%xpts%source (string) (7.9.8.1.4)
weight (4639)	equilibrium%eqconstraint%xpts%weight (vecflt_type) (7.9.8.1.18)
sigma (4639)	equilibrium%eqconstraint%xpts%sigma (vecflt_type) (7.9.8.1.18)
calculated (4639)	equilibrium%eqconstraint%xpts%calculated (vecflt_type) (7.9.8.1.18)
chi2 (4639)	equilibrium%eqconstraint%xpts%chi2 (vecflt_type) (7.9.8.1.18)
eqgeometry (4146)	equilibrium%eqgeometry (eqgeometry) (7.9.8.1.218)
source (4321)	equilibrium%eqgeometry%source (string) (7.9.8.1.4)
boundarytype (4321)	equilibrium%eqgeometry%boundarytype (integer) (7.9.8.1.3)
boundary (4321)	equilibrium%eqgeometry%boundary(:) (rz1Dexp) (7.9.8.1.389)
r (4492)	equilibrium%eqgeometry%boundary(:)%r (vecflt_type) (7.9.8.1.18)
z (4492)	equilibrium%eqgeometry%boundary(:)%z (vecflt_type) (7.9.8.1.18)
geom_axis (4321)	equilibrium%eqgeometry%geom_axis (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%geom_axis%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%geom_axis%z (float) (7.9.8.1.2)
a_minor (4321)	equilibrium%eqgeometry%a_minor (float) (7.9.8.1.2)
elongation (4321)	equilibrium%eqgeometry%elongation (float) (7.9.8.1.2)
elong_upper (4321)	equilibrium%eqgeometry%elong_upper (float) (7.9.8.1.2)
elong_lower (4321)	equilibrium%eqgeometry%elong_lower (float) (7.9.8.1.2)
tria_upper (4321)	equilibrium%eqgeometry%tria_upper (float) (7.9.8.1.2)
tria_lower (4321)	equilibrium%eqgeometry%tria_lower (float) (7.9.8.1.2)
xpts (4321)	equilibrium%eqgeometry%xpts(:) (rz1Dexp) (7.9.8.1.389)
r (4492)	equilibrium%eqgeometry%xpts(:)%r (vecflt_type) (7.9.8.1.18)
z (4492)	equilibrium%eqgeometry%xpts(:)%z (vecflt_type) (7.9.8.1.18)
left_low_st (4321)	equilibrium%eqgeometry%left_low_st (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%left_low_st%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%left_low_st%z (float) (7.9.8.1.2)
right_low_st (4321)	equilibrium%eqgeometry%right_low_st (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%right_low_st%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%right_low_st%z (float) (7.9.8.1.2)
left_up_st (4321)	equilibrium%eqgeometry%left_up_st (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%left_up_st%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%left_up_st%z (float) (7.9.8.1.2)
right_up_st (4321)	equilibrium%eqgeometry%right_up_st (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%right_up_st%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%right_up_st%z (float) (7.9.8.1.2)
active_limit (4321)	equilibrium%eqgeometry%active_limit (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%eqgeometry%active_limit%r (float) (7.9.8.1.2)
z (4489)	equilibrium%eqgeometry%active_limit%z (float) (7.9.8.1.2)
ang_lcms_upo (4321)	equilibrium%eqgeometry%ang_lcms_upo (float) (7.9.8.1.2)
ang_lcms_upi (4321)	equilibrium%eqgeometry%ang_lcms_upi (float) (7.9.8.1.2)
ang_lcms_lwo (4321)	equilibrium%eqgeometry%ang_lcms_lwo (float) (7.9.8.1.2)
ang_lcms_lwi (4321)	equilibrium%eqgeometry%ang_lcms_lwi (float) (7.9.8.1.2)
flush (4146)	equilibrium%flush (flush) (7.9.8.1.231)
datainfo (4334)	equilibrium%flush%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	equilibrium%flush%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	equilibrium%flush%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	equilibrium%flush%datainfo%source (string) (7.9.8.1.4)
comment (4265)	equilibrium%flush%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	equilibrium%flush%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	equilibrium%flush%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	equilibrium%flush%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	equilibrium%flush%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	equilibrium%flush%datainfo%whatref%user (string) (7.9.8.1.4)

machine (4637)	equilibrium%flush%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	equilibrium%flush%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	equilibrium%flush%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	equilibrium%flush%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	equilibrium%flush%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	equilibrium%flush%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	equilibrium%flush%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	equilibrium%flush%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	equilibrium%flush%datainfo%putinfo%rights (string) (7.9.8.1.4)
position (4334)	equilibrium%flush%position (rz1D) (7.9.8.1.387)
r (4490)	equilibrium%flush%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	equilibrium%flush%position%z (vecflt_type) (7.9.8.1.18)
coef (4334)	equilibrium%flush%coef (matflt_type) (7.9.8.1.15)
codeparam (4334)	equilibrium%flush%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	equilibrium%flush%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	equilibrium%flush%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	equilibrium%flush%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	equilibrium%flush%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	equilibrium%flush%codeparam%output_flag (integer) (7.9.8.1.3)
global_param (4146)	equilibrium%global_param (global_param) (7.9.8.1.256)
beta_pol (4359)	equilibrium%global_param%beta_pol (float) (7.9.8.1.2)
beta_tor (4359)	equilibrium%global_param%beta_tor (float) (7.9.8.1.2)
beta_normal (4359)	equilibrium%global_param%beta_normal (float) (7.9.8.1.2)
i_plasma (4359)	equilibrium%global_param%i_plasma (float) (7.9.8.1.2)
li (4359)	equilibrium%global_param%li (float) (7.9.8.1.2)
volume (4359)	equilibrium%global_param%volume (float) (7.9.8.1.2)
area (4359)	equilibrium%global_param%area (float) (7.9.8.1.2)
psi_ax (4359)	equilibrium%global_param%psi_ax (float) (7.9.8.1.2)
psi_bound (4359)	equilibrium%global_param%psi_bound (float) (7.9.8.1.2)
mag_axis (4359)	equilibrium%global_param%mag_axis (mag_axis) (7.9.8.1.286)
position (4389)	equilibrium%global_param%mag_axis%position (rz0D) (7.9.8.1.386)
r (4489)	equilibrium%global_param%mag_axis%position%r (float) (7.9.8.1.2)
z (4489)	equilibrium%global_param%mag_axis%position%z (float) (7.9.8.1.2)
bphi (4389)	equilibrium%global_param%mag_axis%bphi (float) (7.9.8.1.2)
q (4389)	equilibrium%global_param%mag_axis%q (float) (7.9.8.1.2)
q_95 (4359)	equilibrium%global_param%q_95 (float) (7.9.8.1.2)
q_min (4359)	equilibrium%global_param%q_min (float) (7.9.8.1.2)
toroid_field (4359)	equilibrium%global_param%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	equilibrium%global_param%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	equilibrium%global_param%toroid_field%b0 (float) (7.9.8.1.2)
w_mhd (4359)	equilibrium%global_param%w_mhd (float) (7.9.8.1.2)
gamma (4359)	equilibrium%global_param%gamma (float) (7.9.8.1.2)
profiles_1d (4146)	equilibrium%profiles_1d (profiles_1d) (7.9.8.1.368)
psi (4471)	equilibrium%profiles_1d%psi (vecflt_type) (7.9.8.1.18)
phi (4471)	equilibrium%profiles_1d%phi (vecflt_type) (7.9.8.1.18)
pressure (4471)	equilibrium%profiles_1d%pressure (vecflt_type) (7.9.8.1.18)
F_dia (4471)	equilibrium%profiles_1d%F_dia (vecflt_type) (7.9.8.1.18)
pprime (4471)	equilibrium%profiles_1d%pprime (vecflt_type) (7.9.8.1.18)
ffprime (4471)	equilibrium%profiles_1d%ffprime (vecflt_type) (7.9.8.1.18)
jphi (4471)	equilibrium%profiles_1d%jphi (vecflt_type) (7.9.8.1.18)
jparallel (4471)	equilibrium%profiles_1d%jparallel (vecflt_type) (7.9.8.1.18)
q (4471)	equilibrium%profiles_1d%q (vecflt_type) (7.9.8.1.18)
shear (4471)	equilibrium%profiles_1d%shear (vecflt_type) (7.9.8.1.18)
r_inboard (4471)	equilibrium%profiles_1d%r_inboard (vecflt_type) (7.9.8.1.18)
r_outboard (4471)	equilibrium%profiles_1d%r_outboard (vecflt_type) (7.9.8.1.18)
rho_tor (4471)	equilibrium%profiles_1d%rho_tor (vecflt_type) (7.9.8.1.18)
dpsidrho_tor (4471)	equilibrium%profiles_1d%dpsidrho_tor (vecflt_type) (7.9.8.1.18)
rho_vol (4471)	equilibrium%profiles_1d%rho_vol (vecflt_type) (7.9.8.1.18)
beta_pol (4471)	equilibrium%profiles_1d%beta_pol (vecflt_type) (7.9.8.1.18)
li (4471)	equilibrium%profiles_1d%li (vecflt_type) (7.9.8.1.18)
elongation (4471)	equilibrium%profiles_1d%elongation (vecflt_type) (7.9.8.1.18)

tria_upper (4471)	equilibrium%profiles_1d%tria_upper (vecflt_type) (7.9.8.1.18)
tria_lower (4471)	equilibrium%profiles_1d%tria_lower (vecflt_type) (7.9.8.1.18)
volume (4471)	equilibrium%profiles_1d%volume (vecflt_type) (7.9.8.1.18)
vprime (4471)	equilibrium%profiles_1d%vprime (vecflt_type) (7.9.8.1.18)
dvdrho (4471)	equilibrium%profiles_1d%dvdrho (vecflt_type) (7.9.8.1.18)
area (4471)	equilibrium%profiles_1d%area (vecflt_type) (7.9.8.1.18)
aprime (4471)	equilibrium%profiles_1d%aprime (vecflt_type) (7.9.8.1.18)
surface (4471)	equilibrium%profiles_1d%surface (vecflt_type) (7.9.8.1.18)
ftrap (4471)	equilibrium%profiles_1d%ftrap (vecflt_type) (7.9.8.1.18)
gm1 (4471)	equilibrium%profiles_1d%gm1 (vecflt_type) (7.9.8.1.18)
gm2 (4471)	equilibrium%profiles_1d%gm2 (vecflt_type) (7.9.8.1.18)
gm3 (4471)	equilibrium%profiles_1d%gm3 (vecflt_type) (7.9.8.1.18)
gm4 (4471)	equilibrium%profiles_1d%gm4 (vecflt_type) (7.9.8.1.18)
gm5 (4471)	equilibrium%profiles_1d%gm5 (vecflt_type) (7.9.8.1.18)
gm6 (4471)	equilibrium%profiles_1d%gm6 (vecflt_type) (7.9.8.1.18)
gm7 (4471)	equilibrium%profiles_1d%gm7 (vecflt_type) (7.9.8.1.18)
gm8 (4471)	equilibrium%profiles_1d%gm8 (vecflt_type) (7.9.8.1.18)
gm9 (4471)	equilibrium%profiles_1d%gm9 (vecflt_type) (7.9.8.1.18)
b_av (4471)	equilibrium%profiles_1d%b_av (vecflt_type) (7.9.8.1.18)
b_min (4471)	equilibrium%profiles_1d%b_min (vecflt_type) (7.9.8.1.18)
b_max (4471)	equilibrium%profiles_1d%b_max (vecflt_type) (7.9.8.1.18)
omega (4471)	equilibrium%profiles_1d%omega (vecflt_type) (7.9.8.1.18)
omegaprime (4471)	equilibrium%profiles_1d%omegaprime (vecflt_type) (7.9.8.1.18)
mach_a (4471)	equilibrium%profiles_1d%mach_a (vecflt_type) (7.9.8.1.18)
phi_flow (4471)	equilibrium%profiles_1d%phi_flow (vecflt_type) (7.9.8.1.18)
s_flow (4471)	equilibrium%profiles_1d%s_flow (vecflt_type) (7.9.8.1.18)
h_flow (4471)	equilibrium%profiles_1d%h_flow (vecflt_type) (7.9.8.1.18)
rho_mass (4471)	equilibrium%profiles_1d%rho_mass (vecflt_type) (7.9.8.1.18)
profiles_2d (4146)	equilibrium%profiles_2d(:) (equilibrium_profiles_2d) (7.9.8.1.223)
grid_type (4326)	equilibrium%profiles_2d(:)%grid_type (vecstring_type) (7.9.8.1.20)
grid (4326)	equilibrium%profiles_2d(:)%grid (equilibrium_profiles2d_grid) (7.9.8.1.222)
dim1 (4325)	equilibrium%profiles_2d(:)%grid%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4325)	equilibrium%profiles_2d(:)%grid%dim2 (vecflt_type) (7.9.8.1.18)
connect (4325)	equilibrium%profiles_2d(:)%grid%connect (matint_type) (7.9.8.1.16)
r (4326)	equilibrium%profiles_2d(:)%r (matflt_type) (7.9.8.1.15)
z (4326)	equilibrium%profiles_2d(:)%z (matflt_type) (7.9.8.1.15)
psi (4326)	equilibrium%profiles_2d(:)%psi (matflt_type) (7.9.8.1.15)
theta (4326)	equilibrium%profiles_2d(:)%theta (matflt_type) (7.9.8.1.15)
phi (4326)	equilibrium%profiles_2d(:)%phi (matflt_type) (7.9.8.1.15)
jphi (4326)	equilibrium%profiles_2d(:)%jphi (matflt_type) (7.9.8.1.15)
jpar (4326)	equilibrium%profiles_2d(:)%jpar (matflt_type) (7.9.8.1.15)
br (4326)	equilibrium%profiles_2d(:)%br (matflt_type) (7.9.8.1.15)
bz (4326)	equilibrium%profiles_2d(:)%bz (matflt_type) (7.9.8.1.15)
bphi (4326)	equilibrium%profiles_2d(:)%bphi (matflt_type) (7.9.8.1.15)
vphi (4326)	equilibrium%profiles_2d(:)%vphi (matflt_type) (7.9.8.1.15)
vtheta (4326)	equilibrium%profiles_2d(:)%vtheta (matflt_type) (7.9.8.1.15)
rho_mass (4326)	equilibrium%profiles_2d(:)%rho_mass (matflt_type) (7.9.8.1.15)
pressure (4326)	equilibrium%profiles_2d(:)%pressure (matflt_type) (7.9.8.1.15)
temperature (4326)	equilibrium%profiles_2d(:)%temperature (matflt_type) (7.9.8.1.15)
coord_sys (4146)	equilibrium%coord_sys (coord_sys) (7.9.8.1.129)
grid_type (4232)	equilibrium%coord_sys%grid_type (string) (7.9.8.1.4)
grid (4232)	equilibrium%coord_sys%grid (reggrid) (7.9.8.1.382)
dim1 (4485)	equilibrium%coord_sys%grid%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4485)	equilibrium%coord_sys%grid%dim2 (vecflt_type) (7.9.8.1.18)
jacobian (4232)	equilibrium%coord_sys%jacobian (matflt_type) (7.9.8.1.15)
g_11 (4232)	equilibrium%coord_sys%g_11 (matflt_type) (7.9.8.1.15)
g_12 (4232)	equilibrium%coord_sys%g_12 (matflt_type) (7.9.8.1.15)
g_13 (4232)	equilibrium%coord_sys%g_13 (matflt_type) (7.9.8.1.15)
g_22 (4232)	equilibrium%coord_sys%g_22 (matflt_type) (7.9.8.1.15)
g_23 (4232)	equilibrium%coord_sys%g_23 (matflt_type) (7.9.8.1.15)
g_33 (4232)	equilibrium%coord_sys%g_33 (matflt_type) (7.9.8.1.15)

position (4232)	equilibrium%coord_sys%position (rz2D) (7.9.8.1.390)
r (4493)	equilibrium%coord_sys%position%r (matflt_type) (7.9.8.1.15)
z (4493)	equilibrium%coord_sys%position%z (matflt_type) (7.9.8.1.15)
time (4146)	equilibrium%time (float) (7.9.8.1.2)
codeparam (4146)	equilibrium%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	equilibrium%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	equilibrium%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	equilibrium%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	equilibrium%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	equilibrium%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.22 fusiondiag

datainfo (4147)	fusiondiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	fusiondiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	fusiondiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	fusiondiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	fusiondiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	fusiondiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	fusiondiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	fusiondiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	fusiondiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	fusiondiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	fusiondiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	fusiondiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	fusiondiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	fusiondiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	fusiondiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	fusiondiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	fusiondiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	fusiondiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	fusiondiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
fus_product (4147)	fusiondiag%fus_product(:) (fusiondiag_fus_product) (7.9.8.1.250)
product (4353)	fusiondiag%fus_product(:)%product (string) (7.9.8.1.4)
reaction (4353)	fusiondiag%fus_product(:)%reaction (string) (7.9.8.1.4)
collimator (4353)	fusiondiag%fus_product(:)%collimator (fusiondiag_collimator) (7.9.8.1.241)
colli_circ (4344)	fusiondiag%fus_product(:)%collimator%colli_circ(:) (fusiondiag_colli_circ) (7.9.8.1.239)
name (4342)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%name (string) (7.9.8.1.4)
setup_line (4342)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line (setup_line) (7.9.8.1.424)
pivot_point (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%width (vecflt_type) (7.9.8.1.18)
second_point (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%verchordang2 (vecflt_type) (7.9.8.1.18)

third_point (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4527)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%setup_line%nchordpoints (integer) (7.9.8.1.3)
colliunit (4342)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:) (fusiondiag_colliunit_circ) (7.9.8.1.242)
radius (4345)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%radius (vecflt_type) (7.9.8.1.18)
centre (4345)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_circ(:)%colliunit(:)%centre%phi (vecflt_type) (7.9.8.1.18)
colli_poly (4344)	fusiondiag%fus_product(:)%collimator%colli_poly(:) (fusiondiag_colli_poly) (7.9.8.1.240)
name (4343)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%name (string) (7.9.8.1.4)
setup_line (4343)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line (setup_line) (7.9.8.1.424)
pivot_point (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%width (vecflt_type) (7.9.8.1.18)
second_point (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point (rzphi1D) (7.9.8.1.393)
r (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4527)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%setup_line%nchordpoints (integer) (7.9.8.1.3)
colliunit (4343)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:) (fusiondiag_colliunit_poly) (7.9.8.1.243)
dimension (4346)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%dimension (float) (7.9.8.1.2)
nodes (4346)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes (rzphi2D) (7.9.8.1.396)
r (4499)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%r (matflt_type) (7.9.8.1.15)
z (4499)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%z (matflt_type) (7.9.8.1.15)
phi (4499)	fusiondiag%fus_product(:)%collimator%colli_poly(:)%colliunit(:)%nodes%phi (matflt_type) (7.9.8.1.15)

colli_3d (4344)	fusiondiag%fus_product(:)%collimator%colli_3d(:) (fusiondiag_colli_3d) (7.9.8.1.238)
name (4341)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%name (string) (7.9.8.1.4)
voxels (4341)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:) (fusiondiag_voxels) (7.9.8.1.253)
centre (4356)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre (rzphi0D) (7.9.8.1.392)
r (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%r (float) (7.9.8.1.2)
z (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%z (float) (7.9.8.1.2)
phi (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%centre%phi (float) (7.9.8.1.2)
direction (4356)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction (rzphi0D) (7.9.8.1.392)
r (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%r (float) (7.9.8.1.2)
z (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%z (float) (7.9.8.1.2)
phi (4495)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%direction%phi (float) (7.9.8.1.2)
volume (4356)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%volume (float) (7.9.8.1.2)
solid_angle (4356)	fusiondiag%fus_product(:)%collimator%colli_3d(:)%voxels(:)%solid_angle (float) (7.9.8.1.2)
counts (4353)	fusiondiag%fus_product(:)%counts (fusiondiag_counts) (7.9.8.1.244)
units (4347)	fusiondiag%fus_product(:)%counts%units (string) (7.9.8.1.4)
ct_chords (4347)	fusiondiag%fus_product(:)%counts%ct_chords(:) (fusiondiag_ct_chords) (7.9.8.1.245)
name (4348)	fusiondiag%fus_product(:)%counts%ct_chords(:)%name (vecstring_type) (7.9.8.1.20)
energy (4348)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy (exp0D) (7.9.8.1.224)
value (4327)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%value (float) (7.9.8.1.2)
abserror (4327)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%abserror (float) (7.9.8.1.2)
relerror (4327)	fusiondiag%fus_product(:)%counts%ct_chords(:)%energy%relerror (float) (7.9.8.1.2)
measure (4348)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%counts%ct_chords(:)%measure%relerror (vecflt_type) (7.9.8.1.18)
ct_energy (4347)	fusiondiag%fus_product(:)%counts%ct_energy(:) (fusiondiag_ct_energy) (7.9.8.1.246)
energy (4349)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%energy%relerror (vecflt_type) (7.9.8.1.18)
measure (4349)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%counts%ct_energy(:)%measure%relerror (vecflt_type) (7.9.8.1.18)
detect_ct (4347)	fusiondiag%fus_product(:)%counts%detect_ct(:) (fusiondiag_detect_ct_energy) (7.9.8.1.247)
energy (4350)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%energy%relerror (vecflt_type) (7.9.8.1.18)
measure (4350)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%counts%detect_ct(:)%measure%relerror (vecflt_type) (7.9.8.1.18)
diag_func (4350)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func (diag_func) (7.9.8.1.168)
description (4271)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%description (string) (7.9.8.1.4)
transf_mat (4271)	fusiondiag%fus_product(:)%counts%detect_ct(:)%diag_func%transf_mat (matflt_type) (7.9.8.1.15)
emissivity1d (4353)	fusiondiag%fus_product(:)%emissivity1d (fusiondiag_emissivity1d) (7.9.8.1.248)
units (4351)	fusiondiag%fus_product(:)%emissivity1d%units (string) (7.9.8.1.4)
r (4351)	fusiondiag%fus_product(:)%emissivity1d%r (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%emissivity1d%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%emissivity1d%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%emissivity1d%r%relerror (vecflt_type) (7.9.8.1.18)
z (4351)	fusiondiag%fus_product(:)%emissivity1d%z (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%emissivity1d%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%emissivity1d%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%emissivity1d%z%relerror (vecflt_type) (7.9.8.1.18)
spec1d (4351)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:) (fusiondiag_spec1d) (7.9.8.1.251)
energy (4354)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy (exp0D) (7.9.8.1.224)
value (4327)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%value (float) (7.9.8.1.2)
abserror (4327)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%abserror (float) (7.9.8.1.2)

relerror (4327)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%energy%relerror (float) (7.9.8.1.2)
measure (4354)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure (exp1D) (7.9.8.1.225)
value (4328)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	fusiondiag%fus_product(:)%emissivity1d%spec1d(:)%measure%relerror (vecflt_type) (7.9.8.1.18)
emissivity2d (4353)	fusiondiag%fus_product(:)%emissivity2d (fusiondiag_emissivity2d) (7.9.8.1.249)
units (4352)	fusiondiag%fus_product(:)%emissivity2d%units (string) (7.9.8.1.4)
r (4352)	fusiondiag%fus_product(:)%emissivity2d%r (exp2D) (7.9.8.1.226)
value (4329)	fusiondiag%fus_product(:)%emissivity2d%r%value (matflt_type) (7.9.8.1.15)
abserror (4329)	fusiondiag%fus_product(:)%emissivity2d%r%abserror (matflt_type) (7.9.8.1.15)
relerror (4329)	fusiondiag%fus_product(:)%emissivity2d%r%relerror (matflt_type) (7.9.8.1.15)
z (4352)	fusiondiag%fus_product(:)%emissivity2d%z (exp2D) (7.9.8.1.226)
value (4329)	fusiondiag%fus_product(:)%emissivity2d%z%value (matflt_type) (7.9.8.1.15)
abserror (4329)	fusiondiag%fus_product(:)%emissivity2d%z%abserror (matflt_type) (7.9.8.1.15)
relerror (4329)	fusiondiag%fus_product(:)%emissivity2d%z%relerror (matflt_type) (7.9.8.1.15)
spec2d (4352)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:) (fusiondiag_spec2d) (7.9.8.1.252)
energy (4355)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy (exp0D) (7.9.8.1.224)
value (4327)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%value (float) (7.9.8.1.2)
abserror (4327)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%abserror (float) (7.9.8.1.2)
relerror (4327)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%energy%relerror (float) (7.9.8.1.2)
measure (4355)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure (exp2D) (7.9.8.1.226)
value (4329)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%value (matflt_type) (7.9.8.1.15)
abserror (4329)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%abserror (matflt_type) (7.9.8.1.15)
relerror (4329)	fusiondiag%fus_product(:)%emissivity2d%spec2d(:)%measure%relerror (matflt_type) (7.9.8.1.15)
codeparam (4353)	fusiondiag%fus_product(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	fusiondiag%fus_product(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	fusiondiag%fus_product(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	fusiondiag%fus_product(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	fusiondiag%fus_product(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	fusiondiag%fus_product(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4147)	fusiondiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	fusiondiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	fusiondiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	fusiondiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	fusiondiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	fusiondiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4147)	fusiondiag%time (float) (7.9.8.1.2)

7.9.8.2.23 halphadiag

datainfo (4148)	halphadiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	halphadiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	halphadiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	halphadiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	halphadiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	halphadiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	halphadiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	halphadiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	halphadiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	halphadiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	halphadiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	halphadiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	halphadiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	halphadiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	halphadiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	halphadiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	halphadiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)

putlocation (4473)	halphadiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	halphadiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4148)	halphadiag%setup (halpha_setup) (7.9.8.1.258)
name (4361)	halphadiag%setup%name (vecstring_type) (7.9.8.1.20)
pivot_point (4361)	halphadiag%setup%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	halphadiag%setup%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	halphadiag%setup%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	halphadiag%setup%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang (4361)	halphadiag%setup%horchordang (vecflt_type) (7.9.8.1.18)
verchordang (4361)	halphadiag%setup%verchordang (vecflt_type) (7.9.8.1.18)
second_point (4361)	halphadiag%setup%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	halphadiag%setup%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	halphadiag%setup%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	halphadiag%setup%second_point%phi (vecflt_type) (7.9.8.1.18)
solidangle (4361)	halphadiag%setup%solidangle (exp1D) (7.9.8.1.225)
value (4328)	halphadiag%setup%solidangle%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	halphadiag%setup%solidangle%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	halphadiag%setup%solidangle%relerror (vecflt_type) (7.9.8.1.18)
intensity (4148)	halphadiag%intensity (exp1D) (7.9.8.1.225)
value (4328)	halphadiag%intensity%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	halphadiag%intensity%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	halphadiag%intensity%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4148)	halphadiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	halphadiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	halphadiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	halphadiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	halphadiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	halphadiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4148)	halphadiag%time (float) (7.9.8.1.2)

7.9.8.2.24 heat_sources

datainfo (4149)	heat_sources%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	heat_sources%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	heat_sources%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	heat_sources%datainfo%source (string) (7.9.8.1.4)
comment (4265)	heat_sources%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	heat_sources%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	heat_sources%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	heat_sources%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	heat_sources%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	heat_sources%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	heat_sources%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	heat_sources%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	heat_sources%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	heat_sources%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	heat_sources%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	heat_sources%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	heat_sources%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	heat_sources%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	heat_sources%datainfo%putinfo%rights (string) (7.9.8.1.4)
sources (4149)	heat_sources%sources(:) (calorimetry_heat_source) (7.9.8.1.101)
name (4204)	heat_sources%sources(:)%name (string) (7.9.8.1.4)
temp_in (4204)	heat_sources%sources(:)%temp_in (float) (7.9.8.1.2)
temp_out (4204)	heat_sources%sources(:)%temp_out (float) (7.9.8.1.2)
press_in (4204)	heat_sources%sources(:)%press_in (float) (7.9.8.1.2)
press_out (4204)	heat_sources%sources(:)%press_out (float) (7.9.8.1.2)
flow (4204)	heat_sources%sources(:)%flow (float) (7.9.8.1.2)
power (4204)	heat_sources%sources(:)%power (float) (7.9.8.1.2)
sinks (4149)	heat_sources%sinks(:) (calorimetry_heat_source) (7.9.8.1.101)
name (4204)	heat_sources%sinks(:)%name (string) (7.9.8.1.4)

temp_in (4204)	heat_sources%sinks(:)%temp_in (float) (7.9.8.1.2)
temp_out (4204)	heat_sources%sinks(:)%temp_out (float) (7.9.8.1.2)
press_in (4204)	heat_sources%sinks(:)%press_in (float) (7.9.8.1.2)
press_out (4204)	heat_sources%sinks(:)%press_out (float) (7.9.8.1.2)
flow (4204)	heat_sources%sinks(:)%flow (float) (7.9.8.1.2)
power (4204)	heat_sources%sinks(:)%power (float) (7.9.8.1.2)
codeparam (4149)	heat_sources%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	heat_sources%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	heat_sources%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	heat_sources%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	heat_sources%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	heat_sources%codeparam%output_flag (integer) (7.9.8.1.3)
time (4149)	heat_sources%time (float) (7.9.8.1.2)

7.9.8.2.25 interfdiag

datainfo (4385)	lineintegraldiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	lineintegraldiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	lineintegraldiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	lineintegraldiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	lineintegraldiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	lineintegraldiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	lineintegraldiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	lineintegraldiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	lineintegraldiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	lineintegraldiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
expression (4385)	lineintegraldiag%expression (string) (7.9.8.1.4)
setup_line (4385)	lineintegraldiag%setup_line (setup_line) (7.9.8.1.424)
pivot_point (4527)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4527)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4527)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.8.1.18)
width (4527)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.8.1.18)
second_point (4527)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4527)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4527)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4527)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4527)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.8.1.3)
measure (4385)	lineintegraldiag%measure (exp1D) (7.9.8.1.225)
value (4328)	lineintegraldiag%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4385)	lineintegraldiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	lineintegraldiag%codeparam%codename (string) (7.9.8.1.4)

codeversion (4208)	lineintegraldiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	lineintegraldiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	lineintegraldiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	lineintegraldiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4385)	lineintegraldiag%time (float) (7.9.8.1.2)

7.9.8.2.26 ironmodel

datainfo (4151)	ironmodel%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	ironmodel%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	ironmodel%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	ironmodel%datainfo%source (string) (7.9.8.1.4)
comment (4265)	ironmodel%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	ironmodel%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	ironmodel%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	ironmodel%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	ironmodel%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	ironmodel%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	ironmodel%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	ironmodel%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	ironmodel%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	ironmodel%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	ironmodel%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	ironmodel%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	ironmodel%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	ironmodel%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	ironmodel%datainfo%putinfo%rights (string) (7.9.8.1.4)
desc_iron (4151)	ironmodel%desc_iron (desc_iron) (7.9.8.1.165)
name (4268)	ironmodel%desc_iron%name (vecstring_type) (7.9.8.1.20)
id (4268)	ironmodel%desc_iron%id (vecstring_type) (7.9.8.1.20)
permeability (4268)	ironmodel%desc_iron%permeability (permeability) (7.9.8.1.348)
b (4451)	ironmodel%desc_iron%permeability%b (matflt_type) (7.9.8.1.15)
mur (4451)	ironmodel%desc_iron%permeability%mur (matflt_type) (7.9.8.1.15)
geom_iron (4268)	ironmodel%desc_iron%geom_iron (geom_iron) (7.9.8.1.255)
npoints (4358)	ironmodel%desc_iron%geom_iron%npoints (vecint_type) (7.9.8.1.19)
rzcoordinate (4358)	ironmodel%desc_iron%geom_iron%rzcoordinate (rz2D) (7.9.8.1.390)
r (4493)	ironmodel%desc_iron%geom_iron%rzcoordinate%r (matflt_type) (7.9.8.1.15)
z (4493)	ironmodel%desc_iron%geom_iron%rzcoordinate%z (matflt_type) (7.9.8.1.15)
magnetise (4151)	ironmodel%magnetise (magnetise) (7.9.8.1.288)
mr (4391)	ironmodel%magnetise%mr (exp1D) (7.9.8.1.225)
value (4328)	ironmodel%magnetise%mr%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ironmodel%magnetise%mr%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ironmodel%magnetise%mr%relerror (vecflt_type) (7.9.8.1.18)
mz (4391)	ironmodel%magnetise%mz (exp1D) (7.9.8.1.225)
value (4328)	ironmodel%magnetise%mz%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	ironmodel%magnetise%mz%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	ironmodel%magnetise%mz%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4151)	ironmodel%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	ironmodel%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	ironmodel%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	ironmodel%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	ironmodel%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	ironmodel%codeparam%output_flag (integer) (7.9.8.1.3)
time (4151)	ironmodel%time (float) (7.9.8.1.2)

7.9.8.2.27 langmuirdiag

datainfo (4152)	langmuirdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	langmuirdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	langmuirdiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	langmuirdiag%datainfo%source (string) (7.9.8.1.4)

comment (4265)	langmuirdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	langmuirdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	langmuirdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	langmuirdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	langmuirdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	langmuirdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	langmuirdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	langmuirdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	langmuirdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	langmuirdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	langmuirdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	langmuirdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	langmuirdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	langmuirdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	langmuirdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
potential (4152)	langmuirdiag%potential (lang_measure) (7.9.8.1.272)
name (4375)	langmuirdiag%potential%name (vecstring_type) (7.9.8.1.20)
direction (4375)	langmuirdiag%potential%direction (vecstring_type) (7.9.8.1.20)
area (4375)	langmuirdiag%potential%area (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%potential%area%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%potential%area%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%potential%area%relerror (vecflt_type) (7.9.8.1.18)
position (4375)	langmuirdiag%potential%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%potential%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%potential%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%potential%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%potential%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%potential%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%potential%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%potential%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%potential%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%potential%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%potential%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%potential%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%potential%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4375)	langmuirdiag%potential%measure (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%potential%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%potential%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%potential%measure%relerror (vecflt_type) (7.9.8.1.18)
bias (4152)	langmuirdiag%bias (lang_measure) (7.9.8.1.272)
name (4375)	langmuirdiag%bias%name (vecstring_type) (7.9.8.1.20)
direction (4375)	langmuirdiag%bias%direction (vecstring_type) (7.9.8.1.20)
area (4375)	langmuirdiag%bias%area (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%bias%area%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%bias%area%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%bias%area%relerror (vecflt_type) (7.9.8.1.18)
position (4375)	langmuirdiag%bias%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%bias%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%bias%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%bias%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%bias%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%bias%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%bias%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%bias%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%bias%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%bias%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%bias%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%bias%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%bias%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4375)	langmuirdiag%bias%measure (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%bias%measure%value (vecflt_type) (7.9.8.1.18)

abserror (4328)	langmuirdiag%bias%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%bias%measure%relerror (vecflt_type) (7.9.8.1.18)
jsat (4152)	langmuirdiag%jsat (lang_measure) (7.9.8.1.272)
name (4375)	langmuirdiag%jsat%name (vecstring_type) (7.9.8.1.20)
direction (4375)	langmuirdiag%jsat%direction (vecstring_type) (7.9.8.1.20)
area (4375)	langmuirdiag%jsat%area (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%jsat%area%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%jsat%area%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%jsat%area%relerror (vecflt_type) (7.9.8.1.18)
position (4375)	langmuirdiag%jsat%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%jsat%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%jsat%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%jsat%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%jsat%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%jsat%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%jsat%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%jsat%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%jsat%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%jsat%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%jsat%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%jsat%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%jsat%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4375)	langmuirdiag%jsat%measure (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%jsat%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%jsat%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%jsat%measure%relerror (vecflt_type) (7.9.8.1.18)
ne (4152)	langmuirdiag%ne (lang_derived) (7.9.8.1.271)
source (4374)	langmuirdiag%ne%source (vecstring_type) (7.9.8.1.20)
position (4374)	langmuirdiag%ne%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%ne%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%ne%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%ne%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%ne%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%ne%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%ne%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%ne%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%ne%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%ne%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%ne%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%ne%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%ne%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4374)	langmuirdiag%ne%measure (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%ne%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%ne%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%ne%measure%relerror (vecflt_type) (7.9.8.1.18)
te (4152)	langmuirdiag%te (lang_derived) (7.9.8.1.271)
source (4374)	langmuirdiag%te%source (vecstring_type) (7.9.8.1.20)
position (4374)	langmuirdiag%te%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%te%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%te%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%te%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%te%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%te%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%te%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%te%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%te%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%te%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%te%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%te%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%te%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4374)	langmuirdiag%te%measure (exp1D) (7.9.8.1.225)

value (4328)	langmuirdiag%te%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%te%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%te%measure%relerror (vecflt_type) (7.9.8.1.18)
machpar (4152)	langmuirdiag%machpar (lang_derived) (7.9.8.1.271)
source (4374)	langmuirdiag%machpar%source (vecstring_type) (7.9.8.1.20)
position (4374)	langmuirdiag%machpar%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	langmuirdiag%machpar%position%r (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%machpar%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%machpar%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%machpar%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	langmuirdiag%machpar%position%z (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%machpar%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%machpar%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%machpar%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	langmuirdiag%machpar%position%phi (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%machpar%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%machpar%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%machpar%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4374)	langmuirdiag%machpar%measure (exp1D) (7.9.8.1.225)
value (4328)	langmuirdiag%machpar%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	langmuirdiag%machpar%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	langmuirdiag%machpar%measure%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4152)	langmuirdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	langmuirdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	langmuirdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	langmuirdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	langmuirdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	langmuirdiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4152)	langmuirdiag%time (float) (7.9.8.1.2)

7.9.8.2.28 launchs

datainfo (4153)	launchs%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	launchs%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	launchs%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	launchs%datainfo%source (string) (7.9.8.1.4)
comment (4265)	launchs%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	launchs%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	launchs%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	launchs%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	launchs%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	launchs%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	launchs%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	launchs%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	launchs%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	launchs%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	launchs%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	launchs%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	launchs%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	launchs%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	launchs%datainfo%putinfo%rights (string) (7.9.8.1.4)
name (4153)	launchs%name (vecstring_type) (7.9.8.1.20)
type (4153)	launchs%type (vecstring_type) (7.9.8.1.20)
frequency (4153)	launchs%frequency (vecflt_type) (7.9.8.1.18)
mode (4153)	launchs%mode (vecint_type) (7.9.8.1.19)
position (4153)	launchs%position (rzphi1D) (7.9.8.1.393)
r (4496)	launchs%position%r (vecflt_type) (7.9.8.1.18)
z (4496)	launchs%position%z (vecflt_type) (7.9.8.1.18)
phi (4496)	launchs%position%phi (vecflt_type) (7.9.8.1.18)
spectrum (4153)	launchs%spectrum (spectrum) (7.9.8.1.441)
phi_theta (4544)	launchs%spectrum%phi_theta (launchs_phi_theta) (7.9.8.1.275)

nn_phi (4378)	launchs%spectrum%phi_theta%nn_phi (vecint_type) (7.9.8.1.19)
nn_theta (4378)	launchs%spectrum%phi_theta%nn_theta (vecint_type) (7.9.8.1.19)
n_phi (4378)	launchs%spectrum%phi_theta%n_phi (matflt_type) (7.9.8.1.15)
n_theta (4378)	launchs%spectrum%phi_theta%n_theta (matflt_type) (7.9.8.1.15)
power (4378)	launchs%spectrum%phi_theta%power (array3dflt_type) (7.9.8.1.7)
parallel (4544)	launchs%spectrum%parallel (launchs_parallel) (7.9.8.1.274)
nn_par (4377)	launchs%spectrum%parallel%nn_par (vecint_type) (7.9.8.1.19)
n_par (4377)	launchs%spectrum%parallel%n_par (matflt_type) (7.9.8.1.15)
power (4377)	launchs%spectrum%parallel%power (vecflt_type) (7.9.8.1.18)
beam (4153)	launchs%beam (launchs_rfbeam) (7.9.8.1.276)
spot (4379)	launchs%beam%spot (launchs_rfbeam_spot) (7.9.8.1.278)
waist (4381)	launchs%beam%spot%waist (matflt_type) (7.9.8.1.15)
angle (4381)	launchs%beam%spot%angle (vecflt_type) (7.9.8.1.18)
phaseellipse (4379)	launchs%beam%phaseellipse (launchs_rfbeam_phaseellipse) (7.9.8.1.277)
invcurvrad (4380)	launchs%beam%phaseellipse%invcurvrad (matflt_type) (7.9.8.1.15)
angle (4380)	launchs%beam%phaseellipse%angle (vecflt_type) (7.9.8.1.18)
codeparam (4153)	launchs%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	launchs%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	launchs%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	launchs%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	launchs%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	launchs%codeparam%output_flag (integer) (7.9.8.1.3)
time (4153)	launchs%time (float) (7.9.8.1.2)

7.9.8.2.29 lithiumdiag

datainfo (4154)	lithiumdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	lithiumdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	lithiumdiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	lithiumdiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	lithiumdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	lithiumdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	lithiumdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	lithiumdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	lithiumdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	lithiumdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	lithiumdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	lithiumdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	lithiumdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	lithiumdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	lithiumdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	lithiumdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	lithiumdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	lithiumdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	lithiumdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4154)	lithiumdiag%setup (lithsetup) (7.9.8.1.284)
position (4387)	lithiumdiag%setup%position (rzphi1D) (7.9.8.1.393)
r (4496)	lithiumdiag%setup%position%r (vecflt_type) (7.9.8.1.18)
z (4496)	lithiumdiag%setup%position%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lithiumdiag%setup%position%phi (vecflt_type) (7.9.8.1.18)
measure (4154)	lithiumdiag%measure (lithmeasure) (7.9.8.1.283)
ne (4386)	lithiumdiag%measure%ne (exp1D) (7.9.8.1.225)
value (4328)	lithiumdiag%measure%ne%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	lithiumdiag%measure%ne%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	lithiumdiag%measure%ne%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4154)	lithiumdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	lithiumdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	lithiumdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	lithiumdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	lithiumdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	lithiumdiag%codeparam%output_flag (integer) (7.9.8.1.3)

time (4154)	lithiumdiag%time (float) (7.9.8.1.2)

7.9.8.2.30 magdiag

datainfo (4155)	magdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	magdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	magdiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	magdiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	magdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	magdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	magdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	magdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	magdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	magdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	magdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	magdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	magdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	magdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	magdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	magdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	magdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	magdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	magdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
ip (4155)	magdiag%ip (exp0D) (7.9.8.1.224)
value (4327)	magdiag%ip%value (float) (7.9.8.1.2)
abserror (4327)	magdiag%ip%abserror (float) (7.9.8.1.2)
relerror (4327)	magdiag%ip%relerror (float) (7.9.8.1.2)
diamagflux (4155)	magdiag%diamagflux (exp0D) (7.9.8.1.224)
value (4327)	magdiag%diamagflux%value (float) (7.9.8.1.2)
abserror (4327)	magdiag%diamagflux%abserror (float) (7.9.8.1.2)
relerror (4327)	magdiag%diamagflux%relerror (float) (7.9.8.1.2)
diamagener (4155)	magdiag%diamagener (exp0D) (7.9.8.1.224)
value (4327)	magdiag%diamagener%value (float) (7.9.8.1.2)
abserror (4327)	magdiag%diamagener%abserror (float) (7.9.8.1.2)
relerror (4327)	magdiag%diamagener%relerror (float) (7.9.8.1.2)
flux_loops (4155)	magdiag%flux_loops (flux_loops) (7.9.8.1.232)
setup_floops (4335)	magdiag%flux_loops%setup_floops (setup_floops) (7.9.8.1.423)
name (4526)	magdiag%flux_loops%setup_floops%name (vecstring_type) (7.9.8.1.20)
id (4526)	magdiag%flux_loops%setup_floops%id (vecstring_type) (7.9.8.1.20)
position (4526)	magdiag%flux_loops%setup_floops%position (rzphi2D) (7.9.8.1.396)
r (4499)	magdiag%flux_loops%setup_floops%position%r (matflt_type) (7.9.8.1.15)
z (4499)	magdiag%flux_loops%setup_floops%position%z (matflt_type) (7.9.8.1.15)
phi (4499)	magdiag%flux_loops%setup_floops%position%phi (matflt_type) (7.9.8.1.15)
npoints (4526)	magdiag%flux_loops%setup_floops%npoints (vecint_type) (7.9.8.1.19)
measure (4335)	magdiag%flux_loops%measure (exp1D) (7.9.8.1.225)
value (4328)	magdiag%flux_loops%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	magdiag%flux_loops%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	magdiag%flux_loops%measure%relerror (vecflt_type) (7.9.8.1.18)
bpol_probes (4155)	magdiag%bpol_probes (bpol_probes) (7.9.8.1.98)
setup_bprobe (4201)	magdiag%bpol_probes%setup_bprobe (setup_bprobe) (7.9.8.1.422)
name (4525)	magdiag%bpol_probes%setup_bprobe%name (vecstring_type) (7.9.8.1.20)
id (4525)	magdiag%bpol_probes%setup_bprobe%id (vecstring_type) (7.9.8.1.20)
position (4525)	magdiag%bpol_probes%setup_bprobe%position (rz1D) (7.9.8.1.387)
r (4490)	magdiag%bpol_probes%setup_bprobe%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	magdiag%bpol_probes%setup_bprobe%position%z (vecflt_type) (7.9.8.1.18)
polangle (4525)	magdiag%bpol_probes%setup_bprobe%polangle (vecflt_type) (7.9.8.1.18)
torangle (4525)	magdiag%bpol_probes%setup_bprobe%torangle (vecflt_type) (7.9.8.1.18)
area (4525)	magdiag%bpol_probes%setup_bprobe%area (vecflt_type) (7.9.8.1.18)
length (4525)	magdiag%bpol_probes%setup_bprobe%length (vecflt_type) (7.9.8.1.18)
turns (4525)	magdiag%bpol_probes%setup_bprobe%turns (vecint_type) (7.9.8.1.19)
measure (4201)	magdiag%bpol_probes%measure (exp1D) (7.9.8.1.225)

value (4328)	magdiag%bpol_probes%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	magdiag%bpol_probes%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	magdiag%bpol_probes%measure%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4155)	magdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	magdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	magdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	magdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	magdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	magdiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4155)	magdiag%time (float) (7.9.8.1.2)

7.9.8.2.31 mhd

datainfo (4156)	mhd%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	mhd%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	mhd%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	mhd%datainfo%source (string) (7.9.8.1.4)
comment (4265)	mhd%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	mhd%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	mhd%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	mhd%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	mhd%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	mhd%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	mhd%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	mhd%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	mhd%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	mhd%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	mhd%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	mhd%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	mhd%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	mhd%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	mhd%datainfo%putinfo%rights (string) (7.9.8.1.4)
toroid_field (4156)	mhd%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	mhd%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	mhd%toroid_field%b0 (float) (7.9.8.1.2)
n (4156)	mhd%n(:) (mhd_mode) (7.9.8.1.292)
modenum (4395)	mhd%n(:)%modenum (integer) (7.9.8.1.3)
growthrate (4395)	mhd%n(:)%growthrate (float) (7.9.8.1.2)
frequency (4395)	mhd%n(:)%frequency (float) (7.9.8.1.2)
plasma (4395)	mhd%n(:)%plasma (mhd_plasma) (7.9.8.1.293)
psi (4396)	mhd%n(:)%plasma%psi (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4396)	mhd%n(:)%plasma%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4396)	mhd%n(:)%plasma%rho_tor (vecflt_type) (7.9.8.1.18)
m (4396)	mhd%n(:)%plasma%m (matflt_type) (7.9.8.1.15)
disp_perp (4396)	mhd%n(:)%plasma%disp_perp (matcplx_type) (7.9.8.1.14)
disp_par (4396)	mhd%n(:)%plasma%disp_par (matcplx_type) (7.9.8.1.14)
tau_alfven (4396)	mhd%n(:)%plasma%tau_alfven (vecflt_type) (7.9.8.1.18)
tau_res (4396)	mhd%n(:)%plasma%tau_res (vecflt_type) (7.9.8.1.18)
coord_sys (4396)	mhd%n(:)%plasma%coord_sys (coord_sys) (7.9.8.1.129)
grid_type (4232)	mhd%n(:)%plasma%coord_sys%grid_type (string) (7.9.8.1.4)
grid (4232)	mhd%n(:)%plasma%coord_sys%grid (reggrid) (7.9.8.1.382)
dim1 (4485)	mhd%n(:)%plasma%coord_sys%grid%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4485)	mhd%n(:)%plasma%coord_sys%grid%dim2 (vecflt_type) (7.9.8.1.18)
jacobian (4232)	mhd%n(:)%plasma%coord_sys%jacobian (matflt_type) (7.9.8.1.15)
g_11 (4232)	mhd%n(:)%plasma%coord_sys%g_11 (matflt_type) (7.9.8.1.15)
g_12 (4232)	mhd%n(:)%plasma%coord_sys%g_12 (matflt_type) (7.9.8.1.15)
g_13 (4232)	mhd%n(:)%plasma%coord_sys%g_13 (matflt_type) (7.9.8.1.15)
g_22 (4232)	mhd%n(:)%plasma%coord_sys%g_22 (matflt_type) (7.9.8.1.15)
g_23 (4232)	mhd%n(:)%plasma%coord_sys%g_23 (matflt_type) (7.9.8.1.15)
g_33 (4232)	mhd%n(:)%plasma%coord_sys%g_33 (matflt_type) (7.9.8.1.15)
position (4232)	mhd%n(:)%plasma%coord_sys%position (rz2D) (7.9.8.1.390)

r (4493)	mhd%n(:)%plasma%coord_sys%position%r (matflt_type) (7.9.8.1.15)
z (4493)	mhd%n(:)%plasma%coord_sys%position%z (matflt_type) (7.9.8.1.15)
a_pert (4396)	mhd%n(:)%plasma%a_pert (mhd_vector) (7.9.8.1.296)
coord1 (4399)	mhd%n(:)%plasma%a_pert%coord1 (matcplx_type) (7.9.8.1.14)
coord2 (4399)	mhd%n(:)%plasma%a_pert%coord2 (matcplx_type) (7.9.8.1.14)
coord3 (4399)	mhd%n(:)%plasma%a_pert%coord3 (matcplx_type) (7.9.8.1.14)
b_pert (4396)	mhd%n(:)%plasma%b_pert (mhd_vector) (7.9.8.1.296)
coord1 (4399)	mhd%n(:)%plasma%b_pert%coord1 (matcplx_type) (7.9.8.1.14)
coord2 (4399)	mhd%n(:)%plasma%b_pert%coord2 (matcplx_type) (7.9.8.1.14)
coord3 (4399)	mhd%n(:)%plasma%b_pert%coord3 (matcplx_type) (7.9.8.1.14)
v_pert (4396)	mhd%n(:)%plasma%v_pert (mhd_vector) (7.9.8.1.296)
coord1 (4399)	mhd%n(:)%plasma%v_pert%coord1 (matcplx_type) (7.9.8.1.14)
coord2 (4399)	mhd%n(:)%plasma%v_pert%coord2 (matcplx_type) (7.9.8.1.14)
coord3 (4399)	mhd%n(:)%plasma%v_pert%coord3 (matcplx_type) (7.9.8.1.14)
p_pert (4396)	mhd%n(:)%plasma%p_pert (matcplx_type) (7.9.8.1.14)
rho_mass_per (4396)	mhd%n(:)%plasma%rho_mass_per (matcplx_type) (7.9.8.1.14)
temp_per (4396)	mhd%n(:)%plasma%temp_per (matcplx_type) (7.9.8.1.14)
vacuum (4395)	mhd%n(:)%vacuum (mhd_vacuum) (7.9.8.1.295)
m (4398)	mhd%n(:)%vacuum%m (matflt_type) (7.9.8.1.15)
coord_sys (4398)	mhd%n(:)%vacuum%coord_sys (coord_sys) (7.9.8.1.129)
grid_type (4232)	mhd%n(:)%vacuum%coord_sys%grid_type (string) (7.9.8.1.4)
grid (4232)	mhd%n(:)%vacuum%coord_sys%grid (reggrid) (7.9.8.1.382)
dim1 (4485)	mhd%n(:)%vacuum%coord_sys%grid%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4485)	mhd%n(:)%vacuum%coord_sys%grid%dim2 (vecflt_type) (7.9.8.1.18)
jacobian (4232)	mhd%n(:)%vacuum%coord_sys%jacobian (matflt_type) (7.9.8.1.15)
g_11 (4232)	mhd%n(:)%vacuum%coord_sys%g_11 (matflt_type) (7.9.8.1.15)
g_12 (4232)	mhd%n(:)%vacuum%coord_sys%g_12 (matflt_type) (7.9.8.1.15)
g_13 (4232)	mhd%n(:)%vacuum%coord_sys%g_13 (matflt_type) (7.9.8.1.15)
g_22 (4232)	mhd%n(:)%vacuum%coord_sys%g_22 (matflt_type) (7.9.8.1.15)
g_23 (4232)	mhd%n(:)%vacuum%coord_sys%g_23 (matflt_type) (7.9.8.1.15)
g_33 (4232)	mhd%n(:)%vacuum%coord_sys%g_33 (matflt_type) (7.9.8.1.15)
position (4232)	mhd%n(:)%vacuum%coord_sys%position (rz2D) (7.9.8.1.390)
r (4493)	mhd%n(:)%vacuum%coord_sys%position%r (matflt_type) (7.9.8.1.15)
z (4493)	mhd%n(:)%vacuum%coord_sys%position%z (matflt_type) (7.9.8.1.15)
a_pert (4398)	mhd%n(:)%vacuum%a_pert (mhd_vector) (7.9.8.1.296)
coord1 (4399)	mhd%n(:)%vacuum%a_pert%coord1 (matcplx_type) (7.9.8.1.14)
coord2 (4399)	mhd%n(:)%vacuum%a_pert%coord2 (matcplx_type) (7.9.8.1.14)
coord3 (4399)	mhd%n(:)%vacuum%a_pert%coord3 (matcplx_type) (7.9.8.1.14)
b_pert (4398)	mhd%n(:)%vacuum%b_pert (mhd_vector) (7.9.8.1.296)
coord1 (4399)	mhd%n(:)%vacuum%b_pert%coord1 (matcplx_type) (7.9.8.1.14)
coord2 (4399)	mhd%n(:)%vacuum%b_pert%coord2 (matcplx_type) (7.9.8.1.14)
coord3 (4399)	mhd%n(:)%vacuum%b_pert%coord3 (matcplx_type) (7.9.8.1.14)
time (4156)	mhd%time (float) (7.9.8.1.2)
codeparam (4156)	mhd%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	mhd%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	mhd%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	mhd%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	mhd%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	mhd%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.32 msediag

datainfo (4157)	msediag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	msediag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	msediag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	msediag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	msediag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	msediag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	msediag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	msediag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	msediag%datainfo%whatref (whatref) (7.9.8.1.534)

user (4637)	msediag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	msediag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	msediag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	msediag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	msediag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	msediag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	msediag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	msediag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	msediag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	msediag%datainfo%putinfo%rights (string) (7.9.8.1.4)
polarimetry (4157)	msediag%polarimetry (polarimetry) (7.9.8.1.362)
setup (4465)	msediag%polarimetry%setup (msediag_setup_polarimetry) (7.9.8.1.310)
rzgamma (4413)	msediag%polarimetry%setup%rzgamma (rzphidrdzdphi1D) (7.9.8.1.398)
r (4501)	msediag%polarimetry%setup%rzgamma%r (vecflt_type) (7.9.8.1.18)
z (4501)	msediag%polarimetry%setup%rzgamma%z (vecflt_type) (7.9.8.1.18)
phi (4501)	msediag%polarimetry%setup%rzgamma%phi (vecflt_type) (7.9.8.1.18)
dr (4501)	msediag%polarimetry%setup%rzgamma%dr (vecflt_type) (7.9.8.1.18)
dz (4501)	msediag%polarimetry%setup%rzgamma%dz (vecflt_type) (7.9.8.1.18)
dphi (4501)	msediag%polarimetry%setup%rzgamma%dphi (vecflt_type) (7.9.8.1.18)
geom_coef (4413)	msediag%polarimetry%setup%geom_coef (matflt_type) (7.9.8.1.15)
measure (4465)	msediag%polarimetry%measure (exp1D) (7.9.8.1.225)
value (4328)	msediag%polarimetry%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	msediag%polarimetry%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	msediag%polarimetry%measure%relerror (vecflt_type) (7.9.8.1.18)
spectral (4157)	msediag%spectral (spectral) (7.9.8.1.440)
emissivity (4543)	msediag%spectral%emissivity (msediag_emissivity) (7.9.8.1.305)
wavelength (4408)	msediag%spectral%emissivity%wavelength (vecflt_type) (7.9.8.1.18)
emiss_chord (4408)	msediag%spectral%emissivity%emiss_chord(:) (msediag_emiss_chord) (7.9.8.1.304)
volume (4407)	msediag%spectral%emissivity%emiss_chord(:)%volume (float) (7.9.8.1.2)
setup (4407)	msediag%spectral%emissivity%emiss_chord(:)%setup (rzphi1D) (7.9.8.1.393)
r (4496)	msediag%spectral%emissivity%emiss_chord(:)%setup%r (vecflt_type) (7.9.8.1.18)
z (4496)	msediag%spectral%emissivity%emiss_chord(:)%setup%z (vecflt_type) (7.9.8.1.18)
phi (4496)	msediag%spectral%emissivity%emiss_chord(:)%setup%phi (vecflt_type) (7.9.8.1.18)
polarization (4407)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:) (msediag_polarization) (7.9.8.1.306)
type (4409)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type (identifier) (7.9.8.1.263)
id (4366)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%id (string) (7.9.8.1.4)
flag (4366)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%type%description (string) (7.9.8.1.4)
spec_emiss (4409)	msediag%spectral%emissivity%emiss_chord(:)%polarization(:)%spec_emiss (matflt_type) (7.9.8.1.15)
quantiaxis (4407)	msediag%spectral%emissivity%emiss_chord(:)%quantiaxis (vecflt_type) (7.9.8.1.18)
radiance (4543)	msediag%spectral%radiance (msediag_radiance) (7.9.8.1.308)
wavelength (4411)	msediag%spectral%radiance%wavelength (exp1D) (7.9.8.1.225)
value (4328)	msediag%spectral%radiance%wavelength%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	msediag%spectral%radiance%wavelength%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	msediag%spectral%radiance%wavelength%relerror (vecflt_type) (7.9.8.1.18)
radia_chord (4411)	msediag%spectral%radiance%radia_chord(:) (msediag_radia_chord) (7.9.8.1.307)
setup (4410)	msediag%spectral%radiance%radia_chord(:)%setup (msediag_setup) (7.9.8.1.309)
pivot_point (4412)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point (rzphi0D) (7.9.8.1.392)
r (4495)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%r (float) (7.9.8.1.2)
z (4495)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%z (float) (7.9.8.1.2)
phi (4495)	msediag%spectral%radiance%radia_chord(:)%setup%pivot_point%phi (float) (7.9.8.1.2)
horchordang (4412)	msediag%spectral%radiance%radia_chord(:)%setup%horchordang (float) (7.9.8.1.2)
verchordang (4412)	msediag%spectral%radiance%radia_chord(:)%setup%verchordang (float) (7.9.8.1.2)
second_point (4412)	msediag%spectral%radiance%radia_chord(:)%setup%second_point (rzphi0D) (7.9.8.1.392)
r (4495)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%r (float) (7.9.8.1.2)
z (4495)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%z (float) (7.9.8.1.2)
phi (4495)	msediag%spectral%radiance%radia_chord(:)%setup%second_point%phi (float) (7.9.8.1.2)
stokes (4410)	msediag%spectral%radiance%radia_chord(:)%stokes(:) (msediag_stokes) (7.9.8.1.311)
type (4414)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type (identifier) (7.9.8.1.263)

id (4366)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%id (string) (7.9.8.1.4)
flag (4366)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%type%description (string) (7.9.8.1.4)
vector (4414)	msediag%spectral%radiance%radia_chord(:)%stokes(:)%vector (matflt_type) (7.9.8.1.15)
totradiance (4410)	msediag%spectral%radiance%radia_chord(:)%totradiance (exp1D) (7.9.8.1.225)
value (4328)	msediag%spectral%radiance%radia_chord(:)%totradiance%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	msediag%spectral%radiance%radia_chord(:)%totradiance%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	msediag%spectral%radiance%radia_chord(:)%totradiance%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4543)	msediag%spectral%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	msediag%spectral%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	msediag%spectral%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	msediag%spectral%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	msediag%spectral%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	msediag%spectral%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4157)	msediag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	msediag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	msediag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	msediag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	msediag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	msediag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4157)	msediag%time (float) (7.9.8.1.2)

7.9.8.2.33 nbi

datainfo (4158)	nbi%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	nbi%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	nbi%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	nbi%datainfo%source (string) (7.9.8.1.4)
comment (4265)	nbi%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	nbi%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	nbi%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	nbi%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	nbi%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	nbi%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	nbi%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	nbi%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	nbi%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	nbi%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	nbi%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	nbi%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	nbi%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	nbi%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	nbi%datainfo%putinfo%rights (string) (7.9.8.1.4)
nbi_unit (4158)	nbi%nbi_unit(:) (nbi_unit) (7.9.8.1.314)
name (4417)	nbi%nbi_unit(:)%name (string) (7.9.8.1.4)
inj_spec (4417)	nbi%nbi_unit(:)%inj_spec (inj_spec) (7.9.8.1.267)
amn (4370)	nbi%nbi_unit(:)%inj_spec%amn (float) (7.9.8.1.2)
zn (4370)	nbi%nbi_unit(:)%inj_spec%zn (float) (7.9.8.1.2)
pow_unit (4417)	nbi%nbi_unit(:)%pow_unit (exp0D) (7.9.8.1.224)
value (4327)	nbi%nbi_unit(:)%pow_unit%value (float) (7.9.8.1.2)
abserror (4327)	nbi%nbi_unit(:)%pow_unit%abserror (float) (7.9.8.1.2)
relerror (4327)	nbi%nbi_unit(:)%pow_unit%relerror (float) (7.9.8.1.2)
inj_eng_unit (4417)	nbi%nbi_unit(:)%inj_eng_unit (exp0D) (7.9.8.1.224)
value (4327)	nbi%nbi_unit(:)%inj_eng_unit%value (float) (7.9.8.1.2)
abserror (4327)	nbi%nbi_unit(:)%inj_eng_unit%abserror (float) (7.9.8.1.2)
relerror (4327)	nbi%nbi_unit(:)%inj_eng_unit%relerror (float) (7.9.8.1.2)
beamcurrfrac (4417)	nbi%nbi_unit(:)%beamcurrfrac (exp1D) (7.9.8.1.225)
value (4328)	nbi%nbi_unit(:)%beamcurrfrac%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	nbi%nbi_unit(:)%beamcurrfrac%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	nbi%nbi_unit(:)%beamcurrfrac%relerror (vecflt_type) (7.9.8.1.18)
beampowrfrac (4417)	nbi%nbi_unit(:)%beampowrfrac (exp1D) (7.9.8.1.225)

value (4328)	nbi%nbi_unit(:)%beampowrfrac%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	nbi%nbi_unit(:)%beampowrfrac%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	nbi%nbi_unit(:)%beampowrfrac%relerror (vecflt_type) (7.9.8.1.18)
beamletgroup (4417)	nbi%nbi_unit(:)%beamletgroup(:) (beamletgroup) (7.9.8.1.87)
position (4190)	nbi%nbi_unit(:)%beamletgroup(:)%position (rzphi0D) (7.9.8.1.392)
r (4495)	nbi%nbi_unit(:)%beamletgroup(:)%position%r (float) (7.9.8.1.2)
z (4495)	nbi%nbi_unit(:)%beamletgroup(:)%position%z (float) (7.9.8.1.2)
phi (4495)	nbi%nbi_unit(:)%beamletgroup(:)%position%phi (float) (7.9.8.1.2)
tang_rad (4190)	nbi%nbi_unit(:)%beamletgroup(:)%tang_rad (float) (7.9.8.1.2)
angle (4190)	nbi%nbi_unit(:)%beamletgroup(:)%angle (float) (7.9.8.1.2)
direction (4190)	nbi%nbi_unit(:)%beamletgroup(:)%direction (integer) (7.9.8.1.3)
width_horiz (4190)	nbi%nbi_unit(:)%beamletgroup(:)%width_horiz (float) (7.9.8.1.2)
width_vert (4190)	nbi%nbi_unit(:)%beamletgroup(:)%width_vert (float) (7.9.8.1.2)
focussing (4190)	nbi%nbi_unit(:)%beamletgroup(:)%focussing (focussing) (7.9.8.1.236)
focal_len_hz (4339)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_hz (float) (7.9.8.1.2)
focal_len_vc (4339)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%focal_len_vc (float) (7.9.8.1.2)
width_min_hz (4339)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_hz (float) (7.9.8.1.2)
width_min_vc (4339)	nbi%nbi_unit(:)%beamletgroup(:)%focussing%width_min_vc (float) (7.9.8.1.2)
divergence (4190)	nbi%nbi_unit(:)%beamletgroup(:)%divergence (divergence) (7.9.8.1.200)
frac_divcomp (4303)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%frac_divcomp (vecflt_type) (7.9.8.1.18)
div_vert (4303)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_vert (vecflt_type) (7.9.8.1.18)
div_horiz (4303)	nbi%nbi_unit(:)%beamletgroup(:)%divergence%div_horiz (vecflt_type) (7.9.8.1.18)
beamlets (4190)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets (beamlets) (7.9.8.1.88)
position (4191)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position (rzphi1D) (7.9.8.1.393)
r (4496)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%r (vecflt_type) (7.9.8.1.18)
z (4496)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%z (vecflt_type) (7.9.8.1.18)
phi (4496)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%position%phi (vecflt_type) (7.9.8.1.18)
tang_rad_blt (4191)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%tang_rad_blt (vecflt_type) (7.9.8.1.18)
angle_blt (4191)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%angle_blt (vecflt_type) (7.9.8.1.18)
pow_frc_blt (4191)	nbi%nbi_unit(:)%beamletgroup(:)%beamlets%pow_frc_blt (vecflt_type) (7.9.8.1.18)
wall (4417)	nbi%nbi_unit(:)%wall (nbi_nbi_unit_wall) (7.9.8.1.312)
surface (4415)	nbi%nbi_unit(:)%wall%surface (nbi_nbi_unit_wall_surface) (7.9.8.1.313)
triangle (4416)	nbi%nbi_unit(:)%wall%surface%triangle(:) (trianglexyz) (7.9.8.1.494)
point1 (4597)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point1%z (float) (7.9.8.1.2)
point2 (4597)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point2%z (float) (7.9.8.1.2)
point3 (4597)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%triangle(:)%point3%z (float) (7.9.8.1.2)
rectangle (4416)	nbi%nbi_unit(:)%wall%surface%rectangle(:) (rectanglexyz) (7.9.8.1.374)
point01 (4477)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point01%z (float) (7.9.8.1.2)
point11 (4477)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point11%z (float) (7.9.8.1.2)
point10 (4477)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%surface%rectangle(:)%point10%z (float) (7.9.8.1.2)
collimator (4415)	nbi%nbi_unit(:)%wall%collimator(:) (flat_polygon) (7.9.8.1.230)
origin (4333)	nbi%nbi_unit(:)%wall%collimator(:)%origin (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%collimator(:)%origin%x (float) (7.9.8.1.2)

y (4640)	nbi%nbi_unit(:)%wall%collimator(:)%origin%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%collimator(:)%origin%z (float) (7.9.8.1.2)
basis1 (4333)	nbi%nbi_unit(:)%wall%collimator(:)%basis1 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis1%z (float) (7.9.8.1.2)
basis2 (4333)	nbi%nbi_unit(:)%wall%collimator(:)%basis2 (xyz0D) (7.9.8.1.537)
x (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%x (float) (7.9.8.1.2)
y (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%y (float) (7.9.8.1.2)
z (4640)	nbi%nbi_unit(:)%wall%collimator(:)%basis2%z (float) (7.9.8.1.2)
coord1 (4333)	nbi%nbi_unit(:)%wall%collimator(:)%coord1 (vecflt_type) (7.9.8.1.18)
coord2 (4333)	nbi%nbi_unit(:)%wall%collimator(:)%coord2 (vecflt_type) (7.9.8.1.18)
codeparam (4417)	nbi%nbi_unit(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	nbi%nbi_unit(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	nbi%nbi_unit(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	nbi%nbi_unit(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	nbi%nbi_unit(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	nbi%nbi_unit(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4158)	nbi%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	nbi%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	nbi%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	nbi%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	nbi%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	nbi%codeparam%output_flag (integer) (7.9.8.1.3)
time (4158)	nbi%time (float) (7.9.8.1.2)

7.9.8.2.34 neoclassic

datainfo (4159)	neoclassic%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	neoclassic%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	neoclassic%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	neoclassic%datainfo%source (string) (7.9.8.1.4)
comment (4265)	neoclassic%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	neoclassic%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	neoclassic%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	neoclassic%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	neoclassic%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	neoclassic%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	neoclassic%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	neoclassic%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	neoclassic%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	neoclassic%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	neoclassic%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	neoclassic%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	neoclassic%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	neoclassic%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	neoclassic%datainfo%putinfo%rights (string) (7.9.8.1.4)
rho_tor_norm (4159)	neoclassic%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4159)	neoclassic%rho_tor (vecflt_type) (7.9.8.1.18)
composition (4159)	neoclassic%composition (composition) (7.9.8.1.123)
amn (4226)	neoclassic%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	neoclassic%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	neoclassic%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	neoclassic%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	neoclassic%composition%label (vecstring_type) (7.9.8.1.20)
desc_impur (4159)	neoclassic%desc_impur (desc_impur) (7.9.8.1.164)
amn (4267)	neoclassic%desc_impur%amn (vecflt_type) (7.9.8.1.18)
zn (4267)	neoclassic%desc_impur%zn (vecint_type) (7.9.8.1.19)
i_ion (4267)	neoclassic%desc_impur%i_ion (vecint_type) (7.9.8.1.19)
nzimp (4267)	neoclassic%desc_impur%nzimp (vecint_type) (7.9.8.1.19)
zmin (4267)	neoclassic%desc_impur%zmin (matint_type) (7.9.8.1.16)

zmax (4267)	neoclassic%desc_impur%zmax (matint_type) (7.9.8.1.16)
label (4267)	neoclassic%desc_impur%label (vecstring_type) (7.9.8.1.20)
compositions (4159)	neoclassic%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	neoclassic%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	neoclassic%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	neoclassic%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	neoclassic%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	neoclassic%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	neoclassic%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	neoclassic%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	neoclassic%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	neoclassic%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	neoclassic%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	neoclassic%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	neoclassic%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	neoclassic%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	neoclassic%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	neoclassic%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	neoclassic%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	neoclassic%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	neoclassic%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	neoclassic%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	neoclassic%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	neoclassic%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	neoclassic%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	neoclassic%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	neoclassic%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	neoclassic%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	neoclassic%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	neoclassic%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	neoclassic%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	neoclassic%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	neoclassic%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	neoclassic%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	neoclassic%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	neoclassic%compositions%signature%description (string) (7.9.8.1.4)
ni_neo (4159)	neoclassic%ni_neo (transcoefion) (7.9.8.1.491)
diff_eff (4594)	neoclassic%ni_neo%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4594)	neoclassic%ni_neo%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4594)	neoclassic%ni_neo%exchange (matflt_type) (7.9.8.1.15)
qgi (4594)	neoclassic%ni_neo%qgi (matflt_type) (7.9.8.1.15)
flux (4594)	neoclassic%ni_neo%flux (matflt_type) (7.9.8.1.15)
off_diagonal (4594)	neoclassic%ni_neo%off_diagonal (offdiagion) (7.9.8.1.330)
d_ni (4433)	neoclassic%ni_neo%off_diagonal%d_ni (array3dflt_type) (7.9.8.1.7)
d_ti (4433)	neoclassic%ni_neo%off_diagonal%d_ti (array3dflt_type) (7.9.8.1.7)
d_ne (4433)	neoclassic%ni_neo%off_diagonal%d_ne (matflt_type) (7.9.8.1.15)
d_te (4433)	neoclassic%ni_neo%off_diagonal%d_te (matflt_type) (7.9.8.1.15)
d_epar (4433)	neoclassic%ni_neo%off_diagonal%d_epar (matflt_type) (7.9.8.1.15)
d_mtor (4433)	neoclassic%ni_neo%off_diagonal%d_mtor (matflt_type) (7.9.8.1.15)
flag (4594)	neoclassic%ni_neo%flag (integer) (7.9.8.1.3)
ne_neo (4159)	neoclassic%ne_neo (transcoefel) (7.9.8.1.489)
diff_eff (4592)	neoclassic%ne_neo%diff_eff (vecflt_type) (7.9.8.1.18)
vconv_eff (4592)	neoclassic%ne_neo%vconv_eff (vecflt_type) (7.9.8.1.18)
flux (4592)	neoclassic%ne_neo%flux (vecflt_type) (7.9.8.1.18)
off_diagonal (4592)	neoclassic%ne_neo%off_diagonal (offdiagel) (7.9.8.1.329)
d_ni (4432)	neoclassic%ne_neo%off_diagonal%d_ni (matflt_type) (7.9.8.1.15)
d_ti (4432)	neoclassic%ne_neo%off_diagonal%d_ti (matflt_type) (7.9.8.1.15)
d_ne (4432)	neoclassic%ne_neo%off_diagonal%d_ne (vecflt_type) (7.9.8.1.18)
d_te (4432)	neoclassic%ne_neo%off_diagonal%d_te (vecflt_type) (7.9.8.1.18)
d_epar (4432)	neoclassic%ne_neo%off_diagonal%d_epar (vecflt_type) (7.9.8.1.18)

d_mtor (4432)	neoclassic%ne_neo%off_diagonal%d_mtor (vecflt_type) (7.9.8.1.18)
flag (4592)	neoclassic%ne_neo%flag (integer) (7.9.8.1.3)
nz_neo (4159)	neoclassic%nz_neo(:) (transcoefimp) (7.9.8.1.490)
diff_eff (4593)	neoclassic%nz_neo(:)%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4593)	neoclassic%nz_neo(:)%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4593)	neoclassic%nz_neo(:)%exchange (matflt_type) (7.9.8.1.15)
flux (4593)	neoclassic%nz_neo(:)%flux (matflt_type) (7.9.8.1.15)
flag (4593)	neoclassic%nz_neo(:)%flag (integer) (7.9.8.1.3)
ti_neo (4159)	neoclassic%ti_neo (transcoefion) (7.9.8.1.491)
diff_eff (4594)	neoclassic%ti_neo%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4594)	neoclassic%ti_neo%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4594)	neoclassic%ti_neo%exchange (matflt_type) (7.9.8.1.15)
qgi (4594)	neoclassic%ti_neo%qgi (matflt_type) (7.9.8.1.15)
flux (4594)	neoclassic%ti_neo%flux (matflt_type) (7.9.8.1.15)
off_diagonal (4594)	neoclassic%ti_neo%off_diagonal (offdiagion) (7.9.8.1.330)
d_ni (4433)	neoclassic%ti_neo%off_diagonal%d_ni (array3dflt_type) (7.9.8.1.7)
d_ti (4433)	neoclassic%ti_neo%off_diagonal%d_ti (array3dflt_type) (7.9.8.1.7)
d_ne (4433)	neoclassic%ti_neo%off_diagonal%d_ne (matflt_type) (7.9.8.1.15)
d_te (4433)	neoclassic%ti_neo%off_diagonal%d_te (matflt_type) (7.9.8.1.15)
d_epar (4433)	neoclassic%ti_neo%off_diagonal%d_epar (matflt_type) (7.9.8.1.15)
d_mtor (4433)	neoclassic%ti_neo%off_diagonal%d_mtor (matflt_type) (7.9.8.1.15)
flag (4594)	neoclassic%ti_neo%flag (integer) (7.9.8.1.3)
te_neo (4159)	neoclassic%te_neo (transcoefel) (7.9.8.1.489)
diff_eff (4592)	neoclassic%te_neo%diff_eff (vecflt_type) (7.9.8.1.18)
vconv_eff (4592)	neoclassic%te_neo%vconv_eff (vecflt_type) (7.9.8.1.18)
flux (4592)	neoclassic%te_neo%flux (vecflt_type) (7.9.8.1.18)
off_diagonal (4592)	neoclassic%te_neo%off_diagonal (offdiagel) (7.9.8.1.329)
d_ni (4432)	neoclassic%te_neo%off_diagonal%d_ni (matflt_type) (7.9.8.1.15)
d_ti (4432)	neoclassic%te_neo%off_diagonal%d_ti (matflt_type) (7.9.8.1.15)
d_ne (4432)	neoclassic%te_neo%off_diagonal%d_ne (vecflt_type) (7.9.8.1.18)
d_te (4432)	neoclassic%te_neo%off_diagonal%d_te (vecflt_type) (7.9.8.1.18)
d_epar (4432)	neoclassic%te_neo%off_diagonal%d_epar (vecflt_type) (7.9.8.1.18)
d_mtor (4432)	neoclassic%te_neo%off_diagonal%d_mtor (vecflt_type) (7.9.8.1.18)
flag (4592)	neoclassic%te_neo%flag (integer) (7.9.8.1.3)
tz_neo (4159)	neoclassic%tz_neo(:) (transcoefimp) (7.9.8.1.490)
diff_eff (4593)	neoclassic%tz_neo(:)%diff_eff (matflt_type) (7.9.8.1.15)
vconv_eff (4593)	neoclassic%tz_neo(:)%vconv_eff (matflt_type) (7.9.8.1.15)
exchange (4593)	neoclassic%tz_neo(:)%exchange (matflt_type) (7.9.8.1.15)
flux (4593)	neoclassic%tz_neo(:)%flux (matflt_type) (7.9.8.1.15)
flag (4593)	neoclassic%tz_neo(:)%flag (integer) (7.9.8.1.3)
mtor_neo (4159)	neoclassic%mtor_neo (transcoefel) (7.9.8.1.489)
diff_eff (4592)	neoclassic%mtor_neo%diff_eff (vecflt_type) (7.9.8.1.18)
vconv_eff (4592)	neoclassic%mtor_neo%vconv_eff (vecflt_type) (7.9.8.1.18)
flux (4592)	neoclassic%mtor_neo%flux (vecflt_type) (7.9.8.1.18)
off_diagonal (4592)	neoclassic%mtor_neo%off_diagonal (offdiagel) (7.9.8.1.329)
d_ni (4432)	neoclassic%mtor_neo%off_diagonal%d_ni (matflt_type) (7.9.8.1.15)
d_ti (4432)	neoclassic%mtor_neo%off_diagonal%d_ti (matflt_type) (7.9.8.1.15)
d_ne (4432)	neoclassic%mtor_neo%off_diagonal%d_ne (vecflt_type) (7.9.8.1.18)
d_te (4432)	neoclassic%mtor_neo%off_diagonal%d_te (vecflt_type) (7.9.8.1.18)
d_epar (4432)	neoclassic%mtor_neo%off_diagonal%d_epar (vecflt_type) (7.9.8.1.18)
d_mtor (4432)	neoclassic%mtor_neo%off_diagonal%d_mtor (vecflt_type) (7.9.8.1.18)
flag (4592)	neoclassic%mtor_neo%flag (integer) (7.9.8.1.3)
sigma (4159)	neoclassic%sigma (vecflt_type) (7.9.8.1.18)
jboot (4159)	neoclassic%jboot (vecflt_type) (7.9.8.1.18)
er (4159)	neoclassic%er (vecflt_type) (7.9.8.1.18)
vpol (4159)	neoclassic%vpol (matflt_type) (7.9.8.1.15)
vtor (4159)	neoclassic%vtor (matflt_type) (7.9.8.1.15)
mach (4159)	neoclassic%mach (matflt_type) (7.9.8.1.15)
utheta_e (4159)	neoclassic%utheta_e (vecflt_type) (7.9.8.1.18)
utheta_i (4159)	neoclassic%utheta_i (matflt_type) (7.9.8.1.15)
viscosity_par (4159)	neoclassic%viscosity_par (matflt_type) (7.9.8.1.15)

impurity (4159)	neoclassic%impurity(:) (neoclassic_impurity) (7.9.8.1.316)
utheta_z (4419)	neoclassic%impurity(:)%utheta_z (matflt_type) (7.9.8.1.15)
fext (4159)	neoclassic%fext (array3dflt_type) (7.9.8.1.7)
jext (4159)	neoclassic%jext (vecflt_type) (7.9.8.1.18)
time (4159)	neoclassic%time (float) (7.9.8.1.2)
codeparam (4159)	neoclassic%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	neoclassic%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	neoclassic%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	neoclassic%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	neoclassic%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	neoclassic%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.35 ntm

datainfo (4160)	ntm%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	ntm%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	ntm%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	ntm%datainfo%source (string) (7.9.8.1.4)
comment (4265)	ntm%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	ntm%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	ntm%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	ntm%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	ntm%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	ntm%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	ntm%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	ntm%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	ntm%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	ntm%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	ntm%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	ntm%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	ntm%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	ntm%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	ntm%datainfo%putinfo%rights (string) (7.9.8.1.4)
mode (4160)	ntm%mode(:) (ntm_mode) (7.9.8.1.321)
m (4424)	ntm%mode(:)%m (integer) (7.9.8.1.3)
n (4424)	ntm%mode(:)%n (integer) (7.9.8.1.3)
onset (4424)	ntm%mode(:)%onset(:) (ntm_mode_onset) (7.9.8.1.326)
w_seed (4429)	ntm%mode(:)%onset(:)%w_seed (float) (7.9.8.1.2)
time_onset (4429)	ntm%mode(:)%onset(:)%time_onset (float) (7.9.8.1.2)
time_offset (4429)	ntm%mode(:)%onset(:)%time_offset (float) (7.9.8.1.2)
phase (4429)	ntm%mode(:)%onset(:)%phase (float) (7.9.8.1.2)
description (4429)	ntm%mode(:)%onset(:)%description (string) (7.9.8.1.4)
full_evol (4424)	ntm%mode(:)%full_evol(:) (ntm_mode_full_evol) (7.9.8.1.324)
time_evol (4427)	ntm%mode(:)%full_evol(:)%time_evol (vecflt_type) (7.9.8.1.18)
w (4427)	ntm%mode(:)%full_evol(:)%w (vecflt_type) (7.9.8.1.18)
dwdt (4427)	ntm%mode(:)%full_evol(:)%dwdt (vecflt_type) (7.9.8.1.18)
phase (4427)	ntm%mode(:)%full_evol(:)%phase (vecflt_type) (7.9.8.1.18)
dphasedt (4427)	ntm%mode(:)%full_evol(:)%dphasedt (vecflt_type) (7.9.8.1.18)
frequency (4427)	ntm%mode(:)%full_evol(:)%frequency (vecflt_type) (7.9.8.1.18)
dfrequencydt (4427)	ntm%mode(:)%full_evol(:)%dfrequencydt (vecflt_type) (7.9.8.1.18)
island (4427)	ntm%mode(:)%full_evol(:)%island (ntm_mode_full_evol_island) (7.9.8.1.325)
geometry (4428)	ntm%mode(:)%full_evol(:)%island%geometry (matflt_type) (7.9.8.1.15)
coord_values (4428)	ntm%mode(:)%full_evol(:)%island%coord_values (matflt_type) (7.9.8.1.15)
coord_desc (4428)	ntm%mode(:)%full_evol(:)%island%coord_desc (string) (7.9.8.1.4)
deltaw_value (4427)	ntm%mode(:)%full_evol(:)%deltaw_value (matflt_type) (7.9.8.1.15)
deltaw_name (4427)	ntm%mode(:)%full_evol(:)%deltaw_name (vecstring_type) (7.9.8.1.20)
torque_value (4427)	ntm%mode(:)%full_evol(:)%torque_value (matflt_type) (7.9.8.1.15)
torque_name (4427)	ntm%mode(:)%full_evol(:)%torque_name (vecstring_type) (7.9.8.1.20)
delta_diff (4427)	ntm%mode(:)%full_evol(:)%delta_diff (matflt_type) (7.9.8.1.15)
description (4427)	ntm%mode(:)%full_evol(:)%description (string) (7.9.8.1.4)
rho_tor (4427)	ntm%mode(:)%full_evol(:)%rho_tor (vecflt_type) (7.9.8.1.18)

evolution (4424)	ntm%mode(:)%evolution (ntm_mode_evolution) (7.9.8.1.322)
w (4425)	ntm%mode(:)%evolution%w (float) (7.9.8.1.2)
dwdt (4425)	ntm%mode(:)%evolution%dwdt (float) (7.9.8.1.2)
phase (4425)	ntm%mode(:)%evolution%phase (float) (7.9.8.1.2)
dphasedt (4425)	ntm%mode(:)%evolution%dphasedt (float) (7.9.8.1.2)
frequency (4425)	ntm%mode(:)%evolution%frequency (float) (7.9.8.1.2)
dfrequencydt (4425)	ntm%mode(:)%evolution%dfrequencydt (float) (7.9.8.1.2)
island (4425)	ntm%mode(:)%evolution%island (ntm_mode_evolution_island) (7.9.8.1.323)
geometry (4426)	ntm%mode(:)%evolution%island%geometry (vecflt_type) (7.9.8.1.18)
coord_values (4426)	ntm%mode(:)%evolution%island%coord_values (vecflt_type) (7.9.8.1.18)
coord_desc (4426)	ntm%mode(:)%evolution%island%coord_desc (string) (7.9.8.1.4)
deltaw_value (4425)	ntm%mode(:)%evolution%deltaw_value (vecflt_type) (7.9.8.1.18)
deltaw_name (4425)	ntm%mode(:)%evolution%deltaw_name (vecstring_type) (7.9.8.1.20)
torque_value (4425)	ntm%mode(:)%evolution%torque_value (vecflt_type) (7.9.8.1.18)
torque_name (4425)	ntm%mode(:)%evolution%torque_name (vecstring_type) (7.9.8.1.20)
delta_diff (4425)	ntm%mode(:)%evolution%delta_diff (vecflt_type) (7.9.8.1.18)
description (4425)	ntm%mode(:)%evolution%description (string) (7.9.8.1.4)
rho_tor (4425)	ntm%mode(:)%evolution%rho_tor (float) (7.9.8.1.2)
time (4160)	ntm%time (float) (7.9.8.1.2)
codeparam (4160)	ntm%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	ntm%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	ntm%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	ntm%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	ntm%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	ntm%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.36 orbit

datainfo (4161)	orbit%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	orbit%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	orbit%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	orbit%datainfo%source (string) (7.9.8.1.4)
comment (4265)	orbit%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	orbit%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	orbit%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	orbit%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	orbit%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	orbit%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	orbit%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	orbit%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	orbit%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	orbit%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	orbit%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	orbit%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	orbit%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	orbit%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	orbit%datainfo%putinfo%rights (string) (7.9.8.1.4)
com (4161)	orbit%com (com) (7.9.8.1.109)
amn (4212)	orbit%com%amn (float) (7.9.8.1.2)
zion (4212)	orbit%com%zion (float) (7.9.8.1.2)
energy (4212)	orbit%com%energy (vecflt_type) (7.9.8.1.18)
magn_mom (4212)	orbit%com%magn_mom (vecflt_type) (7.9.8.1.18)
p_phi (4212)	orbit%com%p_phi (vecflt_type) (7.9.8.1.18)
sigma (4212)	orbit%com%sigma (vecint_type) (7.9.8.1.19)
trace (4161)	orbit%trace (trace) (7.9.8.1.488)
time_orb (4591)	orbit%trace%time_orb (matflt_type) (7.9.8.1.15)
ntorb (4591)	orbit%trace%ntorb (vecint_type) (7.9.8.1.19)
r (4591)	orbit%trace%r (matflt_type) (7.9.8.1.15)
z (4591)	orbit%trace%z (matflt_type) (7.9.8.1.15)
phi (4591)	orbit%trace%phi (matflt_type) (7.9.8.1.15)
psi (4591)	orbit%trace%psi (matflt_type) (7.9.8.1.15)

theta_b (4591)	orbit%trace%theta_b (matflt_type) (7.9.8.1.15)
v_parallel (4591)	orbit%trace%v_parallel (matflt_type) (7.9.8.1.15)
v_perp (4591)	orbit%trace%v_perp (matflt_type) (7.9.8.1.15)
global_param (4161)	orbit%global_param (orbit_global_param) (7.9.8.1.332)
orbit_type (4435)	orbit%global_param%orbit_type (vecint_type) (7.9.8.1.19)
omega_b (4435)	orbit%global_param%omega_b (vecflt_type) (7.9.8.1.18)
omega_phi (4435)	orbit%global_param%omega_phi (vecflt_type) (7.9.8.1.18)
omega_c_av (4435)	orbit%global_param%omega_c_av (vecflt_type) (7.9.8.1.18)
special_pos (4435)	orbit%global_param%special_pos (orbit_special_pos) (7.9.8.1.335)
midplane (4438)	orbit%global_param%special_pos%midplane (orbit_midplane) (7.9.8.1.333)
outer (4436)	orbit%global_param%special_pos%midplane%outer (orbit_pos) (7.9.8.1.334)
r (4437)	orbit%global_param%special_pos%midplane%outer%r (vecflt_type) (7.9.8.1.18)
z (4437)	orbit%global_param%special_pos%midplane%outer%z (vecflt_type) (7.9.8.1.18)
phi (4437)	orbit%global_param%special_pos%midplane%outer%phi (vecflt_type) (7.9.8.1.18)
psi (4437)	orbit%global_param%special_pos%midplane%outer%psi (vecflt_type) (7.9.8.1.18)
theta_b (4437)	orbit%global_param%special_pos%midplane%outer%theta_b (vecflt_type) (7.9.8.1.18)
inner (4436)	orbit%global_param%special_pos%midplane%inner (orbit_pos) (7.9.8.1.334)
r (4437)	orbit%global_param%special_pos%midplane%inner%r (vecflt_type) (7.9.8.1.18)
z (4437)	orbit%global_param%special_pos%midplane%inner%z (vecflt_type) (7.9.8.1.18)
phi (4437)	orbit%global_param%special_pos%midplane%inner%phi (vecflt_type) (7.9.8.1.18)
psi (4437)	orbit%global_param%special_pos%midplane%inner%psi (vecflt_type) (7.9.8.1.18)
theta_b (4437)	orbit%global_param%special_pos%midplane%inner%theta_b (vecflt_type) (7.9.8.1.18)
turning_pts (4438)	orbit%global_param%special_pos%turning_pts (orbit_turning_pts) (7.9.8.1.336)
upper (4439)	orbit%global_param%special_pos%turning_pts%upper (orbit_pos) (7.9.8.1.334)
r (4437)	orbit%global_param%special_pos%turning_pts%upper%r (vecflt_type) (7.9.8.1.18)
z (4437)	orbit%global_param%special_pos%turning_pts%upper%z (vecflt_type) (7.9.8.1.18)
phi (4437)	orbit%global_param%special_pos%turning_pts%upper%phi (vecflt_type) (7.9.8.1.18)
psi (4437)	orbit%global_param%special_pos%turning_pts%upper%psi (vecflt_type) (7.9.8.1.18)
theta_b (4437)	orbit%global_param%special_pos%turning_pts%upper%theta_b (vecflt_type) (7.9.8.1.18)
lower (4439)	orbit%global_param%special_pos%turning_pts%lower (orbit_pos) (7.9.8.1.334)
r (4437)	orbit%global_param%special_pos%turning_pts%lower%r (vecflt_type) (7.9.8.1.18)
z (4437)	orbit%global_param%special_pos%turning_pts%lower%z (vecflt_type) (7.9.8.1.18)
phi (4437)	orbit%global_param%special_pos%turning_pts%lower%phi (vecflt_type) (7.9.8.1.18)
psi (4437)	orbit%global_param%special_pos%turning_pts%lower%psi (vecflt_type) (7.9.8.1.18)
theta_b (4437)	orbit%global_param%special_pos%turning_pts%lower%theta_b (vecflt_type) (7.9.8.1.18)
codeparam (4161)	orbit%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	orbit%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	orbit%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	orbit%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	orbit%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	orbit%codeparam%output_flag (integer) (7.9.8.1.3)
time (4161)	orbit%time (float) (7.9.8.1.2)

7.9.8.2.37 pellets

datainfo (4162)	pellets%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	pellets%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	pellets%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	pellets%datainfo%source (string) (7.9.8.1.4)
comment (4265)	pellets%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	pellets%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	pellets%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	pellets%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	pellets%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	pellets%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	pellets%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	pellets%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	pellets%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	pellets%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	pellets%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	pellets%datainfo%putinfo%putmethod (string) (7.9.8.1.4)

putaccess (4473)	pellets%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	pellets%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	pellets%datainfo%putinfo%rights (string) (7.9.8.1.4)
compositions (4162)	pellets%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	pellets%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	pellets%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	pellets%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	pellets%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	pellets%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	pellets%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	pellets%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	pellets%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	pellets%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	pellets%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	pellets%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	pellets%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	pellets%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	pellets%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	pellets%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	pellets%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	pellets%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	pellets%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	pellets%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	pellets%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	pellets%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	pellets%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	pellets%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	pellets%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	pellets%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	pellets%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	pellets%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	pellets%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	pellets%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	pellets%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	pellets%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	pellets%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	pellets%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	pellets%compositions%signature%description (string) (7.9.8.1.4)
pellet (4162)	pellets%pellet(:) (pellet) (7.9.8.1.340)
shape (4443)	pellets%pellet(:)%shape (pellet_shape) (7.9.8.1.347)
type (4450)	pellets%pellet(:)%shape%type (identifier) (7.9.8.1.263)
id (4366)	pellets%pellet(:)%shape%type%id (string) (7.9.8.1.4)
flag (4366)	pellets%pellet(:)%shape%type%flag (integer) (7.9.8.1.3)
description (4366)	pellets%pellet(:)%shape%type%description (string) (7.9.8.1.4)
dimensions (4450)	pellets%pellet(:)%shape%dimensions (vecflt_type) (7.9.8.1.18)
elements (4443)	pellets%pellet(:)%elements (pellet_elements) (7.9.8.1.343)
nucindex (4446)	pellets%pellet(:)%elements%nucindex (vecint_type) (7.9.8.1.19)
density (4446)	pellets%pellet(:)%elements%density (vecflt_type) (7.9.8.1.18)
fraction (4446)	pellets%pellet(:)%elements%fraction (vecflt_type) (7.9.8.1.18)
subl_energy (4446)	pellets%pellet(:)%elements%subl_energy (vecflt_type) (7.9.8.1.18)
geometry (4443)	pellets%pellet(:)%geometry (pellet_geometry) (7.9.8.1.344)
pivot_point (4447)	pellets%pellet(:)%geometry%pivot_point (rzphi0D) (7.9.8.1.392)
r (4495)	pellets%pellet(:)%geometry%pivot_point%r (float) (7.9.8.1.2)
z (4495)	pellets%pellet(:)%geometry%pivot_point%z (float) (7.9.8.1.2)
phi (4495)	pellets%pellet(:)%geometry%pivot_point%phi (float) (7.9.8.1.2)
second_point (4447)	pellets%pellet(:)%geometry%second_point (rzphi0D) (7.9.8.1.392)
r (4495)	pellets%pellet(:)%geometry%second_point%r (float) (7.9.8.1.2)
z (4495)	pellets%pellet(:)%geometry%second_point%z (float) (7.9.8.1.2)
phi (4495)	pellets%pellet(:)%geometry%second_point%phi (float) (7.9.8.1.2)
velocity (4447)	pellets%pellet(:)%geometry%velocity (float) (7.9.8.1.2)
angles (4447)	pellets%pellet(:)%geometry%angles (pellet_angles) (7.9.8.1.341)

horizontal (4444)	pellets%pellet(:)%geometry%angles%horizontal (float) (7.9.8.1.2)
vertical (4444)	pellets%pellet(:)%geometry%angles%vertical (float) (7.9.8.1.2)
pathprofiles (4443)	pellets%pellet(:)%pathprofiles (pellet_pathprofiles) (7.9.8.1.346)
distance (4449)	pellets%pellet(:)%pathprofiles%distance (vecflt_type) (7.9.8.1.18)
rho_tor (4449)	pellets%pellet(:)%pathprofiles%rho_tor (vecflt_type) (7.9.8.1.18)
rho_pol (4449)	pellets%pellet(:)%pathprofiles%rho_pol (vecflt_type) (7.9.8.1.18)
velocity (4449)	pellets%pellet(:)%pathprofiles%velocity (vecflt_type) (7.9.8.1.18)
ne (4449)	pellets%pellet(:)%pathprofiles%ne (vecflt_type) (7.9.8.1.18)
te (4449)	pellets%pellet(:)%pathprofiles%te (vecflt_type) (7.9.8.1.18)
abl_rate (4449)	pellets%pellet(:)%pathprofiles%abl_rate (vecflt_type) (7.9.8.1.18)
abl_particles (4449)	pellets%pellet(:)%pathprofiles%abl_particles (vecflt_type) (7.9.8.1.18)
delta_drift (4449)	pellets%pellet(:)%pathprofiles%delta_drift (vecflt_type) (7.9.8.1.18)
position (4449)	pellets%pellet(:)%pathprofiles%position (rzphi1D) (7.9.8.1.393)
r (4496)	pellets%pellet(:)%pathprofiles%position%r (vecflt_type) (7.9.8.1.18)
z (4496)	pellets%pellet(:)%pathprofiles%position%z (vecflt_type) (7.9.8.1.18)
phi (4496)	pellets%pellet(:)%pathprofiles%position%phi (vecflt_type) (7.9.8.1.18)
deposition (4443)	pellets%pellet(:)%deposition (pellet_deposition) (7.9.8.1.342)
rho_tor (4445)	pellets%pellet(:)%deposition%rho_tor (vecflt_type) (7.9.8.1.18)
rho_pol (4445)	pellets%pellet(:)%deposition%rho_pol (vecflt_type) (7.9.8.1.18)
delta_ne (4445)	pellets%pellet(:)%deposition%delta_ne (vecflt_type) (7.9.8.1.18)
delta_te (4445)	pellets%pellet(:)%deposition%delta_te (vecflt_type) (7.9.8.1.18)
delta_ni (4445)	pellets%pellet(:)%deposition%delta_ni (matflt_type) (7.9.8.1.15)
delta_ti (4445)	pellets%pellet(:)%deposition%delta_ti (matflt_type) (7.9.8.1.15)
delta_vtor (4445)	pellets%pellet(:)%deposition%delta_vtor (matflt_type) (7.9.8.1.15)
impurity (4445)	pellets%pellet(:)%deposition%impurity(:) (pellet_impurity) (7.9.8.1.345)
delta_nz (4448)	pellets%pellet(:)%deposition%impurity(:)%delta_nz (matflt_type) (7.9.8.1.15)
codeparam (4162)	pellets%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	pellets%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	pellets%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	pellets%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	pellets%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	pellets%codeparam%output_flag (integer) (7.9.8.1.3)
time (4162)	pellets%time (float) (7.9.8.1.2)

7.9.8.2.38 pfsystems

datainfo (4163)	pfsystems%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	pfsystems%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	pfsystems%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	pfsystems%datainfo%source (string) (7.9.8.1.4)
comment (4265)	pfsystems%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	pfsystems%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	pfsystems%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	pfsystems%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	pfsystems%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	pfsystems%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	pfsystems%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	pfsystems%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	pfsystems%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	pfsystems%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	pfsystems%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	pfsystems%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	pfsystems%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	pfsystems%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	pfsystems%datainfo%putinfo%rights (string) (7.9.8.1.4)
pfcoils (4163)	pfsystems%pfcoils (pfcoils) (7.9.8.1.350)
desc_pfcoils (4453)	pfsystems%pfcoils%desc_pfcoils (desc_pfcoils) (7.9.8.1.166)
name (4269)	pfsystems%pfcoils%desc_pfcoils%name (vecstring_type) (7.9.8.1.20)
id (4269)	pfsystems%pfcoils%desc_pfcoils%id (vecstring_type) (7.9.8.1.20)
res (4269)	pfsystems%pfcoils%desc_pfcoils%res (vecflt_type) (7.9.8.1.18)
emax (4269)	pfsystems%pfcoils%desc_pfcoils%emax (vecflt_type) (7.9.8.1.18)

structure_cs (4269)	pfsystems%pfcoils%desc_pfcoils%structure_cs (structure_cs) (7.9.8.1.445)
gaptf (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%gaptf (float) (7.9.8.1.2)
ri (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%ri (float) (7.9.8.1.2)
re (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%re (float) (7.9.8.1.2)
jcable (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%jcable (float) (7.9.8.1.2)
current_nom (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%current_nom (float) (7.9.8.1.2)
sigma (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%sigma (float) (7.9.8.1.2)
tiso (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%tiso (float) (7.9.8.1.2)
nlay (4548)	pfsystems%pfcoils%desc_pfcoils%structure_cs%nlay (float) (7.9.8.1.2)
pol_flux_cs (4269)	pfsystems%pfcoils%desc_pfcoils%pol_flux_cs (float) (7.9.8.1.2)
nelement (4269)	pfsystems%pfcoils%desc_pfcoils%nelement (vecint_type) (7.9.8.1.19)
pfelement (4269)	pfsystems%pfcoils%desc_pfcoils%pfelement (pfelement) (7.9.8.1.351)
name (4454)	pfsystems%pfcoils%desc_pfcoils%pfelement%name (vecstring_type) (7.9.8.1.20)
id (4454)	pfsystems%pfcoils%desc_pfcoils%pfelement%id (vecstring_type) (7.9.8.1.20)
turnsign (4454)	pfsystems%pfcoils%desc_pfcoils%pfelement%turnsign (matflt_type) (7.9.8.1.15)
area (4454)	pfsystems%pfcoils%desc_pfcoils%pfelement%area (matflt_type) (7.9.8.1.15)
pfgeometry (4454)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry (pfgeometry) (7.9.8.1.352)
type (4455)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%type (matint_type) (7.9.8.1.16)
npoints (4455)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%npoints (matint_type) (7.9.8.1.16)
rzcoordinate (4455)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate (rz3D) (7.9.8.1.391)
r (4494)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%r (array3dflt_type) (7.9.8.1.7)
z (4494)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzcoordinate%z (array3dflt_type) (7.9.8.1.7)
rzdrdz (4455)	pfsystems%pfcoils%desc_pfcoils%pfelement%pfgeometry%rzdrdz (array3dflt_type) (7.9.8.1.7)
coilcurrent (4453)	pfsystems%pfcoils%coilcurrent (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfcoils%coilcurrent%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfcoils%coilcurrent%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfcoils%coilcurrent%relerror (vecflt_type) (7.9.8.1.18)
coilvoltage (4453)	pfsystems%pfcoils%coilvoltage (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfcoils%coilvoltage%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfcoils%coilvoltage%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfcoils%coilvoltage%relerror (vecflt_type) (7.9.8.1.18)
p_cryo (4453)	pfsystems%pfcoils%p_cryo (float) (7.9.8.1.2)
p_nh (4453)	pfsystems%pfcoils%p_nh (vecflt_type) (7.9.8.1.18)
pfpassive (4163)	pfsystems%pfpassive (pfpassive) (7.9.8.1.354)
name (4457)	pfsystems%pfpassive%name (vecstring_type) (7.9.8.1.20)
area (4457)	pfsystems%pfpassive%area (vecflt_type) (7.9.8.1.18)
res (4457)	pfsystems%pfpassive%res (vecflt_type) (7.9.8.1.18)
eta (4457)	pfsystems%pfpassive%eta (vecflt_type) (7.9.8.1.18)
current (4457)	pfsystems%pfpassive%current (pfpassive_current) (7.9.8.1.355)
toroidal (4458)	pfsystems%pfpassive%current%toroidal (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfpassive%current%toroidal%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfpassive%current%toroidal%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfpassive%current%toroidal%relerror (vecflt_type) (7.9.8.1.18)
poloidal (4458)	pfsystems%pfpassive%current%poloidal (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfpassive%current%poloidal%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfpassive%current%poloidal%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfpassive%current%poloidal%relerror (vecflt_type) (7.9.8.1.18)
pfpageometry (4457)	pfsystems%pfpassive%pfpageometry (pfpageometry) (7.9.8.1.353)
type (4456)	pfsystems%pfpassive%pfpageometry%type (vecint_type) (7.9.8.1.19)
npoints (4456)	pfsystems%pfpassive%pfpageometry%npoints (vecint_type) (7.9.8.1.19)
rzcoordinate (4456)	pfsystems%pfpassive%pfpageometry%rzcoordinate (rz2D) (7.9.8.1.390)
r (4493)	pfsystems%pfpassive%pfpageometry%rzcoordinate%r (matflt_type) (7.9.8.1.15)
z (4493)	pfsystems%pfpassive%pfpageometry%rzcoordinate%z (matflt_type) (7.9.8.1.15)
rzdrdz (4456)	pfsystems%pfpassive%pfpageometry%rzdrdz (matflt_type) (7.9.8.1.15)
pfcircuits (4163)	pfsystems%pfcircuits (pfcircuits) (7.9.8.1.349)
name (4452)	pfsystems%pfcircuits%name (vecstring_type) (7.9.8.1.20)
id (4452)	pfsystems%pfcircuits%id (vecstring_type) (7.9.8.1.20)
type (4452)	pfsystems%pfcircuits%type (vecstring_type) (7.9.8.1.20)
nnodes (4452)	pfsystems%pfcircuits%nnodes (vecint_type) (7.9.8.1.19)

connections (4452)	pfsystems%pfcircuits%connections (array3dint_type) (7.9.8.1.8)
pfsupplies (4163)	pfsystems%pfsupplies (pfsupplies) (7.9.8.1.356)
desc_supply (4459)	pfsystems%pfsupplies%desc_supply (desc_supply) (7.9.8.1.167)
name (4270)	pfsystems%pfsupplies%desc_supply%name (vecstring_type) (7.9.8.1.20)
id (4270)	pfsystems%pfsupplies%desc_supply%id (vecstring_type) (7.9.8.1.20)
type (4270)	pfsystems%pfsupplies%desc_supply%type (vecstring_type) (7.9.8.1.20)
delay (4270)	pfsystems%pfsupplies%desc_supply%delay (vecflt_type) (7.9.8.1.18)
filter (4270)	pfsystems%pfsupplies%desc_supply%filter (filter) (7.9.8.1.229)
num (4332)	pfsystems%pfsupplies%desc_supply%filter%num (matflt_type) (7.9.8.1.15)
den (4332)	pfsystems%pfsupplies%desc_supply%filter%den (matflt_type) (7.9.8.1.15)
imin (4270)	pfsystems%pfsupplies%desc_supply%imin (vecflt_type) (7.9.8.1.18)
imax (4270)	pfsystems%pfsupplies%desc_supply%imax (vecflt_type) (7.9.8.1.18)
res (4270)	pfsystems%pfsupplies%desc_supply%res (vecflt_type) (7.9.8.1.18)
umin (4270)	pfsystems%pfsupplies%desc_supply%umin (vecflt_type) (7.9.8.1.18)
umax (4270)	pfsystems%pfsupplies%desc_supply%umax (vecflt_type) (7.9.8.1.18)
emax (4270)	pfsystems%pfsupplies%desc_supply%emax (vecflt_type) (7.9.8.1.18)
voltage (4459)	pfsystems%pfsupplies%voltage (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfsupplies%voltage%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfsupplies%voltage%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfsupplies%voltage%relerror (vecflt_type) (7.9.8.1.18)
current (4459)	pfsystems%pfsupplies%current (exp1D) (7.9.8.1.225)
value (4328)	pfsystems%pfsupplies%current%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	pfsystems%pfsupplies%current%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	pfsystems%pfsupplies%current%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4163)	pfsystems%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	pfsystems%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	pfsystems%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	pfsystems%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	pfsystems%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	pfsystems%codeparam%output_flag (integer) (7.9.8.1.3)
time (4163)	pfsystems%time (float) (7.9.8.1.2)

7.9.8.2.39 polardiag

datainfo (4385)	lineintegraldiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	lineintegraldiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	lineintegraldiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	lineintegraldiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	lineintegraldiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	lineintegraldiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	lineintegraldiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	lineintegraldiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	lineintegraldiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	lineintegraldiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	lineintegraldiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	lineintegraldiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	lineintegraldiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	lineintegraldiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	lineintegraldiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	lineintegraldiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	lineintegraldiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	lineintegraldiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	lineintegraldiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
expression (4385)	lineintegraldiag%expression (string) (7.9.8.1.4)
setup_line (4385)	lineintegraldiag%setup_line (setup_line) (7.9.8.1.424)
pivot_point (4527)	lineintegraldiag%setup_line%pivot_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%pivot_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%pivot_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%pivot_point%phi (vecflt_type) (7.9.8.1.18)
horchordang1 (4527)	lineintegraldiag%setup_line%horchordang1 (vecflt_type) (7.9.8.1.18)
verchordang1 (4527)	lineintegraldiag%setup_line%verchordang1 (vecflt_type) (7.9.8.1.18)

width (4527)	lineintegraldiag%setup_line%width (vecflt_type) (7.9.8.1.18)
second_point (4527)	lineintegraldiag%setup_line%second_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%second_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%second_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%second_point%phi (vecflt_type) (7.9.8.1.18)
horchordang2 (4527)	lineintegraldiag%setup_line%horchordang2 (vecflt_type) (7.9.8.1.18)
verchordang2 (4527)	lineintegraldiag%setup_line%verchordang2 (vecflt_type) (7.9.8.1.18)
third_point (4527)	lineintegraldiag%setup_line%third_point (rzphi1D) (7.9.8.1.393)
r (4496)	lineintegraldiag%setup_line%third_point%r (vecflt_type) (7.9.8.1.18)
z (4496)	lineintegraldiag%setup_line%third_point%z (vecflt_type) (7.9.8.1.18)
phi (4496)	lineintegraldiag%setup_line%third_point%phi (vecflt_type) (7.9.8.1.18)
nchordpoints (4527)	lineintegraldiag%setup_line%nchordpoints (integer) (7.9.8.1.3)
measure (4385)	lineintegraldiag%measure (exp1D) (7.9.8.1.225)
value (4328)	lineintegraldiag%measure%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	lineintegraldiag%measure%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	lineintegraldiag%measure%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4385)	lineintegraldiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	lineintegraldiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	lineintegraldiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	lineintegraldiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	lineintegraldiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	lineintegraldiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4385)	lineintegraldiag%time (float) (7.9.8.1.2)

7.9.8.2.40 power_conv

datainfo (4165)	power_conv%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	power_conv%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	power_conv%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	power_conv%datainfo%source (string) (7.9.8.1.4)
comment (4265)	power_conv%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	power_conv%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	power_conv%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	power_conv%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	power_conv%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	power_conv%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	power_conv%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	power_conv%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	power_conv%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	power_conv%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	power_conv%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	power_conv%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	power_conv%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	power_conv%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	power_conv%datainfo%putinfo%rights (string) (7.9.8.1.4)
cycle_type (4165)	power_conv%cycle_type (string) (7.9.8.1.4)
circuits (4165)	power_conv%circuits(:) (circuits) (7.9.8.1.102)
component (4205)	power_conv%circuits(:)%component(:) (power_conv_component) (7.9.8.1.364)
name (4467)	power_conv%circuits(:)%component(:)%name (string) (7.9.8.1.4)
temp_in (4467)	power_conv%circuits(:)%component(:)%temp_in (float) (7.9.8.1.2)
temp_out (4467)	power_conv%circuits(:)%component(:)%temp_out (float) (7.9.8.1.2)
press_in (4467)	power_conv%circuits(:)%component(:)%press_in (float) (7.9.8.1.2)
press_out (4467)	power_conv%circuits(:)%component(:)%press_out (float) (7.9.8.1.2)
power (4467)	power_conv%circuits(:)%component(:)%power (float) (7.9.8.1.2)
flow (4467)	power_conv%circuits(:)%component(:)%flow (float) (7.9.8.1.2)
power_net (4205)	power_conv%circuits(:)%power_net (float) (7.9.8.1.2)
power_int (4205)	power_conv%circuits(:)%power_int (float) (7.9.8.1.2)
efficiency (4205)	power_conv%circuits(:)%efficiency (float) (7.9.8.1.2)
power_recirc (4165)	power_conv%power_recirc (float) (7.9.8.1.2)
power_net (4165)	power_conv%power_net (float) (7.9.8.1.2)
power_int (4165)	power_conv%power_int (float) (7.9.8.1.2)

efficiency (4165)	power_conv%efficiency (float) (7.9.8.1.2)
codeparam (4165)	power_conv%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	power_conv%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	power_conv%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	power_conv%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	power_conv%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	power_conv%codeparam%output_flag (integer) (7.9.8.1.3)
time (4165)	power_conv%time (float) (7.9.8.1.2)

7.9.8.2.41 reflectomet

datainfo (4166)	reflectomet%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	reflectomet%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	reflectomet%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	reflectomet%datainfo%source (string) (7.9.8.1.4)
comment (4265)	reflectomet%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	reflectomet%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	reflectomet%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	reflectomet%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	reflectomet%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	reflectomet%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	reflectomet%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	reflectomet%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	reflectomet%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	reflectomet%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	reflectomet%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	reflectomet%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	reflectomet%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	reflectomet%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	reflectomet%datainfo%putinfo%rights (string) (7.9.8.1.4)
refl_receive (4166)	reflectomet%refl_receive(:) (refl_receive) (7.9.8.1.377)
name (4480)	reflectomet%refl_receive(:)%name (string) (7.9.8.1.4)
raw_signal (4480)	reflectomet%refl_receive(:)%raw_signal (t_series_real) (7.9.8.1.447)
time_wind (4550)	reflectomet%refl_receive(:)%raw_signal%time_wind (vecflt_type) (7.9.8.1.18)
values (4550)	reflectomet%refl_receive(:)%raw_signal%values (vecflt_type) (7.9.8.1.18)
io_signal (4480)	reflectomet%refl_receive(:)%io_signal (t_series_real) (7.9.8.1.447)
time_wind (4550)	reflectomet%refl_receive(:)%io_signal%time_wind (vecflt_type) (7.9.8.1.18)
values (4550)	reflectomet%refl_receive(:)%io_signal%values (vecflt_type) (7.9.8.1.18)
iq_receiver (4480)	reflectomet%refl_receive(:)%iq_receiver (t_series_cplx) (7.9.8.1.446)
time_wind (4549)	reflectomet%refl_receive(:)%iq_receiver%time_wind (vecflt_type) (7.9.8.1.18)
values_re (4549)	reflectomet%refl_receive(:)%iq_receiver%values_re (vecflt_type) (7.9.8.1.18)
values_im (4549)	reflectomet%refl_receive(:)%iq_receiver%values_im (vecflt_type) (7.9.8.1.18)
antenna_ind (4480)	reflectomet%refl_receive(:)%antenna_ind (integer) (7.9.8.1.3)
antennas (4166)	reflectomet%antennas(:) (reflectometry_antennas) (7.9.8.1.378)
name (4481)	reflectomet%antennas(:)%name (string) (7.9.8.1.4)
type (4481)	reflectomet%antennas(:)%type (identifier) (7.9.8.1.263)
id (4366)	reflectomet%antennas(:)%type%id (string) (7.9.8.1.4)
flag (4366)	reflectomet%antennas(:)%type%flag (integer) (7.9.8.1.3)
description (4366)	reflectomet%antennas(:)%type%description (string) (7.9.8.1.4)
origin (4481)	reflectomet%antennas(:)%origin (origin) (7.9.8.1.337)
refpos (4440)	reflectomet%antennas(:)%origin%refpos (rzphi0D) (7.9.8.1.392)
r (4495)	reflectomet%antennas(:)%origin%refpos%r (float) (7.9.8.1.2)
z (4495)	reflectomet%antennas(:)%origin%refpos%z (float) (7.9.8.1.2)
phi (4495)	reflectomet%antennas(:)%origin%refpos%phi (float) (7.9.8.1.2)
alpha (4440)	reflectomet%antennas(:)%origin%alpha (float) (7.9.8.1.2)
beta (4440)	reflectomet%antennas(:)%origin%beta (float) (7.9.8.1.2)
gamma (4440)	reflectomet%antennas(:)%origin%gamma (float) (7.9.8.1.2)
radfield (4481)	reflectomet%antennas(:)%radfield (reflectometry_radfield) (7.9.8.1.379)
type (4482)	reflectomet%antennas(:)%radfield%type (identifier) (7.9.8.1.263)
id (4366)	reflectomet%antennas(:)%radfield%type%id (string) (7.9.8.1.4)
flag (4366)	reflectomet%antennas(:)%radfield%type%flag (integer) (7.9.8.1.3)

description (4366)	reflectomet%antennas(:)%radfield%type%description (string) (7.9.8.1.4)
position (4482)	reflectomet%antennas(:)%radfield%position (vecflt_type) (7.9.8.1.18)
gaussian (4482)	reflectomet%antennas(:)%radfield%gaussian(:) (reflectometry_radfield_gaussian) (7.9.8.1.380)
aperture (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture (simp_apert) (7.9.8.1.428)
type (4531)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type (identifier) (7.9.8.1.263)
id (4366)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%id (string) (7.9.8.1.4)
flag (4366)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%flag (integer) (7.9.8.1.3)
description (4366)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%type%description (string) (7.9.8.1.4)
sizes (4531)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%sizes (vecflt_type) (7.9.8.1.18)
angle (4531)	reflectomet%antennas(:)%radfield%gaussian(:)%aperture%angle (float) (7.9.8.1.2)
waistsize (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%waistsize (vecflt_type) (7.9.8.1.18)
waistzpos (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%waistzpos (vecflt_type) (7.9.8.1.18)
tiltangle (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%tiltangle (vecflt_type) (7.9.8.1.18)
polar_angle (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%polar_angle (vecflt_type) (7.9.8.1.18)
frequency (4483)	reflectomet%antennas(:)%radfield%gaussian(:)%frequency (float) (7.9.8.1.2)
efield (4482)	reflectomet%antennas(:)%radfield%efield(:) (reflectometry_radifield_efield) (7.9.8.1.381)
grid2d (4484)	reflectomet%antennas(:)%radfield%efield(:)%grid2d (reggrid) (7.9.8.1.382)
dim1 (4485)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4485)	reflectomet%antennas(:)%radfield%efield(:)%grid2d%dim2 (vecflt_type) (7.9.8.1.18)
e1 (4484)	reflectomet%antennas(:)%radfield%efield(:)%e1 (matcplx_type) (7.9.8.1.14)
e2 (4484)	reflectomet%antennas(:)%radfield%efield(:)%e2 (matcplx_type) (7.9.8.1.14)
frequency (4484)	reflectomet%antennas(:)%radfield%efield(:)%frequency (float) (7.9.8.1.2)
geometry (4481)	reflectomet%antennas(:)%geometry (float) (7.9.8.1.2)
launchsignal (4481)	reflectomet%antennas(:)%launchsignal (launchsignal) (7.9.8.1.279)
time_launch (4382)	reflectomet%antennas(:)%launchsignal%time_launch (vecflt_type) (7.9.8.1.18)
freq (4382)	reflectomet%antennas(:)%launchsignal%freq (vecflt_type) (7.9.8.1.18)
amplitude (4382)	reflectomet%antennas(:)%launchsignal%amplitude (vecflt_type) (7.9.8.1.18)
phase (4382)	reflectomet%antennas(:)%launchsignal%phase (vecflt_type) (7.9.8.1.18)
codeparam (4166)	reflectomet%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	reflectomet%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	reflectomet%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	reflectomet%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	reflectomet%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	reflectomet%codeparam%output_flag (integer) (7.9.8.1.3)
time (4166)	reflectomet%time (float) (7.9.8.1.2)

7.9.8.2.42 rfadiag

datainfo (4167)	rfadiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	rfadiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	rfadiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	rfadiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	rfadiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	rfadiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	rfadiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	rfadiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	rfadiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	rfadiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	rfadiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	rfadiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	rfadiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	rfadiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	rfadiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	rfadiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	rfadiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	rfadiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	rfadiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4167)	rfadiag%setup (rfasetup) (7.9.8.1.384)
position (4487)	rfadiag%setup%position (rzphi1Dexp) (7.9.8.1.394)
r (4497)	rfadiag%setup%position%r (exp1D) (7.9.8.1.225)

value (4328)	rfadiag%setup%position%r%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	rfadiag%setup%position%r%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	rfadiag%setup%position%r%relerror (vecflt_type) (7.9.8.1.18)
z (4497)	rfadiag%setup%position%z (exp1D) (7.9.8.1.225)
value (4328)	rfadiag%setup%position%z%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	rfadiag%setup%position%z%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	rfadiag%setup%position%z%relerror (vecflt_type) (7.9.8.1.18)
phi (4497)	rfadiag%setup%position%phi (exp1D) (7.9.8.1.225)
value (4328)	rfadiag%setup%position%phi%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	rfadiag%setup%position%phi%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	rfadiag%setup%position%phi%relerror (vecflt_type) (7.9.8.1.18)
measure (4167)	rfadiag%measure (rfameasure) (7.9.8.1.383)
ti (4486)	rfadiag%measure%ti (exp1D) (7.9.8.1.225)
value (4328)	rfadiag%measure%ti%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	rfadiag%measure%ti%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	rfadiag%measure%ti%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4167)	rfadiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	rfadiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	rfadiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	rfadiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	rfadiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	rfadiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4167)	rfadiag%time (float) (7.9.8.1.2)

7.9.8.2.43 sawteeth

datainfo (4168)	sawteeth%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	sawteeth%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	sawteeth%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	sawteeth%datainfo%source (string) (7.9.8.1.4)
comment (4265)	sawteeth%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	sawteeth%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	sawteeth%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	sawteeth%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	sawteeth%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	sawteeth%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	sawteeth%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	sawteeth%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	sawteeth%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	sawteeth%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	sawteeth%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	sawteeth%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	sawteeth%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	sawteeth%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	sawteeth%datainfo%putinfo%rights (string) (7.9.8.1.4)
crash_trig (4168)	sawteeth%crash_trig (integer) (7.9.8.1.3)
composition (4168)	sawteeth%composition (composition) (7.9.8.1.123)
amn (4226)	sawteeth%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	sawteeth%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	sawteeth%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	sawteeth%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	sawteeth%composition%label (vecstring_type) (7.9.8.1.20)
rho_tor_norm (4168)	sawteeth%rho_tor_norm (vecflt_type) (7.9.8.1.18)
rho_tor (4168)	sawteeth%rho_tor (vecflt_type) (7.9.8.1.18)
profiles1d (4168)	sawteeth%profiles1d (sawteeth_profiles1d) (7.9.8.1.400)
psi (4503)	sawteeth%profiles1d%psi (vecflt_type) (7.9.8.1.18)
psistar (4503)	sawteeth%profiles1d%psistar (vecflt_type) (7.9.8.1.18)
q (4503)	sawteeth%profiles1d%q (vecflt_type) (7.9.8.1.18)
diags (4168)	sawteeth%diags (sawteeth_diags) (7.9.8.1.399)
shear1 (4502)	sawteeth%diags%shear1 (float) (7.9.8.1.2)
rhotorn_q1 (4502)	sawteeth%diags%rhotorn_q1 (float) (7.9.8.1.2)

rhotorn_inv (4502)	sawteeth%diags%rhotorn_inv (float) (7.9.8.1.2)
rhotorn_mix (4502)	sawteeth%diags%rhotorn_mix (float) (7.9.8.1.2)
pr_crash_trig (4502)	sawteeth%diags%pr_crash_trig (integer) (7.9.8.1.3)
pr_crash_time (4502)	sawteeth%diags%pr_crash_time (float) (7.9.8.1.2)
pr_st_period (4502)	sawteeth%diags%pr_st_period (float) (7.9.8.1.2)
codeparam (4168)	sawteeth%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	sawteeth%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	sawteeth%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	sawteeth%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	sawteeth%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	sawteeth%codeparam%output_flag (integer) (7.9.8.1.3)
time (4168)	sawteeth%time (float) (7.9.8.1.2)

7.9.8.2.44 scenario

datainfo (4169)	scenario%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	scenario%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	scenario%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	scenario%datainfo%source (string) (7.9.8.1.4)
comment (4265)	scenario%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	scenario%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	scenario%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	scenario%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	scenario%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	scenario%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	scenario%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	scenario%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	scenario%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	scenario%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	scenario%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	scenario%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	scenario%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	scenario%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	scenario%datainfo%putinfo%rights (string) (7.9.8.1.4)
centre (4169)	scenario%centre (scenario_centre) (7.9.8.1.401)
te0 (4504)	scenario%centre%te0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%te0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%te0%source (string) (7.9.8.1.4)
ti0 (4504)	scenario%centre%ti0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%ti0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%ti0%source (string) (7.9.8.1.4)
ne0 (4504)	scenario%centre%ne0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%ne0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%ne0%source (string) (7.9.8.1.4)
ni0 (4504)	scenario%centre%ni0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%ni0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%ni0%source (string) (7.9.8.1.4)
shift0 (4504)	scenario%centre%shift0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%shift0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%shift0%source (string) (7.9.8.1.4)
psi0 (4504)	scenario%centre%psi0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%psi0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%psi0%source (string) (7.9.8.1.4)
phi0 (4504)	scenario%centre%phi0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%phi0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%phi0%source (string) (7.9.8.1.4)
q0 (4504)	scenario%centre%q0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%q0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%q0%source (string) (7.9.8.1.4)
Rmag (4504)	scenario%centre%Rmag (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%Rmag%value (float) (7.9.8.1.2)

source (4521)	scenario%centre%Rmag%source (string) (7.9.8.1.4)
Zmag (4504)	scenario%centre%Zmag (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%Zmag%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%Zmag%source (string) (7.9.8.1.4)
vtor_0 (4504)	scenario%centre%vtor_0 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%centre%vtor_0%value (float) (7.9.8.1.2)
source (4521)	scenario%centre%vtor_0%source (string) (7.9.8.1.4)
composition (4169)	scenario%composition (scenario_composition) (7.9.8.1.402)
amn (4505)	scenario%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4505)	scenario%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4505)	scenario%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4505)	scenario%composition%imp_flag (vecint_type) (7.9.8.1.19)
rot_imp_flag (4505)	scenario%composition%rot_imp_flag (vecint_type) (7.9.8.1.19)
pellet_amn (4505)	scenario%composition%pellet_amn (vecflt_type) (7.9.8.1.18)
pellet_zn (4505)	scenario%composition%pellet_zn (vecflt_type) (7.9.8.1.18)
nbi_amn (4505)	scenario%composition%nbi_amn (vecflt_type) (7.9.8.1.18)
nbi_zn (4505)	scenario%composition%nbi_zn (vecflt_type) (7.9.8.1.18)
configs (4169)	scenario%configs (scenario_configuration) (7.9.8.1.403)
config (4506)	scenario%configs%config (scenario_int) (7.9.8.1.410)
value (4513)	scenario%configs%config%value (integer) (7.9.8.1.3)
source (4513)	scenario%configs%config%source (string) (7.9.8.1.4)
lmode_sc (4506)	scenario%configs%lmode_sc (string) (7.9.8.1.4)
hmode_sc (4506)	scenario%configs%hmode_sc (string) (7.9.8.1.4)
core_sc (4506)	scenario%configs%core_sc (string) (7.9.8.1.4)
pedestal_sc (4506)	scenario%configs%pedestal_sc (string) (7.9.8.1.4)
helium_sc (4506)	scenario%configs%helium_sc (string) (7.9.8.1.4)
impurity_sc (4506)	scenario%configs%impurity_sc (string) (7.9.8.1.4)
l2h_sc (4506)	scenario%configs%l2h_sc (string) (7.9.8.1.4)
tor_rot_sc (4506)	scenario%configs%tor_rot_sc (string) (7.9.8.1.4)
wall_mat (4506)	scenario%configs%wall_mat (string) (7.9.8.1.4)
evap_mat (4506)	scenario%configs%evap_mat (string) (7.9.8.1.4)
lim_mat (4506)	scenario%configs%lim_mat (string) (7.9.8.1.4)
div_mat (4506)	scenario%configs%div_mat (string) (7.9.8.1.4)
coordinate (4506)	scenario%configs%coordinate (string) (7.9.8.1.4)
ecrh_freq (4506)	scenario%configs%ecrh_freq (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%ecrh_freq%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%ecrh_freq%source (string) (7.9.8.1.4)
ecrh_loc (4506)	scenario%configs%ecrh_loc (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%ecrh_loc%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%ecrh_loc%source (string) (7.9.8.1.4)
ecrh_mode (4506)	scenario%configs%ecrh_mode (scenario_int) (7.9.8.1.410)
value (4513)	scenario%configs%ecrh_mode%value (integer) (7.9.8.1.3)
source (4513)	scenario%configs%ecrh_mode%source (string) (7.9.8.1.4)
ecrh_tor_ang (4506)	scenario%configs%ecrh_tor_ang (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%ecrh_tor_ang%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%ecrh_tor_ang%source (string) (7.9.8.1.4)
ecrh_pol_ang (4506)	scenario%configs%ecrh_pol_ang (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%ecrh_pol_ang%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%ecrh_pol_ang%source (string) (7.9.8.1.4)
ecrh_harm (4506)	scenario%configs%ecrh_harm (scenario_int) (7.9.8.1.410)
value (4513)	scenario%configs%ecrh_harm%value (integer) (7.9.8.1.3)
source (4513)	scenario%configs%ecrh_harm%source (string) (7.9.8.1.4)
enbi (4506)	scenario%configs%enbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%enbi%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%enbi%source (string) (7.9.8.1.4)
r_nbi (4506)	scenario%configs%r_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%r_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%r_nbi%source (string) (7.9.8.1.4)
grad_b_drift (4506)	scenario%configs%grad_b_drift (scenario_int) (7.9.8.1.410)
value (4513)	scenario%configs%grad_b_drift%value (integer) (7.9.8.1.3)
source (4513)	scenario%configs%grad_b_drift%source (string) (7.9.8.1.4)

icrh_freq (4506)	scenario%configs%icrh_freq (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%icrh_freq%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%icrh_freq%source (string) (7.9.8.1.4)
icrh_scheme (4506)	scenario%configs%icrh_scheme (string) (7.9.8.1.4)
icrh_phase (4506)	scenario%configs%icrh_phase (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%icrh_phase%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%icrh_phase%source (string) (7.9.8.1.4)
LH_freq (4506)	scenario%configs%LH_freq (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%LH_freq%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%LH_freq%source (string) (7.9.8.1.4)
LH_npar (4506)	scenario%configs%LH_npar (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%LH_npar%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%LH_npar%source (string) (7.9.8.1.4)
pellet_ang (4506)	scenario%configs%pellet_ang (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%pellet_ang%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%pellet_ang%source (string) (7.9.8.1.4)
pellet_v (4506)	scenario%configs%pellet_v (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%pellet_v%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%pellet_v%source (string) (7.9.8.1.4)
pellet_nba (4506)	scenario%configs%pellet_nba (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%configs%pellet_nba%value (float) (7.9.8.1.2)
source (4521)	scenario%configs%pellet_nba%source (string) (7.9.8.1.4)
confinement (4169)	scenario%confinement (scenario_confinement) (7.9.8.1.404)
tau_e (4507)	scenario%confinement%tau_e (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_e%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_e%source (string) (7.9.8.1.4)
tau_l_sc (4507)	scenario%confinement%tau_l_sc (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_l_sc%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_l_sc%source (string) (7.9.8.1.4)
tau_h_sc (4507)	scenario%confinement%tau_h_sc (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_h_sc%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_h_sc%source (string) (7.9.8.1.4)
tau_he (4507)	scenario%confinement%tau_he (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_he%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_he%source (string) (7.9.8.1.4)
tau_e_ee (4507)	scenario%confinement%tau_e_ee (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_e_ee%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_e_ee%source (string) (7.9.8.1.4)
tau_e_ii (4507)	scenario%confinement%tau_e_ii (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_e_ii%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_e_ii%source (string) (7.9.8.1.4)
tau_e_ei (4507)	scenario%confinement%tau_e_ei (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_e_ei%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_e_ei%source (string) (7.9.8.1.4)
tau_cur_diff (4507)	scenario%confinement%tau_cur_diff (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_cur_diff%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_cur_diff%source (string) (7.9.8.1.4)
tau_i_rol (4507)	scenario%confinement%tau_i_rol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%confinement%tau_i_rol%value (float) (7.9.8.1.2)
source (4521)	scenario%confinement%tau_i_rol%source (string) (7.9.8.1.4)
currents (4169)	scenario%currents (scenario_currents) (7.9.8.1.405)
RR (4508)	scenario%currents%RR (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%RR%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%RR%source (string) (7.9.8.1.4)
i_align (4508)	scenario%currents%i_align (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_align%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_align%source (string) (7.9.8.1.4)
i_boot (4508)	scenario%currents%i_boot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_boot%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_boot%source (string) (7.9.8.1.4)
i_cd_tot (4508)	scenario%currents%i_cd_tot (scenario_ref) (7.9.8.1.418)

value (4521)	scenario%currents%i_cd_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_cd_tot%source (string) (7.9.8.1.4)
i_eccd (4508)	scenario%currents%i_eccd (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_eccd%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_eccd%source (string) (7.9.8.1.4)
i_fast_ion (4508)	scenario%currents%i_fast_ion (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_fast_ion%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_fast_ion%source (string) (7.9.8.1.4)
i_fwcd (4508)	scenario%currents%i_fwcd (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_fwcd%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_fwcd%source (string) (7.9.8.1.4)
i_lhcd (4508)	scenario%currents%i_lhcd (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_lhcd%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_lhcd%source (string) (7.9.8.1.4)
i_nbicd (4508)	scenario%currents%i_nbicd (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_nbicd%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_nbicd%source (string) (7.9.8.1.4)
i_ni_tot (4508)	scenario%currents%i_ni_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_ni_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_ni_tot%source (string) (7.9.8.1.4)
i_ohm (4508)	scenario%currents%i_ohm (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_ohm%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_ohm%source (string) (7.9.8.1.4)
i_par (4508)	scenario%currents%i_par (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_par%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_par%source (string) (7.9.8.1.4)
i_runaway (4508)	scenario%currents%i_runaway (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%i_runaway%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%i_runaway%source (string) (7.9.8.1.4)
v_loop (4508)	scenario%currents%v_loop (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%v_loop%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%v_loop%source (string) (7.9.8.1.4)
v_meas (4508)	scenario%currents%v_meas (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%currents%v_meas%value (float) (7.9.8.1.2)
source (4521)	scenario%currents%v_meas%source (string) (7.9.8.1.4)
edge (4169)	scenario%edge (scenario_edge) (7.9.8.1.406)
te_edge (4509)	scenario%edge%te_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%te_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%te_edge%source (string) (7.9.8.1.4)
ti_edge (4509)	scenario%edge%ti_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%ti_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%ti_edge%source (string) (7.9.8.1.4)
ne_edge (4509)	scenario%edge%ne_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%ne_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%ne_edge%source (string) (7.9.8.1.4)
ni_edge (4509)	scenario%edge%ni_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%ni_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%ni_edge%source (string) (7.9.8.1.4)
psi_edge (4509)	scenario%edge%psi_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%psi_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%psi_edge%source (string) (7.9.8.1.4)
phi_edge (4509)	scenario%edge%phi_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%phi_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%phi_edge%source (string) (7.9.8.1.4)
rho_edge (4509)	scenario%edge%rho_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%rho_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%rho_edge%source (string) (7.9.8.1.4)
drho_edge_dt (4509)	scenario%edge%drho_edge_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%drho_edge_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%drho_edge_dt%source (string) (7.9.8.1.4)
q_edge (4509)	scenario%edge%q_edge (scenario_ref) (7.9.8.1.418)

value (4521)	scenario%edge%q_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%q_edge%source (string) (7.9.8.1.4)
neutral_flux (4509)	scenario%edge%neutral_flux (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%neutral_flux%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%neutral_flux%source (string) (7.9.8.1.4)
phi_plasma (4509)	scenario%edge%phi_plasma (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%phi_plasma%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%phi_plasma%source (string) (7.9.8.1.4)
vtor_edge (4509)	scenario%edge%vtor_edge (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%edge%vtor_edge%value (float) (7.9.8.1.2)
source (4521)	scenario%edge%vtor_edge%source (string) (7.9.8.1.4)
energy (4169)	scenario%energy (scenario_energy) (7.9.8.1.407)
w_tot (4510)	scenario%energy%w_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%w_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%w_tot%source (string) (7.9.8.1.4)
w_b_pol (4510)	scenario%energy%w_b_pol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%w_b_pol%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%w_b_pol%source (string) (7.9.8.1.4)
w_dia (4510)	scenario%energy%w_dia (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%w_dia%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%w_dia%source (string) (7.9.8.1.4)
dwdia_dt (4510)	scenario%energy%dwdia_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%dwdia_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%dwdia_dt%source (string) (7.9.8.1.4)
w_b_tor_pla (4510)	scenario%energy%w_b_tor_pla (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%w_b_tor_pla%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%w_b_tor_pla%source (string) (7.9.8.1.4)
w_th (4510)	scenario%energy%w_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%w_th%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%w_th%source (string) (7.9.8.1.4)
dwtot_dt (4510)	scenario%energy%dwtot_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%dwtot_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%dwtot_dt%source (string) (7.9.8.1.4)
dwbpol_dt (4510)	scenario%energy%dwbpol_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%dwbpol_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%dwbpol_dt%source (string) (7.9.8.1.4)
dwbtorpla_dt (4510)	scenario%energy%dwbtorpla_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%dwbtorpla_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%dwbtorpla_dt%source (string) (7.9.8.1.4)
dwth_dt (4510)	scenario%energy%dwth_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%dwth_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%dwth_dt%source (string) (7.9.8.1.4)
esup_icrhtot (4510)	scenario%energy%esup_icrhtot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_icrhtot%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_icrhtot%source (string) (7.9.8.1.4)
esup_icrhper (4510)	scenario%energy%esup_icrhper (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_icrhper%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_icrhper%source (string) (7.9.8.1.4)
esup_nbitot (4510)	scenario%energy%esup_nbitot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_nbitot%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_nbitot%source (string) (7.9.8.1.4)
esup_nbiperp (4510)	scenario%energy%esup_nbiperp (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_nbiperp%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_nbiperp%source (string) (7.9.8.1.4)
esup_lhcd (4510)	scenario%energy%esup_lhcd (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_lhcd%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_lhcd%source (string) (7.9.8.1.4)
esup_alpha (4510)	scenario%energy%esup_alpha (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%energy%esup_alpha%value (float) (7.9.8.1.2)
source (4521)	scenario%energy%esup_alpha%source (string) (7.9.8.1.4)
eqgeometry (4169)	scenario%eqgeometry (eqgeometry) (7.9.8.1.218)

source (4321)	scenario%eqgeometry%source (string) (7.9.8.1.4)
boundarytype (4321)	scenario%eqgeometry%boundarytype (integer) (7.9.8.1.3)
boundary (4321)	scenario%eqgeometry%boundary(:) (rz1Dexp) (7.9.8.1.389)
r (4492)	scenario%eqgeometry%boundary(:)%r (vecflt_type) (7.9.8.1.18)
z (4492)	scenario%eqgeometry%boundary(:)%z (vecflt_type) (7.9.8.1.18)
geom_axis (4321)	scenario%eqgeometry%geom_axis (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%geom_axis%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%geom_axis%z (float) (7.9.8.1.2)
a_minor (4321)	scenario%eqgeometry%a_minor (float) (7.9.8.1.2)
elongation (4321)	scenario%eqgeometry%elongation (float) (7.9.8.1.2)
elong_upper (4321)	scenario%eqgeometry%elong_upper (float) (7.9.8.1.2)
elong_lower (4321)	scenario%eqgeometry%elong_lower (float) (7.9.8.1.2)
tria_upper (4321)	scenario%eqgeometry%tria_upper (float) (7.9.8.1.2)
tria_lower (4321)	scenario%eqgeometry%tria_lower (float) (7.9.8.1.2)
xpts (4321)	scenario%eqgeometry%xpts(:) (rz1Dexp) (7.9.8.1.389)
r (4492)	scenario%eqgeometry%xpts(:)%r (vecflt_type) (7.9.8.1.18)
z (4492)	scenario%eqgeometry%xpts(:)%z (vecflt_type) (7.9.8.1.18)
left_low_st (4321)	scenario%eqgeometry%left_low_st (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%left_low_st%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%left_low_st%z (float) (7.9.8.1.2)
right_low_st (4321)	scenario%eqgeometry%right_low_st (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%right_low_st%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%right_low_st%z (float) (7.9.8.1.2)
left_up_st (4321)	scenario%eqgeometry%left_up_st (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%left_up_st%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%left_up_st%z (float) (7.9.8.1.2)
right_up_st (4321)	scenario%eqgeometry%right_up_st (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%right_up_st%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%right_up_st%z (float) (7.9.8.1.2)
active_limit (4321)	scenario%eqgeometry%active_limit (rz0D) (7.9.8.1.386)
r (4489)	scenario%eqgeometry%active_limit%r (float) (7.9.8.1.2)
z (4489)	scenario%eqgeometry%active_limit%z (float) (7.9.8.1.2)
ang_lcms_upo (4321)	scenario%eqgeometry%ang_lcms_upo (float) (7.9.8.1.2)
ang_lcms_upi (4321)	scenario%eqgeometry%ang_lcms_upi (float) (7.9.8.1.2)
ang_lcms_lwo (4321)	scenario%eqgeometry%ang_lcms_lwo (float) (7.9.8.1.2)
ang_lcms_lwi (4321)	scenario%eqgeometry%ang_lcms_lwi (float) (7.9.8.1.2)
global_param (4169)	scenario%global_param (scenario_global) (7.9.8.1.408)
ip (4511)	scenario%global_param%ip (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%ip%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%ip%source (string) (7.9.8.1.4)
dip_dt (4511)	scenario%global_param%dip_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%dip_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%dip_dt%source (string) (7.9.8.1.4)
beta_pol (4511)	scenario%global_param%beta_pol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_pol%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_pol%source (string) (7.9.8.1.4)
beta_tor (4511)	scenario%global_param%beta_tor (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_tor%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_tor%source (string) (7.9.8.1.4)
beta_normal (4511)	scenario%global_param%beta_normal (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_normal%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_normal%source (string) (7.9.8.1.4)
li (4511)	scenario%global_param%li (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%li%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%li%source (string) (7.9.8.1.4)
volume (4511)	scenario%global_param%volume (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%volume%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%volume%source (string) (7.9.8.1.4)
area_pol (4511)	scenario%global_param%area_pol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%area_pol%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%area_pol%source (string) (7.9.8.1.4)

area_ext (4511)	scenario%global_param%area_ext (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%area_ext%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%area_ext%source (string) (7.9.8.1.4)
len_sepa (4511)	scenario%global_param%len_sepa (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%len_sepa%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%len_sepa%source (string) (7.9.8.1.4)
beta_pol_th (4511)	scenario%global_param%beta_pol_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_pol_th%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_pol_th%source (string) (7.9.8.1.4)
beta_tor_th (4511)	scenario%global_param%beta_tor_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_tor_th%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_tor_th%source (string) (7.9.8.1.4)
beta_n_th (4511)	scenario%global_param%beta_n_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%beta_n_th%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%beta_n_th%source (string) (7.9.8.1.4)
disruption (4511)	scenario%global_param%disruption (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%disruption%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%disruption%source (string) (7.9.8.1.4)
mode_h (4511)	scenario%global_param%mode_h (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%mode_h%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%mode_h%source (string) (7.9.8.1.4)
s_alpha (4511)	scenario%global_param%s_alpha (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%global_param%s_alpha%value (float) (7.9.8.1.2)
source (4521)	scenario%global_param%s_alpha%source (string) (7.9.8.1.4)
heat_power (4169)	scenario%heat_power (scenario_heat_power) (7.9.8.1.409)
plh (4512)	scenario%heat_power%plh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%plh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%plh%source (string) (7.9.8.1.4)
pohmic (4512)	scenario%heat_power%pohmic (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pohmic%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pohmic%source (string) (7.9.8.1.4)
picrh (4512)	scenario%heat_power%picrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%picrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%picrh%source (string) (7.9.8.1.4)
pecrh (4512)	scenario%heat_power%pecrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pecrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pecrh%source (string) (7.9.8.1.4)
pnbi (4512)	scenario%heat_power%pnbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pnbi%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pnbi%source (string) (7.9.8.1.4)
pnbi_co_cur (4512)	scenario%heat_power%pnbi_co_cur (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pnbi_co_cur%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pnbi_co_cur%source (string) (7.9.8.1.4)
pnbi_counter (4512)	scenario%heat_power%pnbi_counter (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pnbi_counter%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pnbi_counter%source (string) (7.9.8.1.4)
plh_th (4512)	scenario%heat_power%plh_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%plh_th%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%plh_th%source (string) (7.9.8.1.4)
picrh_th (4512)	scenario%heat_power%picrh_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%picrh_th%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%picrh_th%source (string) (7.9.8.1.4)
pecrh_th (4512)	scenario%heat_power%pecrh_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pecrh_th%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pecrh_th%source (string) (7.9.8.1.4)
pnbi_th (4512)	scenario%heat_power%pnbi_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pnbi_th%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pnbi_th%source (string) (7.9.8.1.4)
ploss_icrh (4512)	scenario%heat_power%ploss_icrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%ploss_icrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%ploss_icrh%source (string) (7.9.8.1.4)

ploss_nbi (4512)	scenario%heat_power%ploss_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%ploss_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%ploss_nbi%source (string) (7.9.8.1.4)
pbrem (4512)	scenario%heat_power%pbrem (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pbrem%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pbrem%source (string) (7.9.8.1.4)
pcyclo (4512)	scenario%heat_power%pcyclo (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pcyclo%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pcyclo%source (string) (7.9.8.1.4)
prad (4512)	scenario%heat_power%prad (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%prad%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%prad%source (string) (7.9.8.1.4)
pdd_fus (4512)	scenario%heat_power%pdd_fus (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pdd_fus%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pdd_fus%source (string) (7.9.8.1.4)
pei (4512)	scenario%heat_power%pei (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pei%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pei%source (string) (7.9.8.1.4)
pel_tot (4512)	scenario%heat_power%pel_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pel_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pel_tot%source (string) (7.9.8.1.4)
pel_fus (4512)	scenario%heat_power%pel_fus (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pel_fus%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pel_fus%source (string) (7.9.8.1.4)
pel_icrh (4512)	scenario%heat_power%pel_icrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pel_icrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pel_icrh%source (string) (7.9.8.1.4)
pel_nbi (4512)	scenario%heat_power%pel_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pel_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pel_nbi%source (string) (7.9.8.1.4)
pfus_dt (4512)	scenario%heat_power%pfus_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pfus_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pfus_dt%source (string) (7.9.8.1.4)
ploss_fus (4512)	scenario%heat_power%ploss_fus (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%ploss_fus%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%ploss_fus%source (string) (7.9.8.1.4)
pfus_nbi (4512)	scenario%heat_power%pfus_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pfus_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pfus_nbi%source (string) (7.9.8.1.4)
pfus_th (4512)	scenario%heat_power%pfus_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pfus_th%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pfus_th%source (string) (7.9.8.1.4)
padd_tot (4512)	scenario%heat_power%padd_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%padd_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%padd_tot%source (string) (7.9.8.1.4)
pion_tot (4512)	scenario%heat_power%pion_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pion_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pion_tot%source (string) (7.9.8.1.4)
pion_fus (4512)	scenario%heat_power%pion_fus (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pion_fus%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pion_fus%source (string) (7.9.8.1.4)
pion_icrh (4512)	scenario%heat_power%pion_icrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pion_icrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pion_icrh%source (string) (7.9.8.1.4)
pion_nbi (4512)	scenario%heat_power%pion_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pion_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pion_nbi%source (string) (7.9.8.1.4)
pioniz (4512)	scenario%heat_power%pioniz (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%pioniz%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%pioniz%source (string) (7.9.8.1.4)
ploss (4512)	scenario%heat_power%ploss (scenario_ref) (7.9.8.1.418)

value (4521)	scenario%heat_power%ploss%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%ploss%source (string) (7.9.8.1.4)
p_wth (4512)	scenario%heat_power%p_wth (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%p_wth%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%p_wth%source (string) (7.9.8.1.4)
p_w (4512)	scenario%heat_power%p_w (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%p_w%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%p_w%source (string) (7.9.8.1.4)
p_l2h_thr (4512)	scenario%heat_power%p_l2h_thr (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%p_l2h_thr%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%p_l2h_thr%source (string) (7.9.8.1.4)
p_l2h_sc (4512)	scenario%heat_power%p_l2h_sc (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%p_l2h_sc%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%p_l2h_sc%source (string) (7.9.8.1.4)
p_nbi_icrh (4512)	scenario%heat_power%p_nbi_icrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%heat_power%p_nbi_icrh%value (float) (7.9.8.1.2)
source (4521)	scenario%heat_power%p_nbi_icrh%source (string) (7.9.8.1.4)
itb (4169)	scenario%itb (scenario_itb) (7.9.8.1.411)
q_min (4514)	scenario%itb%q_min (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%q_min%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%q_min%source (string) (7.9.8.1.4)
te_itb (4514)	scenario%itb%te_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%te_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%te_itb%source (string) (7.9.8.1.4)
ti_itb (4514)	scenario%itb%ti_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%ti_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%ti_itb%source (string) (7.9.8.1.4)
ne_itb (4514)	scenario%itb%ne_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%ne_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%ne_itb%source (string) (7.9.8.1.4)
ni_itb (4514)	scenario%itb%ni_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%ni_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%ni_itb%source (string) (7.9.8.1.4)
psi_itb (4514)	scenario%itb%psi_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%psi_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%psi_itb%source (string) (7.9.8.1.4)
phi_itb (4514)	scenario%itb%phi_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%phi_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%phi_itb%source (string) (7.9.8.1.4)
rho_itb (4514)	scenario%itb%rho_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%rho_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%rho_itb%source (string) (7.9.8.1.4)
h_itb (4514)	scenario%itb%h_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%h_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%h_itb%source (string) (7.9.8.1.4)
width_itb (4514)	scenario%itb%width_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%width_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%width_itb%source (string) (7.9.8.1.4)
vtor_itb (4514)	scenario%itb%vtor_itb (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%itb%vtor_itb%value (float) (7.9.8.1.2)
source (4521)	scenario%itb%vtor_itb%source (string) (7.9.8.1.4)
itb_type (4514)	scenario%itb%itb_type (scenario_int) (7.9.8.1.410)
value (4513)	scenario%itb%itb_type%value (integer) (7.9.8.1.3)
source (4513)	scenario%itb%itb_type%source (string) (7.9.8.1.4)
lim_div_wall (4169)	scenario%lim_div_wall (scenario_lim_div_wall) (7.9.8.1.412)
te_lim_div (4515)	scenario%lim_div_wall%te_lim_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%te_lim_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%te_lim_div%source (string) (7.9.8.1.4)
ti_lim_div (4515)	scenario%lim_div_wall%ti_lim_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%ti_lim_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%ti_lim_div%source (string) (7.9.8.1.4)

ne_lim_div (4515)	scenario%lim_div_wall%ne_lim_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%ne_lim_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%ne_lim_div%source (string) (7.9.8.1.4)
ni_lim_div (4515)	scenario%lim_div_wall%ni_lim_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%ni_lim_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%ni_lim_div%source (string) (7.9.8.1.4)
q_peak_div (4515)	scenario%lim_div_wall%q_peak_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%q_peak_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%q_peak_div%source (string) (7.9.8.1.4)
q_peak_wall (4515)	scenario%lim_div_wall%q_peak_wall (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%q_peak_wall%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%q_peak_wall%source (string) (7.9.8.1.4)
surf_temp (4515)	scenario%lim_div_wall%surf_temp (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%surf_temp%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%surf_temp%source (string) (7.9.8.1.4)
p_lim_div (4515)	scenario%lim_div_wall%p_lim_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_lim_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_lim_div%source (string) (7.9.8.1.4)
p_rad_div (4515)	scenario%lim_div_wall%p_rad_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_rad_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_rad_div%source (string) (7.9.8.1.4)
p_neut_div (4515)	scenario%lim_div_wall%p_neut_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_neut_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_neut_div%source (string) (7.9.8.1.4)
p_wall (4515)	scenario%lim_div_wall%p_wall (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_wall%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_wall%source (string) (7.9.8.1.4)
wall_temp (4515)	scenario%lim_div_wall%wall_temp (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%wall_temp%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%wall_temp%source (string) (7.9.8.1.4)
wall_state (4515)	scenario%lim_div_wall%wall_state (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%wall_state%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%wall_state%source (string) (7.9.8.1.4)
detach_state (4515)	scenario%lim_div_wall%detach_state (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%detach_state%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%detach_state%source (string) (7.9.8.1.4)
pump_flux (4515)	scenario%lim_div_wall%pump_flux (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%pump_flux%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%pump_flux%source (string) (7.9.8.1.4)
p_rad_fw (4515)	scenario%lim_div_wall%p_rad_fw (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_rad_fw%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_rad_fw%source (string) (7.9.8.1.4)
p_cond_fw (4515)	scenario%lim_div_wall%p_cond_fw (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_cond_fw%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_cond_fw%source (string) (7.9.8.1.4)
div_wetted (4515)	scenario%lim_div_wall%div_wetted (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%div_wetted%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%div_wetted%source (string) (7.9.8.1.4)
gas_puff (4515)	scenario%lim_div_wall%gas_puff (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%gas_puff%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%gas_puff%source (string) (7.9.8.1.4)
ar_concentr (4515)	scenario%lim_div_wall%ar_concentr (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%ar_concentr%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%ar_concentr%source (string) (7.9.8.1.4)
part_exhaust (4515)	scenario%lim_div_wall%part_exhaust (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%part_exhaust%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%part_exhaust%source (string) (7.9.8.1.4)
f_inner (4515)	scenario%lim_div_wall%f_inner (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%f_inner%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%f_inner%source (string) (7.9.8.1.4)
f_outer (4515)	scenario%lim_div_wall%f_outer (scenario_ref) (7.9.8.1.418)

value (4521)	scenario%lim_div_wall%f_outer%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%f_outer%source (string) (7.9.8.1.4)
f_pfr (4515)	scenario%lim_div_wall%f_pfr (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%f_pfr%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%f_pfr%source (string) (7.9.8.1.4)
f_rad_fw (4515)	scenario%lim_div_wall%f_rad_fw (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%f_rad_fw%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%f_rad_fw%source (string) (7.9.8.1.4)
q_div (4515)	scenario%lim_div_wall%q_div (vecflt_type) (7.9.8.1.18)
p_cond_div (4515)	scenario%lim_div_wall%p_cond_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_cond_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_cond_div%source (string) (7.9.8.1.4)
pol_ext (4515)	scenario%lim_div_wall%pol_ext (float) (7.9.8.1.2)
flux_exp (4515)	scenario%lim_div_wall%flux_exp (float) (7.9.8.1.2)
tilt_angle (4515)	scenario%lim_div_wall%tilt_angle (float) (7.9.8.1.2)
n_div (4515)	scenario%lim_div_wall%n_div (float) (7.9.8.1.2)
div_dz (4515)	scenario%lim_div_wall%div_dz (float) (7.9.8.1.2)
div_dro (4515)	scenario%lim_div_wall%div_dro (float) (7.9.8.1.2)
div_dri (4515)	scenario%lim_div_wall%div_dri (float) (7.9.8.1.2)
p_nh_div (4515)	scenario%lim_div_wall%p_nh_div (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%lim_div_wall%p_nh_div%value (float) (7.9.8.1.2)
source (4521)	scenario%lim_div_wall%p_nh_div%source (string) (7.9.8.1.4)
line_ave (4169)	scenario%line_ave (scenario_line_ave) (7.9.8.1.413)
ne_line (4516)	scenario%line_ave%ne_line (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%line_ave%ne_line%value (float) (7.9.8.1.2)
source (4521)	scenario%line_ave%ne_line%source (string) (7.9.8.1.4)
zeff_line (4516)	scenario%line_ave%zeff_line (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%line_ave%zeff_line%value (float) (7.9.8.1.2)
source (4521)	scenario%line_ave%zeff_line%source (string) (7.9.8.1.4)
ne_zeff_line (4516)	scenario%line_ave%ne_zeff_line (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%line_ave%ne_zeff_line%value (float) (7.9.8.1.2)
source (4521)	scenario%line_ave%ne_zeff_line%source (string) (7.9.8.1.4)
dne_line_dt (4516)	scenario%line_ave%dne_line_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%line_ave%dne_line_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%line_ave%dne_line_dt%source (string) (7.9.8.1.4)
neutron (4169)	scenario%neutron (scenario_neutron) (7.9.8.1.414)
ndd_tot (4517)	scenario%neutron%ndd_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndd_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndd_tot%source (string) (7.9.8.1.4)
ndd_th (4517)	scenario%neutron%ndd_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndd_th%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndd_th%source (string) (7.9.8.1.4)
ndd_nbi_th (4517)	scenario%neutron%ndd_nbi_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndd_nbi_th%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndd_nbi_th%source (string) (7.9.8.1.4)
ndd_nbi_nbi (4517)	scenario%neutron%ndd_nbi_nbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndd_nbi_nbi%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndd_nbi_nbi%source (string) (7.9.8.1.4)
ndt_tot (4517)	scenario%neutron%ndt_tot (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndt_tot%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndt_tot%source (string) (7.9.8.1.4)
ndt_th (4517)	scenario%neutron%ndt_th (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%neutron%ndt_th%value (float) (7.9.8.1.2)
source (4521)	scenario%neutron%ndt_th%source (string) (7.9.8.1.4)
ninety_five (4169)	scenario%ninety_five (scenario_ninety_five) (7.9.8.1.415)
q_95 (4518)	scenario%ninety_five%q_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%q_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%q_95%source (string) (7.9.8.1.4)
elong_95 (4518)	scenario%ninety_five%elong_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%elong_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%elong_95%source (string) (7.9.8.1.4)

tria_95 (4518)	scenario%ninety_five%tria_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%tria_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%tria_95%source (string) (7.9.8.1.4)
tria_up_95 (4518)	scenario%ninety_five%tria_up_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%tria_up_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%tria_up_95%source (string) (7.9.8.1.4)
tria_lo_95 (4518)	scenario%ninety_five%tria_lo_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%tria_lo_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%tria_lo_95%source (string) (7.9.8.1.4)
te_95 (4518)	scenario%ninety_five%te_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%te_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%te_95%source (string) (7.9.8.1.4)
ti_95 (4518)	scenario%ninety_five%ti_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%ti_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%ti_95%source (string) (7.9.8.1.4)
ne_95 (4518)	scenario%ninety_five%ne_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%ne_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%ne_95%source (string) (7.9.8.1.4)
ni_95 (4518)	scenario%ninety_five%ni_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%ni_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%ni_95%source (string) (7.9.8.1.4)
phi_95 (4518)	scenario%ninety_five%phi_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%phi_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%phi_95%source (string) (7.9.8.1.4)
rho_95 (4518)	scenario%ninety_five%rho_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%rho_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%rho_95%source (string) (7.9.8.1.4)
vtor_95 (4518)	scenario%ninety_five%vtor_95 (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%ninety_five%vtor_95%value (float) (7.9.8.1.2)
source (4521)	scenario%ninety_five%vtor_95%source (string) (7.9.8.1.4)
pedestal (4169)	scenario%pedestal (scenario_pedestal) (7.9.8.1.416)
te_ped (4519)	scenario%pedestal%te_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%te_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%te_ped%source (string) (7.9.8.1.4)
ti_ped (4519)	scenario%pedestal%ti_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%ti_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%ti_ped%source (string) (7.9.8.1.4)
ne_ped (4519)	scenario%pedestal%ne_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%ne_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%ne_ped%source (string) (7.9.8.1.4)
ni_ped (4519)	scenario%pedestal%ni_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%ni_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%ni_ped%source (string) (7.9.8.1.4)
psi_ped (4519)	scenario%pedestal%psi_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%psi_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%psi_ped%source (string) (7.9.8.1.4)
phi_ped (4519)	scenario%pedestal%phi_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%phi_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%phi_ped%source (string) (7.9.8.1.4)
rho_ped (4519)	scenario%pedestal%rho_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%rho_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%rho_ped%source (string) (7.9.8.1.4)
q_ped (4519)	scenario%pedestal%q_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%q_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%q_ped%source (string) (7.9.8.1.4)
pressure_ped (4519)	scenario%pedestal%pressure_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%pressure_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%pressure_ped%source (string) (7.9.8.1.4)
vtor_ped (4519)	scenario%pedestal%vtor_ped (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%pedestal%vtor_ped%value (float) (7.9.8.1.2)
source (4521)	scenario%pedestal%vtor_ped%source (string) (7.9.8.1.4)

references (4169)	scenario%references (scenario_references) (7.9.8.1.419)
plh (4522)	scenario%references%plh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%plh%value (float) (7.9.8.1.2)
source (4521)	scenario%references%plh%source (string) (7.9.8.1.4)
picrh (4522)	scenario%references%picrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%picrh%value (float) (7.9.8.1.2)
source (4521)	scenario%references%picrh%source (string) (7.9.8.1.4)
pecrh (4522)	scenario%references%pecrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%pecrh%value (float) (7.9.8.1.2)
source (4521)	scenario%references%pecrh%source (string) (7.9.8.1.4)
pnbi (4522)	scenario%references%pnbi (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%pnbi%value (float) (7.9.8.1.2)
source (4521)	scenario%references%pnbi%source (string) (7.9.8.1.4)
ip (4522)	scenario%references%ip (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%ip%value (float) (7.9.8.1.2)
source (4521)	scenario%references%ip%source (string) (7.9.8.1.4)
bvac_r (4522)	scenario%references%bvac_r (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%bvac_r%value (float) (7.9.8.1.2)
source (4521)	scenario%references%bvac_r%source (string) (7.9.8.1.4)
zeffl (4522)	scenario%references%zeffl (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%zeffl%value (float) (7.9.8.1.2)
source (4521)	scenario%references%zeffl%source (string) (7.9.8.1.4)
nbar (4522)	scenario%references%nbar (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%nbar%value (float) (7.9.8.1.2)
source (4521)	scenario%references%nbar%source (string) (7.9.8.1.4)
xecrh (4522)	scenario%references%xecrh (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%xecrh%value (float) (7.9.8.1.2)
source (4521)	scenario%references%xecrh%source (string) (7.9.8.1.4)
pol_flux (4522)	scenario%references%pol_flux (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%pol_flux%value (float) (7.9.8.1.2)
source (4521)	scenario%references%pol_flux%source (string) (7.9.8.1.4)
enhancement (4522)	scenario%references%enhancement (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%enhancement%value (float) (7.9.8.1.2)
source (4521)	scenario%references%enhancement%source (string) (7.9.8.1.4)
isotopic (4522)	scenario%references%isotopic (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%isotopic%value (float) (7.9.8.1.2)
source (4521)	scenario%references%isotopic%source (string) (7.9.8.1.4)
nbi_td_ratio (4522)	scenario%references%nbi_td_ratio (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%nbi_td_ratio%value (float) (7.9.8.1.2)
source (4521)	scenario%references%nbi_td_ratio%source (string) (7.9.8.1.4)
gas_puff (4522)	scenario%references%gas_puff (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%references%gas_puff%value (float) (7.9.8.1.2)
source (4521)	scenario%references%gas_puff%source (string) (7.9.8.1.4)
reactor (4169)	scenario%reactor (scenario_reactor) (7.9.8.1.417)
pnetwork (4520)	scenario%reactor%pnetwork (float) (7.9.8.1.2)
sol (4169)	scenario%sol (scenario_sol) (7.9.8.1.420)
l_te_sol (4523)	scenario%sol%l_te_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_te_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_te_sol%source (string) (7.9.8.1.4)
l_ti_sol (4523)	scenario%sol%l_ti_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_ti_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_ti_sol%source (string) (7.9.8.1.4)
l_ne_sol (4523)	scenario%sol%l_ne_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_ne_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_ne_sol%source (string) (7.9.8.1.4)
l_ni_sol (4523)	scenario%sol%l_ni_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_ni_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_ni_sol%source (string) (7.9.8.1.4)
l_qe_sol (4523)	scenario%sol%l_qe_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_qe_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_qe_sol%source (string) (7.9.8.1.4)

l_qi_sol (4523)	scenario%sol%l_qi_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%l_qi_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%l_qi_sol%source (string) (7.9.8.1.4)
p_rad_sol (4523)	scenario%sol%p_rad_sol (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%p_rad_sol%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%p_rad_sol%source (string) (7.9.8.1.4)
p_neut (4523)	scenario%sol%p_neut (float) (7.9.8.1.2)
gas_puff (4523)	scenario%sol%gas_puff (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%sol%gas_puff%value (float) (7.9.8.1.2)
source (4521)	scenario%sol%gas_puff%source (string) (7.9.8.1.4)
delta_r_in (4523)	scenario%sol%delta_r_in (float) (7.9.8.1.2)
delta_r_out (4523)	scenario%sol%delta_r_out (float) (7.9.8.1.2)
r_in (4523)	scenario%sol%r_in (float) (7.9.8.1.2)
r_out (4523)	scenario%sol%r_out (float) (7.9.8.1.2)
sol_width (4523)	scenario%sol%sol_width (float) (7.9.8.1.2)
vol_ave (4169)	scenario%vol_ave (scenario_vol_ave) (7.9.8.1.421)
te_ave (4524)	scenario%vol_ave%te_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%te_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%te_ave%source (string) (7.9.8.1.4)
ti_ave (4524)	scenario%vol_ave%ti_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%ti_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%ti_ave%source (string) (7.9.8.1.4)
ne_ave (4524)	scenario%vol_ave%ne_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%ne_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%ne_ave%source (string) (7.9.8.1.4)
dne_ave_dt (4524)	scenario%vol_ave%dne_ave_dt (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%dne_ave_dt%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%dne_ave_dt%source (string) (7.9.8.1.4)
ni_ave (4524)	scenario%vol_ave%ni_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%ni_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%ni_ave%source (string) (7.9.8.1.4)
zeff_ave (4524)	scenario%vol_ave%zeff_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%zeff_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%zeff_ave%source (string) (7.9.8.1.4)
ti_o_te_ave (4524)	scenario%vol_ave%ti_o_te_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%ti_o_te_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%ti_o_te_ave%source (string) (7.9.8.1.4)
meff_ave (4524)	scenario%vol_ave%meff_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%meff_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%meff_ave%source (string) (7.9.8.1.4)
pellet_flux (4524)	scenario%vol_ave%pellet_flux (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%pellet_flux%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%pellet_flux%source (string) (7.9.8.1.4)
nions_ave (4524)	scenario%vol_ave%nions_ave (vecflt_type) (7.9.8.1.18)
omega_ave (4524)	scenario%vol_ave%omega_ave (scenario_ref) (7.9.8.1.418)
value (4521)	scenario%vol_ave%omega_ave%value (float) (7.9.8.1.2)
source (4521)	scenario%vol_ave%omega_ave%source (string) (7.9.8.1.4)
codeparam (4169)	scenario%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	scenario%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	scenario%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	scenario%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	scenario%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	scenario%codeparam%output_flag (integer) (7.9.8.1.3)
time (4169)	scenario%time (float) (7.9.8.1.2)

7.9.8.2.45 solcurdiag

datainfo (4170)	solcurdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	solcurdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	solcurdiag%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	solcurdiag%datainfo%source (string) (7.9.8.1.4)

comment (4265)	solcurdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	solcurdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	solcurdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	solcurdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	solcurdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	solcurdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	solcurdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	solcurdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	solcurdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	solcurdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	solcurdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	solcurdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	solcurdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	solcurdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	solcurdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
sol_current (4170)	solcurdiag%sol_current(:) (solcurdiag_sol_current) (7.9.8.1.429)
setup (4532)	solcurdiag%sol_current(:)%setup (solcurdiag_sol_current_setup) (7.9.8.1.430)
name (4533)	solcurdiag%sol_current(:)%setup%name (string) (7.9.8.1.4)
id (4533)	solcurdiag%sol_current(:)%setup%id (integer) (7.9.8.1.3)
position (4533)	solcurdiag%sol_current(:)%setup%position (rz1D) (7.9.8.1.387)
r (4490)	solcurdiag%sol_current(:)%setup%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	solcurdiag%sol_current(:)%setup%position%z (vecflt_type) (7.9.8.1.18)
tiles_turn (4533)	solcurdiag%sol_current(:)%setup%tiles_turn (integer) (7.9.8.1.3)
measure (4532)	solcurdiag%sol_current(:)%measure (exp0D) (7.9.8.1.224)
value (4327)	solcurdiag%sol_current(:)%measure%value (float) (7.9.8.1.2)
abserror (4327)	solcurdiag%sol_current(:)%measure%abserror (float) (7.9.8.1.2)
relerror (4327)	solcurdiag%sol_current(:)%measure%relerror (float) (7.9.8.1.2)
clusters (4170)	solcurdiag%clusters(:) (clusters) (7.9.8.1.104)
name (4207)	solcurdiag%clusters(:)%name (string) (7.9.8.1.4)
start (4207)	solcurdiag%clusters(:)%start (integer) (7.9.8.1.3)
finish (4207)	solcurdiag%clusters(:)%finish (integer) (7.9.8.1.3)
time (4170)	solcurdiag%time (float) (7.9.8.1.2)
codeparam (4170)	solcurdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	solcurdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	solcurdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	solcurdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	solcurdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	solcurdiag%codeparam%output_flag (integer) (7.9.8.1.3)

7.9.8.2.46 temporary

datainfo (4171)	temporary%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	temporary%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	temporary%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	temporary%datainfo%source (string) (7.9.8.1.4)
comment (4265)	temporary%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	temporary%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	temporary%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	temporary%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	temporary%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	temporary%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	temporary%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	temporary%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	temporary%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	temporary%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	temporary%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	temporary%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	temporary%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	temporary%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	temporary%datainfo%putinfo%rights (string) (7.9.8.1.4)
non_timed (4171)	temporary%non_timed (temporary_nt) (7.9.8.1.451)

float0d (4554)	temporary%non_timed%float0d(:) (temporary_nt_0dr) (7.9.8.1.454)
identifier (4557)	temporary%non_timed%float0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%float0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%float0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%float0d(:)%identifier%description (string) (7.9.8.1.4)
value (4557)	temporary%non_timed%float0d(:)%value (float) (7.9.8.1.2)
integer0d (4554)	temporary%non_timed%integer0d(:) (temporary_nt_0di) (7.9.8.1.453)
identifier (4556)	temporary%non_timed%integer0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%integer0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%integer0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%integer0d(:)%identifier%description (string) (7.9.8.1.4)
value (4556)	temporary%non_timed%integer0d(:)%value (integer) (7.9.8.1.3)
complex0d (4554)	temporary%non_timed%complex0d(:) (temporary_nt_0dc) (7.9.8.1.452)
identifier (4555)	temporary%non_timed%complex0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%complex0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%complex0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%complex0d(:)%identifier%description (string) (7.9.8.1.4)
value (4555)	temporary%non_timed%complex0d(:)%value (cplx_type) (7.9.8.1.13)
string0d (4554)	temporary%non_timed%string0d(:) (temporary_nt_0ds) (7.9.8.1.455)
identifier (4558)	temporary%non_timed%string0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%string0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%string0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%string0d(:)%identifier%description (string) (7.9.8.1.4)
value (4558)	temporary%non_timed%string0d(:)%value (string) (7.9.8.1.4)
float1d (4554)	temporary%non_timed%float1d(:) (temporary_nt_1dr) (7.9.8.1.458)
identifier (4561)	temporary%non_timed%float1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%float1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%float1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%float1d(:)%identifier%description (string) (7.9.8.1.4)
value (4561)	temporary%non_timed%float1d(:)%value (vecflt_type) (7.9.8.1.18)
integer1d (4554)	temporary%non_timed%integer1d(:) (temporary_nt_1di) (7.9.8.1.457)
identifier (4560)	temporary%non_timed%integer1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%integer1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%integer1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%integer1d(:)%identifier%description (string) (7.9.8.1.4)
value (4560)	temporary%non_timed%integer1d(:)%value (vecint_type) (7.9.8.1.19)
string1d (4554)	temporary%non_timed%string1d(:) (temporary_nt_1dr) (7.9.8.1.458)
identifier (4561)	temporary%non_timed%string1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%string1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%string1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%string1d(:)%identifier%description (string) (7.9.8.1.4)
value (4561)	temporary%non_timed%string1d(:)%value (vecflt_type) (7.9.8.1.18)
complex1d (4554)	temporary%non_timed%complex1d(:) (temporary_nt_1dc) (7.9.8.1.456)
identifier (4559)	temporary%non_timed%complex1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%complex1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%complex1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%complex1d(:)%identifier%description (string) (7.9.8.1.4)
value (4559)	temporary%non_timed%complex1d(:)%value (veccplx_type) (7.9.8.1.17)
float2d (4554)	temporary%non_timed%float2d(:) (temporary_nt_2dr) (7.9.8.1.462)
identifier (4565)	temporary%non_timed%float2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%float2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%float2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%float2d(:)%identifier%description (string) (7.9.8.1.4)
value (4565)	temporary%non_timed%float2d(:)%value (matflt_type) (7.9.8.1.15)
integer2d (4554)	temporary%non_timed%integer2d(:) (temporary_nt_2di) (7.9.8.1.461)
identifier (4564)	temporary%non_timed%integer2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%integer2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%integer2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%integer2d(:)%identifier%description (string) (7.9.8.1.4)
value (4564)	temporary%non_timed%integer2d(:)%value (matint_type) (7.9.8.1.16)
complex2d (4554)	temporary%non_timed%complex2d(:) (temporary_nt_2dc) (7.9.8.1.460)

identifier (4563)	temporary%non_timed%complex2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%complex2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%complex2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%complex2d(:)%identifier%description (string) (7.9.8.1.4)
value (4563)	temporary%non_timed%complex2d(:)%value (matcplx_type) (7.9.8.1.14)
float3d (4554)	temporary%non_timed%float3d(:) (temporary_nt_3dr) (7.9.8.1.465)
identifier (4568)	temporary%non_timed%float3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%float3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%float3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%float3d(:)%identifier%description (string) (7.9.8.1.4)
value (4568)	temporary%non_timed%float3d(:)%value (array3dflt_type) (7.9.8.1.7)
integer3d (4554)	temporary%non_timed%integer3d(:) (temporary_nt_3di) (7.9.8.1.464)
identifier (4567)	temporary%non_timed%integer3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%integer3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%integer3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%integer3d(:)%identifier%description (string) (7.9.8.1.4)
value (4567)	temporary%non_timed%integer3d(:)%value (array3dint_type) (7.9.8.1.8)
complex3d (4554)	temporary%non_timed%complex3d(:) (temporary_nt_3dc) (7.9.8.1.463)
identifier (4566)	temporary%non_timed%complex3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%complex3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%complex3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%complex3d(:)%identifier%description (string) (7.9.8.1.4)
value (4566)	temporary%non_timed%complex3d(:)%value (array3dcplx_type) (7.9.8.1.6)
float4d (4554)	temporary%non_timed%float4d(:) (temporary_nt_4dr) (7.9.8.1.466)
identifier (4569)	temporary%non_timed%float4d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%non_timed%float4d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%non_timed%float4d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%non_timed%float4d(:)%identifier%description (string) (7.9.8.1.4)
value (4569)	temporary%non_timed%float4d(:)%value (array4dflt_type) (7.9.8.1.9)
timed (4171)	temporary%timed (temporary_t) (7.9.8.1.467)
float0d (4570)	temporary%timed%float0d(:) (temporary_t_0dr) (7.9.8.1.470)
identifier (4573)	temporary%timed%float0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%float0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%float0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%float0d(:)%identifier%description (string) (7.9.8.1.4)
value (4573)	temporary%timed%float0d(:)%value (float) (7.9.8.1.2)
integer0d (4570)	temporary%timed%integer0d(:) (temporary_t_0di) (7.9.8.1.469)
identifier (4572)	temporary%timed%integer0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%integer0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%integer0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%integer0d(:)%identifier%description (string) (7.9.8.1.4)
value (4572)	temporary%timed%integer0d(:)%value (integer) (7.9.8.1.3)
complex0d (4570)	temporary%timed%complex0d(:) (temporary_t_0dc) (7.9.8.1.468)
identifier (4571)	temporary%timed%complex0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%complex0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%complex0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%complex0d(:)%identifier%description (string) (7.9.8.1.4)
value (4571)	temporary%timed%complex0d(:)%value (cplx_type) (7.9.8.1.13)
string0d (4570)	temporary%timed%string0d(:) (temporary_t_0ds) (7.9.8.1.471)
identifier (4574)	temporary%timed%string0d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%string0d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%string0d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%string0d(:)%identifier%description (string) (7.9.8.1.4)
value (4574)	temporary%timed%string0d(:)%value (string) (7.9.8.1.4)
float1d (4570)	temporary%timed%float1d(:) (temporary_t_1dr) (7.9.8.1.474)
identifier (4577)	temporary%timed%float1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%float1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%float1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%float1d(:)%identifier%description (string) (7.9.8.1.4)
value (4577)	temporary%timed%float1d(:)%value (vecflt_type) (7.9.8.1.18)
integer1d (4570)	temporary%timed%integer1d(:) (temporary_t_1di) (7.9.8.1.473)

identifier (4576)	temporary%timed%integer1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%integer1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%integer1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%integer1d(:)%identifier%description (string) (7.9.8.1.4)
value (4576)	temporary%timed%integer1d(:)%value (vecint_type) (7.9.8.1.19)
complex1d (4570)	temporary%timed%complex1d(:) (temporary_t_1dc) (7.9.8.1.472)
identifier (4575)	temporary%timed%complex1d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%complex1d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%complex1d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%complex1d(:)%identifier%description (string) (7.9.8.1.4)
value (4575)	temporary%timed%complex1d(:)%value (veccplx_type) (7.9.8.1.17)
float2d (4570)	temporary%timed%float2d(:) (temporary_t_2dr) (7.9.8.1.477)
identifier (4580)	temporary%timed%float2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%float2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%float2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%float2d(:)%identifier%description (string) (7.9.8.1.4)
value (4580)	temporary%timed%float2d(:)%value (matflt_type) (7.9.8.1.15)
integer2d (4570)	temporary%timed%integer2d(:) (temporary_t_2di) (7.9.8.1.476)
identifier (4579)	temporary%timed%integer2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%integer2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%integer2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%integer2d(:)%identifier%description (string) (7.9.8.1.4)
value (4579)	temporary%timed%integer2d(:)%value (matint_type) (7.9.8.1.16)
complex2d (4570)	temporary%timed%complex2d(:) (temporary_t_2dc) (7.9.8.1.475)
identifier (4578)	temporary%timed%complex2d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%complex2d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%complex2d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%complex2d(:)%identifier%description (string) (7.9.8.1.4)
value (4578)	temporary%timed%complex2d(:)%value (matcplx_type) (7.9.8.1.14)
float3d (4570)	temporary%timed%float3d(:) (temporary_t_3dr) (7.9.8.1.480)
identifier (4583)	temporary%timed%float3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%float3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%float3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%float3d(:)%identifier%description (string) (7.9.8.1.4)
value (4583)	temporary%timed%float3d(:)%value (array3dflt_type) (7.9.8.1.7)
integer3d (4570)	temporary%timed%integer3d(:) (temporary_t_3di) (7.9.8.1.479)
identifier (4582)	temporary%timed%integer3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%integer3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%integer3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%integer3d(:)%identifier%description (string) (7.9.8.1.4)
value (4582)	temporary%timed%integer3d(:)%value (array3dint_type) (7.9.8.1.8)
complex3d (4570)	temporary%timed%complex3d(:) (temporary_t_3dc) (7.9.8.1.478)
identifier (4581)	temporary%timed%complex3d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%complex3d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%complex3d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%complex3d(:)%identifier%description (string) (7.9.8.1.4)
value (4581)	temporary%timed%complex3d(:)%value (array3dcplx_type) (7.9.8.1.6)
float4d (4570)	temporary%timed%float4d(:) (temporary_t_4dr) (7.9.8.1.481)
identifier (4584)	temporary%timed%float4d(:)%identifier (identifier) (7.9.8.1.263)
id (4366)	temporary%timed%float4d(:)%identifier%id (string) (7.9.8.1.4)
flag (4366)	temporary%timed%float4d(:)%identifier%flag (integer) (7.9.8.1.3)
description (4366)	temporary%timed%float4d(:)%identifier%description (string) (7.9.8.1.4)
value (4584)	temporary%timed%float4d(:)%value (array4dflt_type) (7.9.8.1.9)
codeparam (4171)	temporary%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	temporary%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	temporary%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	temporary%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	temporary%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	temporary%codeparam%output_flag (integer) (7.9.8.1.3)
time (4171)	temporary%time (float) (7.9.8.1.2)

7.9.8.2.47 topinfo

dataprovider (4172)	topinfo%dataprovider (string) (7.9.8.1.4)
description (4172)	topinfo%description (string) (7.9.8.1.4)
firstputdate (4172)	topinfo%firstputdate (string) (7.9.8.1.4)
lastupdate (4172)	topinfo%lastupdate (string) (7.9.8.1.4)
source (4172)	topinfo%source (string) (7.9.8.1.4)
comment (4172)	topinfo%comment (string) (7.9.8.1.4)
dataversion (4172)	topinfo%dataversion (string) (7.9.8.1.4)
workflow (4172)	topinfo%workflow (string) (7.9.8.1.4)
entry (4172)	topinfo%entry (entry_def) (7.9.8.1.215)
user (4318)	topinfo%entry%user (string) (7.9.8.1.4)
machine (4318)	topinfo%entry%machine (string) (7.9.8.1.4)
shot (4318)	topinfo%entry%shot (integer) (7.9.8.1.3)
run (4318)	topinfo%entry%run (integer) (7.9.8.1.3)
parent_entry (4172)	topinfo%parent_entry (entry_def) (7.9.8.1.215)
user (4318)	topinfo%parent_entry%user (string) (7.9.8.1.4)
machine (4318)	topinfo%parent_entry%machine (string) (7.9.8.1.4)
shot (4318)	topinfo%parent_entry%shot (integer) (7.9.8.1.3)
run (4318)	topinfo%parent_entry%run (integer) (7.9.8.1.3)
mdinfo (4172)	topinfo%mdinfo (mdinfo) (7.9.8.1.290)
shot_min (4393)	topinfo%mdinfo%shot_min (integer) (7.9.8.1.3)
shot_max (4393)	topinfo%mdinfo%shot_max (integer) (7.9.8.1.3)
md_entry (4393)	topinfo%mdinfo%md_entry (entry_def) (7.9.8.1.215)
user (4318)	topinfo%mdinfo%md_entry%user (string) (7.9.8.1.4)
machine (4318)	topinfo%mdinfo%md_entry%machine (string) (7.9.8.1.4)
shot (4318)	topinfo%mdinfo%md_entry%shot (integer) (7.9.8.1.3)
run (4318)	topinfo%mdinfo%md_entry%run (integer) (7.9.8.1.3)

7.9.8.2.48 toroidfield

datainfo (4173)	toroidfield%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	toroidfield%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	toroidfield%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	toroidfield%datainfo%source (string) (7.9.8.1.4)
comment (4265)	toroidfield%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	toroidfield%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	toroidfield%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	toroidfield%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	toroidfield%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	toroidfield%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	toroidfield%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	toroidfield%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	toroidfield%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	toroidfield%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	toroidfield%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	toroidfield%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	toroidfield%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	toroidfield%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	toroidfield%datainfo%putinfo%rights (string) (7.9.8.1.4)
desc_tfcoils (4173)	toroidfield%desc_tfcoils (tf_desc_tfcoils) (7.9.8.1.482)
type (4585)	toroidfield%desc_tfcoils%type (integer) (7.9.8.1.3)
phi (4585)	toroidfield%desc_tfcoils%phi (float) (7.9.8.1.2)
circularcoil (4585)	toroidfield%desc_tfcoils%circularcoil (circularcoil) (7.9.8.1.103)
centre (4206)	toroidfield%desc_tfcoils%circularcoil%centre (rz0D) (7.9.8.1.386)
r (4489)	toroidfield%desc_tfcoils%circularcoil%centre%r (float) (7.9.8.1.2)
z (4489)	toroidfield%desc_tfcoils%circularcoil%centre%z (float) (7.9.8.1.2)
hlength (4206)	toroidfield%desc_tfcoils%circularcoil%hlength (float) (7.9.8.1.2)
radialhwidth (4206)	toroidfield%desc_tfcoils%circularcoil%radialhwidth (float) (7.9.8.1.2)
planecoil (4585)	toroidfield%desc_tfcoils%planecoil (planecoil) (7.9.8.1.358)
coordinates (4461)	toroidfield%desc_tfcoils%planecoil%coordinates (rz1D) (7.9.8.1.387)

r (4490)	toroidfield%desc_tfcoils%planecoil%coordinates%r (vecflt_type) (7.9.8.1.18)
z (4490)	toroidfield%desc_tfcoils%planecoil%coordinates%z (vecflt_type) (7.9.8.1.18)
hlength (4461)	toroidfield%desc_tfcoils%planecoil%hlength (vecflt_type) (7.9.8.1.18)
radialhwidth (4461)	toroidfield%desc_tfcoils%planecoil%radialhwidth (vecflt_type) (7.9.8.1.18)
inboard (4585)	toroidfield%desc_tfcoils%inboard (tf_structure) (7.9.8.1.484)
jcable (4587)	toroidfield%desc_tfcoils%inboard%jcable (float) (7.9.8.1.2)
tisotf (4587)	toroidfield%desc_tfcoils%inboard%tisotf (float) (7.9.8.1.2)
efcasing (4587)	toroidfield%desc_tfcoils%inboard%efcasing (float) (7.9.8.1.2)
escasing (4587)	toroidfield%desc_tfcoils%inboard%escasing (float) (7.9.8.1.2)
sigjackettf (4587)	toroidfield%desc_tfcoils%inboard%sigjackettf (float) (7.9.8.1.2)
sigvaulttf (4587)	toroidfield%desc_tfcoils%inboard%sigvaulttf (float) (7.9.8.1.2)
ktf (4587)	toroidfield%desc_tfcoils%inboard%ktf (float) (7.9.8.1.2)
ritf (4587)	toroidfield%desc_tfcoils%inboard%ritf (float) (7.9.8.1.2)
riitf (4587)	toroidfield%desc_tfcoils%inboard%riitf (float) (7.9.8.1.2)
retf (4587)	toroidfield%desc_tfcoils%inboard%retf (float) (7.9.8.1.2)
he_fraction (4587)	toroidfield%desc_tfcoils%inboard%he_fraction (float) (7.9.8.1.2)
ss_fraction (4587)	toroidfield%desc_tfcoils%inboard%ss_fraction (float) (7.9.8.1.2)
pow_dens_wp (4587)	toroidfield%desc_tfcoils%inboard%pow_dens_wp (float) (7.9.8.1.2)
outboard (4585)	toroidfield%desc_tfcoils%outboard (tf_structure) (7.9.8.1.484)
jcable (4587)	toroidfield%desc_tfcoils%outboard%jcable (float) (7.9.8.1.2)
tisotf (4587)	toroidfield%desc_tfcoils%outboard%tisotf (float) (7.9.8.1.2)
efcasing (4587)	toroidfield%desc_tfcoils%outboard%efcasing (float) (7.9.8.1.2)
escasing (4587)	toroidfield%desc_tfcoils%outboard%escasing (float) (7.9.8.1.2)
sigjackettf (4587)	toroidfield%desc_tfcoils%outboard%sigjackettf (float) (7.9.8.1.2)
sigvaulttf (4587)	toroidfield%desc_tfcoils%outboard%sigvaulttf (float) (7.9.8.1.2)
ktf (4587)	toroidfield%desc_tfcoils%outboard%ktf (float) (7.9.8.1.2)
ritf (4587)	toroidfield%desc_tfcoils%outboard%ritf (float) (7.9.8.1.2)
riitf (4587)	toroidfield%desc_tfcoils%outboard%riitf (float) (7.9.8.1.2)
retf (4587)	toroidfield%desc_tfcoils%outboard%retf (float) (7.9.8.1.2)
he_fraction (4587)	toroidfield%desc_tfcoils%outboard%he_fraction (float) (7.9.8.1.2)
ss_fraction (4587)	toroidfield%desc_tfcoils%outboard%ss_fraction (float) (7.9.8.1.2)
pow_dens_wp (4587)	toroidfield%desc_tfcoils%outboard%pow_dens_wp (float) (7.9.8.1.2)
nturns (4173)	toroidfield%nturns (integer) (7.9.8.1.3)
ncoils (4173)	toroidfield%ncoils (integer) (7.9.8.1.3)
current (4173)	toroidfield%current (exp0D) (7.9.8.1.224)
value (4327)	toroidfield%current%value (float) (7.9.8.1.2)
abserror (4327)	toroidfield%current%abserror (float) (7.9.8.1.2)
relerror (4327)	toroidfield%current%relerror (float) (7.9.8.1.2)
bvac_r (4173)	toroidfield%bvac_r (exp0D) (7.9.8.1.224)
value (4327)	toroidfield%bvac_r%value (float) (7.9.8.1.2)
abserror (4327)	toroidfield%bvac_r%abserror (float) (7.9.8.1.2)
relerror (4327)	toroidfield%bvac_r%relerror (float) (7.9.8.1.2)
r0 (4173)	toroidfield%r0 (float) (7.9.8.1.2)
p_cryo (4173)	toroidfield%p_cryo (float) (7.9.8.1.2)
wp_nh_max (4173)	toroidfield%wp_nh_max (float) (7.9.8.1.2)
tfc_nh (4173)	toroidfield%tfc_nh (float) (7.9.8.1.2)
neut_flux_inb (4173)	toroidfield%neut_flux_inb (float) (7.9.8.1.2)
neut_flux_outb (4173)	toroidfield%neut_flux_outb (float) (7.9.8.1.2)
codeparam (4173)	toroidfield%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	toroidfield%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	toroidfield%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	toroidfield%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	toroidfield%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	toroidfield%codeparam%output_flag (integer) (7.9.8.1.3)
time (4173)	toroidfield%time (float) (7.9.8.1.2)

7.9.8.2.49 tsdiag

datainfo (4174)	tsdiag%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	tsdiag%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	tsdiag%datainfo%putdate (string) (7.9.8.1.4)

source (4265)	tsdiag%datainfo%source (string) (7.9.8.1.4)
comment (4265)	tsdiag%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	tsdiag%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	tsdiag%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	tsdiag%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	tsdiag%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	tsdiag%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	tsdiag%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	tsdiag%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	tsdiag%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	tsdiag%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	tsdiag%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	tsdiag%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	tsdiag%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	tsdiag%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	tsdiag%datainfo%putinfo%rights (string) (7.9.8.1.4)
setup (4174)	tsdiag%setup (tssetup) (7.9.8.1.496)
position (4599)	tsdiag%setup%position (rzphi1D) (7.9.8.1.393)
r (4496)	tsdiag%setup%position%r (vecflt_type) (7.9.8.1.18)
z (4496)	tsdiag%setup%position%z (vecflt_type) (7.9.8.1.18)
phi (4496)	tsdiag%setup%position%phi (vecflt_type) (7.9.8.1.18)
measure (4174)	tsdiag%measure (tsmeasure) (7.9.8.1.495)
te (4598)	tsdiag%measure%te (exp1D) (7.9.8.1.225)
value (4328)	tsdiag%measure%te%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	tsdiag%measure%te%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	tsdiag%measure%te%relerror (vecflt_type) (7.9.8.1.18)
ne (4598)	tsdiag%measure%ne (exp1D) (7.9.8.1.225)
value (4328)	tsdiag%measure%ne%value (vecflt_type) (7.9.8.1.18)
abserror (4328)	tsdiag%measure%ne%abserror (vecflt_type) (7.9.8.1.18)
relerror (4328)	tsdiag%measure%ne%relerror (vecflt_type) (7.9.8.1.18)
codeparam (4174)	tsdiag%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	tsdiag%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	tsdiag%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	tsdiag%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	tsdiag%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	tsdiag%codeparam%output_flag (integer) (7.9.8.1.3)
time (4174)	tsdiag%time (float) (7.9.8.1.2)

7.9.8.2.50 turbulence

datainfo (4175)	turbulence%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	turbulence%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	turbulence%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	turbulence%datainfo%source (string) (7.9.8.1.4)
comment (4265)	turbulence%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	turbulence%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	turbulence%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	turbulence%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	turbulence%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	turbulence%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	turbulence%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	turbulence%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	turbulence%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	turbulence%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	turbulence%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	turbulence%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	turbulence%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	turbulence%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	turbulence%datainfo%putinfo%rights (string) (7.9.8.1.4)
composition (4175)	turbulence%composition (turbcomposition) (7.9.8.1.497)
amn (4600)	turbulence%composition%amn (vecflt_type) (7.9.8.1.18)

zn (4600)	turbulence%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4600)	turbulence%composition%zion (vecflt_type) (7.9.8.1.18)
ie_mass (4600)	turbulence%composition%ie_mass (vecflt_type) (7.9.8.1.18)
coordsys (4175)	turbulence%coordsys (turbcoordsys) (7.9.8.1.498)
grid_type (4601)	turbulence%coordsys%grid_type (string) (7.9.8.1.4)
turbgrid (4601)	turbulence%coordsys%turbgrid (turbgrid) (7.9.8.1.500)
dim1 (4603)	turbulence%coordsys%turbgrid%dim1 (vecflt_type) (7.9.8.1.18)
dim2 (4603)	turbulence%coordsys%turbgrid%dim2 (vecflt_type) (7.9.8.1.18)
dim3 (4603)	turbulence%coordsys%turbgrid%dim3 (vecflt_type) (7.9.8.1.18)
dim_v1 (4603)	turbulence%coordsys%turbgrid%dim_v1 (vecflt_type) (7.9.8.1.18)
dim_v2 (4603)	turbulence%coordsys%turbgrid%dim_v2 (vecflt_type) (7.9.8.1.18)
jacobian (4601)	turbulence%coordsys%jacobian (matflt_type) (7.9.8.1.15)
g_11 (4601)	turbulence%coordsys%g_11 (matflt_type) (7.9.8.1.15)
g_12 (4601)	turbulence%coordsys%g_12 (matflt_type) (7.9.8.1.15)
g_13 (4601)	turbulence%coordsys%g_13 (matflt_type) (7.9.8.1.15)
g_22 (4601)	turbulence%coordsys%g_22 (matflt_type) (7.9.8.1.15)
g_23 (4601)	turbulence%coordsys%g_23 (matflt_type) (7.9.8.1.15)
g_33 (4601)	turbulence%coordsys%g_33 (matflt_type) (7.9.8.1.15)
position (4601)	turbulence%coordsys%position (rzphi3D) (7.9.8.1.397)
r (4500)	turbulence%coordsys%position%r (array3dflt_type) (7.9.8.1.7)
z (4500)	turbulence%coordsys%position%z (array3dflt_type) (7.9.8.1.7)
phi (4500)	turbulence%coordsys%position%phi (array3dflt_type) (7.9.8.1.7)
var0d (4175)	turbulence%var0d (turbvar0d) (7.9.8.1.502)
dtime_type (4605)	turbulence%var0d%dtime_type (string) (7.9.8.1.4)
dtime (4605)	turbulence%var0d%dtime (vecflt_type) (7.9.8.1.18)
en_exb (4605)	turbulence%var0d%en_exb (vecflt_type) (7.9.8.1.18)
en_mag (4605)	turbulence%var0d%en_mag (vecflt_type) (7.9.8.1.18)
en_el_th (4605)	turbulence%var0d%en_el_th (vecflt_type) (7.9.8.1.18)
en_ion_th (4605)	turbulence%var0d%en_ion_th (matflt_type) (7.9.8.1.15)
en_el_par (4605)	turbulence%var0d%en_el_par (vecflt_type) (7.9.8.1.18)
en_ion_par (4605)	turbulence%var0d%en_ion_par (matflt_type) (7.9.8.1.15)
en_tot (4605)	turbulence%var0d%en_tot (vecflt_type) (7.9.8.1.18)
fl_el (4605)	turbulence%var0d%fl_el (vecflt_type) (7.9.8.1.18)
fl_heatel (4605)	turbulence%var0d%fl_heatel (vecflt_type) (7.9.8.1.18)
fl_ion (4605)	turbulence%var0d%fl_ion (matflt_type) (7.9.8.1.15)
fl_heation (4605)	turbulence%var0d%fl_heation (matflt_type) (7.9.8.1.15)
fl_magel (4605)	turbulence%var0d%fl_magel (vecflt_type) (7.9.8.1.18)
fl_magheatel (4605)	turbulence%var0d%fl_magheatel (vecflt_type) (7.9.8.1.18)
fl_magion (4605)	turbulence%var0d%fl_magion (matflt_type) (7.9.8.1.15)
flmagheation (4605)	turbulence%var0d%flmagheation (matflt_type) (7.9.8.1.15)
var1d (4175)	turbulence%var1d (turbvar1d) (7.9.8.1.503)
rho_tor_norm (4606)	turbulence%var1d%rho_tor_norm (vecflt_type) (7.9.8.1.18)
phi (4606)	turbulence%var1d%phi (vecflt_type) (7.9.8.1.18)
er (4606)	turbulence%var1d%er (vecflt_type) (7.9.8.1.18)
vor (4606)	turbulence%var1d%vor (vecflt_type) (7.9.8.1.18)
apl (4606)	turbulence%var1d%apl (vecflt_type) (7.9.8.1.18)
jpl (4606)	turbulence%var1d%jpl (vecflt_type) (7.9.8.1.18)
ne (4606)	turbulence%var1d%ne (vecflt_type) (7.9.8.1.18)
te (4606)	turbulence%var1d%te (vecflt_type) (7.9.8.1.18)
ni (4606)	turbulence%var1d%ni (matflt_type) (7.9.8.1.15)
ti (4606)	turbulence%var1d%ti (matflt_type) (7.9.8.1.15)
ui (4606)	turbulence%var1d%ui (matflt_type) (7.9.8.1.15)
var2d (4175)	turbulence%var2d (turbvar2d) (7.9.8.1.504)
rho_tor_norm (4607)	turbulence%var2d%rho_tor_norm (vecflt_type) (7.9.8.1.18)
theta (4607)	turbulence%var2d%theta (vecflt_type) (7.9.8.1.18)
phi (4607)	turbulence%var2d%phi (matflt_type) (7.9.8.1.15)
apl (4607)	turbulence%var2d%apl (matflt_type) (7.9.8.1.15)
jpl (4607)	turbulence%var2d%jpl (matflt_type) (7.9.8.1.15)
vor (4607)	turbulence%var2d%vor (matflt_type) (7.9.8.1.15)
ne (4607)	turbulence%var2d%ne (matflt_type) (7.9.8.1.15)
te (4607)	turbulence%var2d%te (matflt_type) (7.9.8.1.15)

ni (4607)	turbulence%var2d%ni (array3dflt_type) (7.9.8.1.7)
ti (4607)	turbulence%var2d%ti (array3dflt_type) (7.9.8.1.7)
ui (4607)	turbulence%var2d%ui (array3dflt_type) (7.9.8.1.7)
var3d (4175)	turbulence%var3d (turbvar3d) (7.9.8.1.505)
phi (4608)	turbulence%var3d%phi (array3dflt_type) (7.9.8.1.7)
vor (4608)	turbulence%var3d%vor (array3dflt_type) (7.9.8.1.7)
jpl (4608)	turbulence%var3d%jpl (array3dflt_type) (7.9.8.1.7)
ne (4608)	turbulence%var3d%ne (array3dflt_type) (7.9.8.1.7)
var4d (4175)	turbulence%var4d (turbvar4d) (7.9.8.1.506)
fe (4609)	turbulence%var4d%fe (array4dflt_type) (7.9.8.1.9)
fi (4609)	turbulence%var4d%fi (array5dflt_type) (7.9.8.1.10)
var5d (4175)	turbulence%var5d (turbvar5d) (7.9.8.1.507)
fe (4610)	turbulence%var5d%fe (array5dflt_type) (7.9.8.1.10)
fi (4610)	turbulence%var5d%fi (array6dflt_type) (7.9.8.1.11)
spec1d (4175)	turbulence%spec1d (turbspec1d) (7.9.8.1.501)
kperp (4604)	turbulence%spec1d%kperp (vecflt_type) (7.9.8.1.18)
phi (4604)	turbulence%spec1d%phi (vecflt_type) (7.9.8.1.18)
vor (4604)	turbulence%spec1d%vor (vecflt_type) (7.9.8.1.18)
b (4604)	turbulence%spec1d%b (vecflt_type) (7.9.8.1.18)
jpl (4604)	turbulence%spec1d%jpl (vecflt_type) (7.9.8.1.18)
ne (4604)	turbulence%spec1d%ne (vecflt_type) (7.9.8.1.18)
te (4604)	turbulence%spec1d%te (vecflt_type) (7.9.8.1.18)
ti (4604)	turbulence%spec1d%ti (matflt_type) (7.9.8.1.15)
fe (4604)	turbulence%spec1d%fe (vecflt_type) (7.9.8.1.18)
qe (4604)	turbulence%spec1d%qe (vecflt_type) (7.9.8.1.18)
qi (4604)	turbulence%spec1d%qi (matflt_type) (7.9.8.1.15)
me (4604)	turbulence%spec1d%me (vecflt_type) (7.9.8.1.18)
mi (4604)	turbulence%spec1d%mi (matflt_type) (7.9.8.1.15)
env1d (4175)	turbulence%env1d (turbenv1d) (7.9.8.1.499)
theta (4602)	turbulence%env1d%theta (vecflt_type) (7.9.8.1.18)
phi (4602)	turbulence%env1d%phi (vecflt_type) (7.9.8.1.18)
vor (4602)	turbulence%env1d%vor (vecflt_type) (7.9.8.1.18)
jpl (4602)	turbulence%env1d%jpl (vecflt_type) (7.9.8.1.18)
ne (4602)	turbulence%env1d%ne (vecflt_type) (7.9.8.1.18)
he (4602)	turbulence%env1d%he (vecflt_type) (7.9.8.1.18)
te (4602)	turbulence%env1d%te (vecflt_type) (7.9.8.1.18)
ni (4602)	turbulence%env1d%ni (matflt_type) (7.9.8.1.15)
ti (4602)	turbulence%env1d%ti (matflt_type) (7.9.8.1.15)
ui (4602)	turbulence%env1d%ui (matflt_type) (7.9.8.1.15)
fe (4602)	turbulence%env1d%fe (vecflt_type) (7.9.8.1.18)
qe (4602)	turbulence%env1d%qe (vecflt_type) (7.9.8.1.18)
qi (4602)	turbulence%env1d%qi (matflt_type) (7.9.8.1.15)
me (4602)	turbulence%env1d%me (vecflt_type) (7.9.8.1.18)
mi (4602)	turbulence%env1d%mi (matflt_type) (7.9.8.1.15)
codeparam (4175)	turbulence%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	turbulence%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	turbulence%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	turbulence%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	turbulence%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	turbulence%codeparam%output_flag (integer) (7.9.8.1.3)
time (4175)	turbulence%time (float) (7.9.8.1.2)

7.9.8.2.51 wall

datainfo (4176)	wall%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	wall%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	wall%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	wall%datainfo%source (string) (7.9.8.1.4)
comment (4265)	wall%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	wall%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	wall%datainfo%id (integer) (7.9.8.1.3)

isref (4265)	wall%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	wall%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	wall%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	wall%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	wall%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	wall%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	wall%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	wall%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	wall%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	wall%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	wall%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	wall%datainfo%putinfo%rights (string) (7.9.8.1.4)
wall0d (4176)	wall%wall0d (wall_wall0d) (7.9.8.1.522)
pumping_speed (4625)	wall%wall0d%pumping_speed (vecflt_type) (7.9.8.1.18)
gas_puff (4625)	wall%wall0d%gas_puff (vecflt_type) (7.9.8.1.18)
wall_inventory (4625)	wall%wall0d%wall_inventory (vecflt_type) (7.9.8.1.18)
recycling_coefficient (4625)	wall%wall0d%recycling_coefficient (vecflt_type) (7.9.8.1.18)
wall_temperature (4625)	wall%wall0d%wall_temperature (float) (7.9.8.1.2)
power_from_plasma (4625)	wall%wall0d%power_from_plasma (float) (7.9.8.1.2)
power_to_cooling (4625)	wall%wall0d%power_to_cooling (float) (7.9.8.1.2)
plasma (4625)	wall%wall0d%plasma (wall_wall0d_plasma) (7.9.8.1.523)
species_index (4626)	wall%wall0d%plasma%species_index (matint_type) (7.9.8.1.16)
flux (4626)	wall%wall0d%plasma%flux (vecflt_type) (7.9.8.1.18)
energy (4626)	wall%wall0d%plasma%energy (vecflt_type) (7.9.8.1.18)
wall2d_mhd (4176)	wall%wall2d_mhd (wall2d_mhd) (7.9.8.1.510)
res_wall (4613)	wall%wall2d_mhd%res_wall(:) (mhd_res_wall2d) (7.9.8.1.294)
walltype (4397)	wall%wall2d_mhd%res_wall(:)%walltype (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d_mhd%res_wall(:)%walltype%id (string) (7.9.8.1.4)
flag (4366)	wall%wall2d_mhd%res_wall(:)%walltype%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d_mhd%res_wall(:)%walltype%description (string) (7.9.8.1.4)
delta (4397)	wall%wall2d_mhd%res_wall(:)%delta (float) (7.9.8.1.2)
eta (4397)	wall%wall2d_mhd%res_wall(:)%eta (float) (7.9.8.1.2)
npoloidal (4397)	wall%wall2d_mhd%res_wall(:)%npoloidal (integer) (7.9.8.1.3)
position (4397)	wall%wall2d_mhd%res_wall(:)%position (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d_mhd%res_wall(:)%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d_mhd%res_wall(:)%position%z (vecflt_type) (7.9.8.1.18)
holes (4397)	wall%wall2d_mhd%res_wall(:)%holes (holes) (7.9.8.1.262)
n_holes (4365)	wall%wall2d_mhd%res_wall(:)%holes%n_holes (integer) (7.9.8.1.3)
coordinates (4365)	wall%wall2d_mhd%res_wall(:)%holes%coordinates (coordinates) (7.9.8.1.130)
theta (4233)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%theta (vecflt_type) (7.9.8.1.18)
phi (4233)	wall%wall2d_mhd%res_wall(:)%holes%coordinates%phi (vecflt_type) (7.9.8.1.18)
width (4365)	wall%wall2d_mhd%res_wall(:)%holes%width (width) (7.9.8.1.535)
dtheta (4638)	wall%wall2d_mhd%res_wall(:)%holes%width%dtheta (vecflt_type) (7.9.8.1.18)
phi (4638)	wall%wall2d_mhd%res_wall(:)%holes%width%phi (vecflt_type) (7.9.8.1.18)
eta (4365)	wall%wall2d_mhd%res_wall(:)%holes%eta (vecflt_type) (7.9.8.1.18)
ideal_wall (4613)	wall%wall2d_mhd%ideal_wall (mhd_ideal_wall2d) (7.9.8.1.291)
walltype (4394)	wall%wall2d_mhd%ideal_wall%walltype (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d_mhd%ideal_wall%walltype%id (string) (7.9.8.1.4)
flag (4366)	wall%wall2d_mhd%ideal_wall%walltype%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d_mhd%ideal_wall%walltype%description (string) (7.9.8.1.4)
position (4394)	wall%wall2d_mhd%ideal_wall%position (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d_mhd%ideal_wall%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d_mhd%ideal_wall%position%z (vecflt_type) (7.9.8.1.18)
wall2d (4176)	wall%wall2d(:) (wall2d) (7.9.8.1.509)
wall_id (4612)	wall%wall2d(:)%wall_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d(:)%wall_id%id (string) (7.9.8.1.4)
flag (4366)	wall%wall2d(:)%wall_id%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d(:)%wall_id%description (string) (7.9.8.1.4)
limiter (4612)	wall%wall2d(:)%limiter (wall_limiter) (7.9.8.1.514)
limiter_id (4617)	wall%wall2d(:)%limiter%limiter_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d(:)%limiter%limiter_id%id (string) (7.9.8.1.4)

flag (4366)	wall%wall2d(:)%limiter%limiter_id%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d(:)%limiter%limiter_id%description (string) (7.9.8.1.4)
limiter_unit (4617)	wall%wall2d(:)%limiter%limiter_unit(:) (limiter_unit) (7.9.8.1.280)
name (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%name (string) (7.9.8.1.4)
closed (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%closed (string) (7.9.8.1.4)
position (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%position (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d(:)%limiter%limiter_unit(:)%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d(:)%limiter%limiter_unit(:)%position%z (vecflt_type) (7.9.8.1.18)
eta (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%eta (float) (7.9.8.1.2)
delta (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%delta (float) (7.9.8.1.2)
permeability (4383)	wall%wall2d(:)%limiter%limiter_unit(:)%permeability (float) (7.9.8.1.2)
vessel (4612)	wall%wall2d(:)%vessel (wall_vessel) (7.9.8.1.519)
vessel_id (4622)	wall%wall2d(:)%vessel%vessel_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d(:)%vessel%vessel_id%id (string) (7.9.8.1.4)
flag (4366)	wall%wall2d(:)%vessel%vessel_id%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d(:)%vessel%vessel_id%description (string) (7.9.8.1.4)
vessel_unit (4622)	wall%wall2d(:)%vessel%vessel_unit(:) (wall_vessel_unit) (7.9.8.1.521)
annular (4624)	wall%wall2d(:)%vessel%vessel_unit(:)%annular (wall_vessel_annular) (7.9.8.1.520)
name (4623)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%name (string) (7.9.8.1.4)
inside (4623)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%inside%z (vecflt_type) (7.9.8.1.18)
outside (4623)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%outside%z (vecflt_type) (7.9.8.1.18)
eta (4623)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%eta (float) (7.9.8.1.2)
permeability (4623)	wall%wall2d(:)%vessel%vessel_unit(:)%annular%permeability (float) (7.9.8.1.2)
blocks (4624)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks (wall_blocks) (7.9.8.1.512)
blocks_unit (4615)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:) (wall_blocks_unit) (7.9.8.1.513)
name (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%name (string) (7.9.8.1.4)
position (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position (rz1D) (7.9.8.1.387)
r (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%r (vecflt_type) (7.9.8.1.18)
z (4490)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%position%z (vecflt_type) (7.9.8.1.18)
eta (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%eta (float) (7.9.8.1.2)
permeability (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%permeability (float) (7.9.8.1.2)
j_phi (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%j_phi (float) (7.9.8.1.2)
resistance (4616)	wall%wall2d(:)%vessel%vessel_unit(:)%blocks%blocks_unit(:)%resistance (float) (7.9.8.1.2)
radial_build (4624)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build (wall_wall2d_vessel_radial_build) (7.9.8.1.524)
r1_inb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_inb (float) (7.9.8.1.2)
r2_inb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_inb (float) (7.9.8.1.2)
r1_outb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r1_outb (float) (7.9.8.1.2)
r2_outb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%r2_outb (float) (7.9.8.1.2)
raddim (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%raddim (float) (7.9.8.1.2)
nmat (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%nmat (float) (7.9.8.1.2)
composition (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%composition (vecflt_type) (7.9.8.1.18)
pow_dens_inb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_inb (float) (7.9.8.1.2)
pow_dens_outb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%pow_dens_outb (float) (7.9.8.1.2)
fn_flux_inb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_inb (float) (7.9.8.1.2)
fn_flux_outb (4627)	wall%wall2d(:)%vessel%vessel_unit(:)%radial_build%fn_flux_outb (float) (7.9.8.1.2)
plasma (4612)	wall%wall2d(:)%plasma(:) (plasmaComplexType) (7.9.8.1.359)
species (4462)	wall%wall2d(:)%plasma(:)%species (vecint_type) (7.9.8.1.19)
flux (4462)	wall%wall2d(:)%plasma(:)%flux (matflt_type) (7.9.8.1.15)
b (4462)	wall%wall2d(:)%plasma(:)%b (matflt_type) (7.9.8.1.15)
energy (4462)	wall%wall2d(:)%plasma(:)%energy (matflt_type) (7.9.8.1.15)
wall_state (4612)	wall%wall2d(:)%wall_state(:) (wall_unitsComplexType) (7.9.8.1.517)
wall_type (4620)	wall%wall2d(:)%wall_state(:)%wall_type (integer) (7.9.8.1.3)
n_depo_layer (4620)	wall%wall2d(:)%wall_state(:)%n_depo_layer (integer) (7.9.8.1.3)
layers (4620)	wall%wall2d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.8.1.518)
elements (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.8.1.19)

gases (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.8.1.19)
compounds (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.8.1.19)
density (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.8.1.15)
dx (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.8.1.15)
thickness (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.8.1.18)
roughness (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.8.1.7)
porosity (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.8.1.7)
dpa (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.8.1.15)
temperature (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.8.1.15)
element_frac (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.8.1.7)
chem_comp (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.8.1.7)
bulk_D (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.8.1.9)
surface_D (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.8.1.9)
bulk_solute (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.8.1.9)
surf_solute (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.8.1.9)
pore_content (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.8.1.7)
trap_type (4621)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.8.1.493)
trap_id (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.8.1.4)
flag (4366)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.8.1.4)
compound (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.8.1.3)
gas_species (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.8.1.3)
energy (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.8.1.2)
fill_factor (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.8.1.15)
density (4596)	wall%wall2d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.8.1.15)
eta (4620)	wall%wall2d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall2d(:)%wall_state(:)%eta%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall2d(:)%wall_state(:)%eta%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall2d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall2d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall2d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.8.1.7)
permeability (4620)	wall%wall2d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall2d(:)%wall_state(:)%permeability%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall2d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall2d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall2d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall2d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.8.1.7)
j (4620)	wall%wall2d(:)%wall_state(:)%j (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	wall%wall2d(:)%wall_state(:)%j%griduid (integer) (7.9.8.1.3)
label (4224)	wall%wall2d(:)%wall_state(:)%j%label (string) (7.9.8.1.4)
comp (4224)	wall%wall2d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall2d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall2d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall2d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall2d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall2d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	wall%wall2d(:)%wall_state(:)%j%align (vecint_type) (7.9.8.1.19)
alignid (4224)	wall%wall2d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	wall%wall2d(:)%wall_state(:)%j%basis (integer) (7.9.8.1.3)
wall3d (4176)	wall%wall3d(:) (wall3d) (7.9.8.1.511)
wall_id (4614)	wall%wall3d(:)%wall_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall3d(:)%wall_id%id (string) (7.9.8.1.4)
flag (4366)	wall%wall3d(:)%wall_id%flag (integer) (7.9.8.1.3)
description (4366)	wall%wall3d(:)%wall_id%description (string) (7.9.8.1.4)
grid (4614)	wall%wall3d(:)%grid (complexgrid) (7.9.8.1.110)
uid (4213)	wall%wall3d(:)%grid%uid (integer) (7.9.8.1.3)
id (4213)	wall%wall3d(:)%grid%id (string) (7.9.8.1.4)
spaces (4213)	wall%wall3d(:)%grid%spaces(:) (complexgrid_space) (7.9.8.1.119)
geotype (4222)	wall%wall3d(:)%grid%spaces(:)%geotype (vecint_type) (7.9.8.1.19)
geotypeid (4222)	wall%wall3d(:)%grid%spaces(:)%geotypeid (vecstring_type) (7.9.8.1.20)

coordtype (4222)	wall%wall3d(:)%grid%spaces(:)%coordtype (matint_type) (7.9.8.1.16)
objects (4222)	wall%wall3d(:)%grid%spaces(:)%objects(:) (objects) (7.9.8.1.328)
boundary (4431)	wall%wall3d(:)%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.8.1.16)
neighbour (4431)	wall%wall3d(:)%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.8.1.8)
geo (4431)	wall%wall3d(:)%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.8.1.9)
measure (4431)	wall%wall3d(:)%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.8.1.15)
xpoints (4222)	wall%wall3d(:)%grid%spaces(:)%xpoints (vecint_type) (7.9.8.1.19)
subgrids (4213)	wall%wall3d(:)%grid%subgrids(:) (complexgrid_subgrid) (7.9.8.1.120)
id (4223)	wall%wall3d(:)%grid%subgrids(:)%id (string) (7.9.8.1.4)
list (4223)	wall%wall3d(:)%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.8.1.114)
cls (4217)	wall%wall3d(:)%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.8.1.19)
indset (4217)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.8.1.112)
range (4215)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.8.1.19)
ind (4215)	wall%wall3d(:)%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.8.1.19)
ind (4217)	wall%wall3d(:)%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.8.1.16)
metric (4213)	wall%wall3d(:)%grid%metric (complexgrid_metric) (7.9.8.1.113)
measure (4216)	wall%wall3d(:)%grid%metric%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
g11 (4216)	wall%wall3d(:)%grid%metric%g11(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g11(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g11(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g11(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g11(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.8.1.7)
g12 (4216)	wall%wall3d(:)%grid%metric%g12(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g12(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g12(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g12(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g12(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.8.1.7)
g13 (4216)	wall%wall3d(:)%grid%metric%g13(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g13(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g13(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g13(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g13(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.8.1.7)
g22 (4216)	wall%wall3d(:)%grid%metric%g22(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g22(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g22(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g22(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g22(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.8.1.7)
g23 (4216)	wall%wall3d(:)%grid%metric%g23(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g23(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g23(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g23(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g23(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.8.1.7)
g33 (4216)	wall%wall3d(:)%grid%metric%g33(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%g33(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%g33(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%metric%g33(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%g33(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.8.1.7)
jacobian (4216)	wall%wall3d(:)%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%metric%jacobian(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%metric%jacobian(:)%subgrid (integer) (7.9.8.1.3)

scalar (4218)	wall%wall3d(:)%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%metric%jacobian(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.8.1.7)
geo (4213)	wall%wall3d(:)%grid%geo(:) (complexgrid_geo_global) (7.9.8.1.111)
geotype (4214)	wall%wall3d(:)%grid%geo(:)%geotype (integer) (7.9.8.1.3)
geotypeid (4214)	wall%wall3d(:)%grid%geo(:)%geotypeid (string) (7.9.8.1.4)
coordtype (4214)	wall%wall3d(:)%grid%geo(:)%coordtype (vecint_type) (7.9.8.1.19)
geo_matrix (4214)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.8.1.7)
measure (4214)	wall%wall3d(:)%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%geo(:)%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%geo(:)%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
bases (4213)	wall%wall3d(:)%grid%bases(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	wall%wall3d(:)%grid%bases(:)%griduid (integer) (7.9.8.1.3)
label (4224)	wall%wall3d(:)%grid%bases(:)%label (string) (7.9.8.1.4)
comp (4224)	wall%wall3d(:)%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%grid%bases(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%grid%bases(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	wall%wall3d(:)%grid%bases(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	wall%wall3d(:)%grid%bases(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	wall%wall3d(:)%grid%bases(:)%basis (integer) (7.9.8.1.3)
plasma (4614)	wall%wall3d(:)%plasma(:) (plasmaComplexType) (7.9.8.1.359)
species (4462)	wall%wall3d(:)%plasma(:)%species (vecint_type) (7.9.8.1.19)
flux (4462)	wall%wall3d(:)%plasma(:)%flux (matflt_type) (7.9.8.1.15)
b (4462)	wall%wall3d(:)%plasma(:)%b (matflt_type) (7.9.8.1.15)
energy (4462)	wall%wall3d(:)%plasma(:)%energy (matflt_type) (7.9.8.1.15)
wall_state (4614)	wall%wall3d(:)%wall_state(:) (wall_unitsComplexType) (7.9.8.1.517)
wall_type (4620)	wall%wall3d(:)%wall_state(:)%wall_type (integer) (7.9.8.1.3)
n_depo_layer (4620)	wall%wall3d(:)%wall_state(:)%n_depo_layer (integer) (7.9.8.1.3)
layers (4620)	wall%wall3d(:)%wall_state(:)%layers(:) (wall_unitsComplexType_layers) (7.9.8.1.518)
elements (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%elements (vecint_type) (7.9.8.1.19)
gases (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%gases (vecint_type) (7.9.8.1.19)
compounds (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%compounds (vecint_type) (7.9.8.1.19)
density (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%density (matflt_type) (7.9.8.1.15)
dx (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%dx (matflt_type) (7.9.8.1.15)
thickness (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%thickness (vecflt_type) (7.9.8.1.18)
roughness (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%roughness (array3dflt_type) (7.9.8.1.7)
porosity (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%porosity (array3dflt_type) (7.9.8.1.7)
dpa (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%dpa (matflt_type) (7.9.8.1.15)
temperature (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%temperature (matflt_type) (7.9.8.1.15)
element_frac (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%element_frac (array3dflt_type) (7.9.8.1.7)
chem_comp (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%chem_comp (array3dflt_type) (7.9.8.1.7)
bulk_D (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_D (array4dflt_type) (7.9.8.1.9)
surface_D (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%surface_D (array4dflt_type) (7.9.8.1.9)
bulk_solute (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%bulk_solute (array4dflt_type) (7.9.8.1.9)
surf_solute (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%surf_solute (array4dflt_type) (7.9.8.1.9)
pore_content (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%pore_content (array3dflt_type) (7.9.8.1.7)
trap_type (4621)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:) (trap_type) (7.9.8.1.493)
trap_id (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id (identifier) (7.9.8.1.263)
id (4366)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%id (string) (7.9.8.1.4)
flag (4366)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%flag (integer) (7.9.8.1.3)

description (4366)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%trap_id%description (string) (7.9.8.1.4)
compound (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%compound (integer) (7.9.8.1.3)
gas_species (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%gas_species (integer) (7.9.8.1.3)
energy (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%energy (float) (7.9.8.1.2)
fill_factor (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%fill_factor (matflt_type) (7.9.8.1.15)
density (4596)	wall%wall3d(:)%wall_state(:)%layers(:)%trap_type(:)%density (matflt_type) (7.9.8.1.15)
eta (4620)	wall%wall3d(:)%wall_state(:)%eta (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%wall_state(:)%eta%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%wall_state(:)%eta%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%wall_state(:)%eta%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%wall_state(:)%eta%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%wall_state(:)%eta%matrix (array3dflt_type) (7.9.8.1.7)
permeability (4620)	wall%wall3d(:)%wall_state(:)%permeability (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%wall_state(:)%permeability%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%wall_state(:)%permeability%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%wall_state(:)%permeability%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%wall_state(:)%permeability%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%wall_state(:)%permeability%matrix (array3dflt_type) (7.9.8.1.7)
j (4620)	wall%wall3d(:)%wall_state(:)%j (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	wall%wall3d(:)%wall_state(:)%j%griduid (integer) (7.9.8.1.3)
label (4224)	wall%wall3d(:)%wall_state(:)%j%label (string) (7.9.8.1.4)
comp (4224)	wall%wall3d(:)%wall_state(:)%j%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	wall%wall3d(:)%wall_state(:)%j%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	wall%wall3d(:)%wall_state(:)%j%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	wall%wall3d(:)%wall_state(:)%j%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	wall%wall3d(:)%wall_state(:)%j%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	wall%wall3d(:)%wall_state(:)%j%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	wall%wall3d(:)%wall_state(:)%j%align (vecint_type) (7.9.8.1.19)
alignid (4224)	wall%wall3d(:)%wall_state(:)%j%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	wall%wall3d(:)%wall_state(:)%j%basis (integer) (7.9.8.1.3)
basis_index (4614)	wall%wall3d(:)%basis_index (integer) (7.9.8.1.3)
wall_types (4176)	wall%wall_types(:) (wall_types) (7.9.8.1.515)
label (4618)	wall%wall_types(:)%label (string) (7.9.8.1.4)
layers (4618)	wall%wall_types(:)%layers(:) (wall_types_layers) (7.9.8.1.516)
thickness (4619)	wall%wall_types(:)%layers(:)%thickness (float) (7.9.8.1.2)
chem_comp (4619)	wall%wall_types(:)%layers(:)%chem_comp (vecflt_type) (7.9.8.1.18)
compounds (4176)	wall%compounds(:) (compound_desc) (7.9.8.1.128)
label (4231)	wall%compounds(:)%label (string) (7.9.8.1.4)
stochiometry (4231)	wall%compounds(:)%stochiometry (vecflt_type) (7.9.8.1.18)
density (4231)	wall%compounds(:)%density (float) (7.9.8.1.2)
heat_cap (4231)	wall%compounds(:)%heat_cap (float) (7.9.8.1.2)
heat_cond (4231)	wall%compounds(:)%heat_cond (vecflt_type) (7.9.8.1.18)
surf_recrate (4231)	wall%compounds(:)%surf_recrate (matflt_type) (7.9.8.1.15)
elements (4176)	wall%elements(:) (element_desc) (7.9.8.1.214)
nucindex (4317)	wall%elements(:)%nucindex (integer) (7.9.8.1.3)
label (4317)	wall%elements(:)%label (string) (7.9.8.1.4)
zn (4317)	wall%elements(:)%zn (float) (7.9.8.1.2)
amn (4317)	wall%elements(:)%amn (float) (7.9.8.1.2)
compositions (4176)	wall%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	wall%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	wall%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	wall%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	wall%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	wall%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	wall%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	wall%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	wall%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	wall%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	wall%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	wall%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	wall%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)

nzimp (4368)	wall%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	wall%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	wall%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	wall%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	wall%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	wall%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	wall%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	wall%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	wall%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	wall%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	wall%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	wall%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	wall%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	wall%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	wall%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	wall%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	wall%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	wall%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	wall%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	wall%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	wall%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	wall%compositions%signature%description (string) (7.9.8.1.4)
codeparam (4176)	wall%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	wall%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	wall%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	wall%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	wall%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	wall%codeparam%output_flag (integer) (7.9.8.1.3)
time (4176)	wall%time (float) (7.9.8.1.2)

7.9.8.2.52 waves

datainfo (4177)	waves%datainfo (datainfo) (7.9.8.1.162)
dataprovider (4265)	waves%datainfo%dataprovider (string) (7.9.8.1.4)
putdate (4265)	waves%datainfo%putdate (string) (7.9.8.1.4)
source (4265)	waves%datainfo%source (string) (7.9.8.1.4)
comment (4265)	waves%datainfo%comment (string) (7.9.8.1.4)
cocos (4265)	waves%datainfo%cocos (integer) (7.9.8.1.3)
id (4265)	waves%datainfo%id (integer) (7.9.8.1.3)
isref (4265)	waves%datainfo%isref (integer) (7.9.8.1.3)
whatref (4265)	waves%datainfo%whatref (whatref) (7.9.8.1.534)
user (4637)	waves%datainfo%whatref%user (string) (7.9.8.1.4)
machine (4637)	waves%datainfo%whatref%machine (string) (7.9.8.1.4)
shot (4637)	waves%datainfo%whatref%shot (integer) (7.9.8.1.3)
run (4637)	waves%datainfo%whatref%run (integer) (7.9.8.1.3)
occurrence (4637)	waves%datainfo%whatref%occurrence (integer) (7.9.8.1.3)
putinfo (4265)	waves%datainfo%putinfo (putinfo) (7.9.8.1.370)
putmethod (4473)	waves%datainfo%putinfo%putmethod (string) (7.9.8.1.4)
putaccess (4473)	waves%datainfo%putinfo%putaccess (string) (7.9.8.1.4)
putlocation (4473)	waves%datainfo%putinfo%putlocation (string) (7.9.8.1.4)
rights (4473)	waves%datainfo%putinfo%rights (string) (7.9.8.1.4)
coherentwave (4177)	waves%coherentwave(:) (coherentwave) (7.9.8.1.107)
wave_id (4210)	waves%coherentwave(:)%wave_id (enum_instance) (7.9.8.1.216)
type (4319)	waves%coherentwave(:)%wave_id%type (identifier) (7.9.8.1.263)
id (4366)	waves%coherentwave(:)%wave_id%type%id (string) (7.9.8.1.4)
flag (4366)	waves%coherentwave(:)%wave_id%type%flag (integer) (7.9.8.1.3)
description (4366)	waves%coherentwave(:)%wave_id%type%description (string) (7.9.8.1.4)
name (4319)	waves%coherentwave(:)%wave_id%name (string) (7.9.8.1.4)
index (4319)	waves%coherentwave(:)%wave_id%index (integer) (7.9.8.1.3)
composition (4210)	waves%coherentwave(:)%composition (composition) (7.9.8.1.123)

amn (4226)	waves%coherentwave(:)%composition%amn (vecflt_type) (7.9.8.1.18)
zn (4226)	waves%coherentwave(:)%composition%zn (vecflt_type) (7.9.8.1.18)
zion (4226)	waves%coherentwave(:)%composition%zion (vecflt_type) (7.9.8.1.18)
imp_flag (4226)	waves%coherentwave(:)%composition%imp_flag (vecint_type) (7.9.8.1.19)
label (4226)	waves%coherentwave(:)%composition%label (vecstring_type) (7.9.8.1.20)
compositions (4210)	waves%coherentwave(:)%compositions (compositions_type) (7.9.8.1.127)
nuclei (4230)	waves%coherentwave(:)%compositions%nuclei(:) (nuclei) (7.9.8.1.327)
zn (4430)	waves%coherentwave(:)%compositions%nuclei(:)%zn (float) (7.9.8.1.2)
amn (4430)	waves%coherentwave(:)%compositions%nuclei(:)%amn (float) (7.9.8.1.2)
label (4430)	waves%coherentwave(:)%compositions%nuclei(:)%label (string) (7.9.8.1.4)
ions (4230)	waves%coherentwave(:)%compositions%ions(:) (ions) (7.9.8.1.268)
nucindex (4371)	waves%coherentwave(:)%compositions%ions(:)%nucindex (integer) (7.9.8.1.3)
zion (4371)	waves%coherentwave(:)%compositions%ions(:)%zion (float) (7.9.8.1.2)
imp_flag (4371)	waves%coherentwave(:)%compositions%ions(:)%imp_flag (integer) (7.9.8.1.3)
label (4371)	waves%coherentwave(:)%compositions%ions(:)%label (string) (7.9.8.1.4)
impurities (4230)	waves%coherentwave(:)%compositions%impurities(:) (impurities) (7.9.8.1.265)
nucindex (4368)	waves%coherentwave(:)%compositions%impurities(:)%nucindex (integer) (7.9.8.1.3)
i_ion (4368)	waves%coherentwave(:)%compositions%impurities(:)%i_ion (integer) (7.9.8.1.3)
nzimp (4368)	waves%coherentwave(:)%compositions%impurities(:)%nzimp (integer) (7.9.8.1.3)
zmin (4368)	waves%coherentwave(:)%compositions%impurities(:)%zmin (vecflt_type) (7.9.8.1.18)
zmax (4368)	waves%coherentwave(:)%compositions%impurities(:)%zmax (vecflt_type) (7.9.8.1.18)
label (4368)	waves%coherentwave(:)%compositions%impurities(:)%label (vecstring_type) (7.9.8.1.20)
neutralscomp (4230)	waves%coherentwave(:)%compositions%neutralscomp(:) (composition_neutralscomp) (7.9.8.1.126)
neutcomp (4229)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:) (composition_neutrals_neutcomp) (7.9.8.1.125)
nucindex (4228)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%nucindex (integer) (7.9.8.1.3)
multiplicity (4228)	waves%coherentwave(:)%compositions%neutralscomp(:)%neutcomp(:)%multiplicity (integer) (7.9.8.1.3)
type (4229)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:) (identifier) (7.9.8.1.263)
id (4366)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%id (string) (7.9.8.1.4)
flag (4366)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%flag (integer) (7.9.8.1.3)
description (4366)	waves%coherentwave(:)%compositions%neutralscomp(:)%type(:)%description (string) (7.9.8.1.4)
label (4229)	waves%coherentwave(:)%compositions%neutralscomp(:)%label (string) (7.9.8.1.4)
edgespecies (4230)	waves%coherentwave(:)%compositions%edgespecies(:) (edgespecies) (7.9.8.1.213)
nucindex (4316)	waves%coherentwave(:)%compositions%edgespecies(:)%nucindex (integer) (7.9.8.1.3)
zmin (4316)	waves%coherentwave(:)%compositions%edgespecies(:)%zmin (float) (7.9.8.1.2)
zmax (4316)	waves%coherentwave(:)%compositions%edgespecies(:)%zmax (float) (7.9.8.1.2)
label (4316)	waves%coherentwave(:)%compositions%edgespecies(:)%label (string) (7.9.8.1.4)
signature (4230)	waves%coherentwave(:)%compositions%signature (identifier) (7.9.8.1.263)
id (4366)	waves%coherentwave(:)%compositions%signature%id (string) (7.9.8.1.4)
flag (4366)	waves%coherentwave(:)%compositions%signature%flag (integer) (7.9.8.1.3)
description (4366)	waves%coherentwave(:)%compositions%signature%description (string) (7.9.8.1.4)
global_param (4210)	waves%coherentwave(:)%global_param (waves_global_param) (7.9.8.1.526)
name (4629)	waves%coherentwave(:)%global_param%name (string) (7.9.8.1.4)
type (4629)	waves%coherentwave(:)%global_param%type (string) (7.9.8.1.4)
f_assumption (4629)	waves%coherentwave(:)%global_param%f_assumption (vecint_type) (7.9.8.1.19)
code_type (4629)	waves%coherentwave(:)%global_param%code_type (integer) (7.9.8.1.3)
frequency (4629)	waves%coherentwave(:)%global_param%frequency (float) (7.9.8.1.2)
ntor (4629)	waves%coherentwave(:)%global_param%ntor (vecint_type) (7.9.8.1.19)
power_tot (4629)	waves%coherentwave(:)%global_param%power_tot (float) (7.9.8.1.2)
p_frac_ntor (4629)	waves%coherentwave(:)%global_param%p_frac_ntor (vecflt_type) (7.9.8.1.18)
pow_e (4629)	waves%coherentwave(:)%global_param%pow_e (float) (7.9.8.1.2)
pow_i (4629)	waves%coherentwave(:)%global_param%pow_i (vecflt_type) (7.9.8.1.18)
pow_z (4629)	waves%coherentwave(:)%global_param%pow_z (matflt_type) (7.9.8.1.15)
pow_fe (4629)	waves%coherentwave(:)%global_param%pow_fe (float) (7.9.8.1.2)
pow_fi (4629)	waves%coherentwave(:)%global_param%pow_fi (vecflt_type) (7.9.8.1.18)
pow_fz (4629)	waves%coherentwave(:)%global_param%pow_fz (matflt_type) (7.9.8.1.15)
pow_ntor_e (4629)	waves%coherentwave(:)%global_param%pow_ntor_e (vecflt_type) (7.9.8.1.18)
pow_ntor_i (4629)	waves%coherentwave(:)%global_param%pow_ntor_i (matflt_type) (7.9.8.1.15)
pow_ntor_z (4629)	waves%coherentwave(:)%global_param%pow_ntor_z (array3dflt_type) (7.9.8.1.7)

pow_ntor_fe (4629)	waves%coherentwave(:)%global_param%pow_ntor_fe (vecflt_type) (7.9.8.1.18)
pow_ntor_fi (4629)	waves%coherentwave(:)%global_param%pow_ntor_fi (matflt_type) (7.9.8.1.15)
pow_ntor_fz (4629)	waves%coherentwave(:)%global_param%pow_ntor_fz (array3dflt_type) (7.9.8.1.7)
cur_tor (4629)	waves%coherentwave(:)%global_param%cur_tor (float) (7.9.8.1.2)
cur_tor_ntor (4629)	waves%coherentwave(:)%global_param%cur_tor_ntor (vecflt_type) (7.9.8.1.18)
mag_axis (4629)	waves%coherentwave(:)%global_param%mag_axis (rz0D) (7.9.8.1.386)
r (4489)	waves%coherentwave(:)%global_param%mag_axis%r (float) (7.9.8.1.2)
z (4489)	waves%coherentwave(:)%global_param%mag_axis%z (float) (7.9.8.1.2)
toroid_field (4629)	waves%coherentwave(:)%global_param%toroid_field (b0r0) (7.9.8.1.82)
r0 (4185)	waves%coherentwave(:)%global_param%toroid_field%r0 (float) (7.9.8.1.2)
b0 (4185)	waves%coherentwave(:)%global_param%toroid_field%b0 (float) (7.9.8.1.2)
grid_1d (4210)	waves%coherentwave(:)%grid_1d (waves_grid_1d) (7.9.8.1.527)
rho_tor (4630)	waves%coherentwave(:)%grid_1d%rho_tor (vecflt_type) (7.9.8.1.18)
rho_tor_norm (4630)	waves%coherentwave(:)%grid_1d%rho_tor_norm (vecflt_type) (7.9.8.1.18)
psi (4630)	waves%coherentwave(:)%grid_1d%psi (vecflt_type) (7.9.8.1.18)
volume (4630)	waves%coherentwave(:)%grid_1d%volume (vecflt_type) (7.9.8.1.18)
area (4630)	waves%coherentwave(:)%grid_1d%area (vecflt_type) (7.9.8.1.18)
grid_2d (4210)	waves%coherentwave(:)%grid_2d (waves_grid_2d) (7.9.8.1.528)
grid_type (4631)	waves%coherentwave(:)%grid_2d%grid_type (integer) (7.9.8.1.3)
rho_tor_norm (4631)	waves%coherentwave(:)%grid_2d%rho_tor_norm (matflt_type) (7.9.8.1.15)
rho_tor (4631)	waves%coherentwave(:)%grid_2d%rho_tor (matflt_type) (7.9.8.1.15)
psi (4631)	waves%coherentwave(:)%grid_2d%psi (matflt_type) (7.9.8.1.15)
theta (4631)	waves%coherentwave(:)%grid_2d%theta (matflt_type) (7.9.8.1.15)
r (4631)	waves%coherentwave(:)%grid_2d%r (matflt_type) (7.9.8.1.15)
z (4631)	waves%coherentwave(:)%grid_2d%z (matflt_type) (7.9.8.1.15)
theta_info (4631)	waves%coherentwave(:)%grid_2d%theta_info (theta_info) (7.9.8.1.485)
angl_type (4588)	waves%coherentwave(:)%grid_2d%theta_info%angl_type (integer) (7.9.8.1.3)
th2th_pol (4588)	waves%coherentwave(:)%grid_2d%theta_info%th2th_pol (matflt_type) (7.9.8.1.15)
profiles_1d (4210)	waves%coherentwave(:)%profiles_1d (waves_profiles_1d) (7.9.8.1.529)
powd_tot (4632)	waves%coherentwave(:)%profiles_1d%powd_tot (vecflt_type) (7.9.8.1.18)
powd_e (4632)	waves%coherentwave(:)%profiles_1d%powd_e (vecflt_type) (7.9.8.1.18)
powd_i (4632)	waves%coherentwave(:)%profiles_1d%powd_i (matflt_type) (7.9.8.1.15)
powd_z (4632)	waves%coherentwave(:)%profiles_1d%powd_z (array3dflt_type) (7.9.8.1.7)
powd_fe (4632)	waves%coherentwave(:)%profiles_1d%powd_fe (vecflt_type) (7.9.8.1.18)
powd_fi (4632)	waves%coherentwave(:)%profiles_1d%powd_fi (matflt_type) (7.9.8.1.15)
powd_fz (4632)	waves%coherentwave(:)%profiles_1d%powd_fz (array3dflt_type) (7.9.8.1.7)
powd_ntor (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor (matflt_type) (7.9.8.1.15)
powd_ntor_e (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_e (matflt_type) (7.9.8.1.15)
powd_ntor_i (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_i (array3dflt_type) (7.9.8.1.7)
powd_ntor_z (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_z (array4dflt_type) (7.9.8.1.9)
powd_ntor_fe (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_fe (matflt_type) (7.9.8.1.15)
powd_ntor_fi (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_fi (array3dflt_type) (7.9.8.1.7)
powd_ntor_fz (4632)	waves%coherentwave(:)%profiles_1d%powd_ntor_fz (array4dflt_type) (7.9.8.1.9)
curd_tor (4632)	waves%coherentwave(:)%profiles_1d%curd_tor (vecflt_type) (7.9.8.1.18)
curd_torntor (4632)	waves%coherentwave(:)%profiles_1d%curd_torntor (matflt_type) (7.9.8.1.15)
pow_tot (4632)	waves%coherentwave(:)%profiles_1d%pow_tot (vecflt_type) (7.9.8.1.18)
pow_e (4632)	waves%coherentwave(:)%profiles_1d%pow_e (vecflt_type) (7.9.8.1.18)
pow_i (4632)	waves%coherentwave(:)%profiles_1d%pow_i (matflt_type) (7.9.8.1.15)
pow_z (4632)	waves%coherentwave(:)%profiles_1d%pow_z (array3dflt_type) (7.9.8.1.7)
pow_fe (4632)	waves%coherentwave(:)%profiles_1d%pow_fe (vecflt_type) (7.9.8.1.18)
pow_fi (4632)	waves%coherentwave(:)%profiles_1d%pow_fi (matflt_type) (7.9.8.1.15)
pow_fz (4632)	waves%coherentwave(:)%profiles_1d%pow_fz (array3dflt_type) (7.9.8.1.7)
pow_ntor (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor (matflt_type) (7.9.8.1.15)
pow_ntor_e (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_e (matflt_type) (7.9.8.1.15)
pow_ntor_i (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_i (array3dflt_type) (7.9.8.1.7)
pow_ntor_z (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_z (array3dflt_type) (7.9.8.1.7)
pow_ntor_fe (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_fe (matflt_type) (7.9.8.1.15)
pow_ntor_fi (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_fi (array3dflt_type) (7.9.8.1.7)
pow_ntor_fz (4632)	waves%coherentwave(:)%profiles_1d%pow_ntor_fz (array3dflt_type) (7.9.8.1.7)
curd_par (4632)	waves%coherentwave(:)%profiles_1d%curd_par (vecflt_type) (7.9.8.1.18)
curd_parntor (4632)	waves%coherentwave(:)%profiles_1d%curd_parntor (matflt_type) (7.9.8.1.15)

cur_tor (4632)	waves%coherentwave(:)%profiles_1d%cur_tor (vecflt_type) (7.9.8.1.18)
cur_tor_ntor (4632)	waves%coherentwave(:)%profiles_1d%cur_tor_ntor (matflt_type) (7.9.8.1.15)
e_plus_ave (4632)	waves%coherentwave(:)%profiles_1d%e_plus_ave (matflt_type) (7.9.8.1.15)
e_minus_ave (4632)	waves%coherentwave(:)%profiles_1d%e_minus_ave (matflt_type) (7.9.8.1.15)
e_para_ave (4632)	waves%coherentwave(:)%profiles_1d%e_para_ave (matflt_type) (7.9.8.1.15)
k_perp_ave (4632)	waves%coherentwave(:)%profiles_1d%k_perp_ave (matflt_type) (7.9.8.1.15)
profiles_2d (4210)	waves%coherentwave(:)%profiles_2d (waves_profiles_2d) (7.9.8.1.530)
powd_tot (4633)	waves%coherentwave(:)%profiles_2d%powd_tot (matflt_type) (7.9.8.1.15)
powd_e (4633)	waves%coherentwave(:)%profiles_2d%powd_e (matflt_type) (7.9.8.1.15)
powd_i (4633)	waves%coherentwave(:)%profiles_2d%powd_i (array3dflt_type) (7.9.8.1.7)
powd_z (4633)	waves%coherentwave(:)%profiles_2d%powd_z (array4dflt_type) (7.9.8.1.9)
powd_fe (4633)	waves%coherentwave(:)%profiles_2d%powd_fe (matflt_type) (7.9.8.1.15)
powd_fi (4633)	waves%coherentwave(:)%profiles_2d%powd_fi (array3dflt_type) (7.9.8.1.7)
powd_fz (4633)	waves%coherentwave(:)%profiles_2d%powd_fz (array4dflt_type) (7.9.8.1.9)
powd_ntor (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor (array3dflt_type) (7.9.8.1.7)
powd_ntor_e (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_e (array3dflt_type) (7.9.8.1.7)
powd_ntor_i (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_i (array4dflt_type) (7.9.8.1.9)
powd_ntor_z (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_z (array5dflt_type) (7.9.8.1.10)
powd_ntor_fe (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_fe (array3dflt_type) (7.9.8.1.7)
powd_ntor_fi (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_fi (array4dflt_type) (7.9.8.1.9)
powd_ntor_fz (4633)	waves%coherentwave(:)%profiles_2d%powd_ntor_fz (array5dflt_type) (7.9.8.1.10)
powd_iharm (4633)	waves%coherentwave(:)%profiles_2d%powd_iharm (array5dflt_type) (7.9.8.1.10)
beamtracing (4210)	waves%coherentwave(:)%beamtracing(:) (beamtracing) (7.9.8.1.89)
npoints (4192)	waves%coherentwave(:)%beamtracing(:)%npoints (integer) (7.9.8.1.3)
power (4192)	waves%coherentwave(:)%beamtracing(:)%power (float) (7.9.8.1.2)
dnpar (4192)	waves%coherentwave(:)%beamtracing(:)%dnpar (vecflt_type) (7.9.8.1.18)
length (4192)	waves%coherentwave(:)%beamtracing(:)%length (vecflt_type) (7.9.8.1.18)
position (4192)	waves%coherentwave(:)%beamtracing(:)%position (waves_rtposition) (7.9.8.1.531)
r (4634)	waves%coherentwave(:)%beamtracing(:)%position%r (vecflt_type) (7.9.8.1.18)
z (4634)	waves%coherentwave(:)%beamtracing(:)%position%z (vecflt_type) (7.9.8.1.18)
phi (4634)	waves%coherentwave(:)%beamtracing(:)%position%phi (vecflt_type) (7.9.8.1.18)
psi (4634)	waves%coherentwave(:)%beamtracing(:)%position%psi (vecflt_type) (7.9.8.1.18)
theta (4634)	waves%coherentwave(:)%beamtracing(:)%position%theta (vecflt_type) (7.9.8.1.18)
wavevector (4192)	waves%coherentwave(:)%beamtracing(:)%wavevector (waves_rtwavevector) (7.9.8.1.532)
kr (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%kr (vecflt_type) (7.9.8.1.18)
kz (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%kz (vecflt_type) (7.9.8.1.18)
kphi (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%kphi (vecflt_type) (7.9.8.1.18)
npar (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%npar (vecflt_type) (7.9.8.1.18)
nperp (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%nperp (vecflt_type) (7.9.8.1.18)
ntor (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%ntor (vecflt_type) (7.9.8.1.18)
var_ntor (4635)	waves%coherentwave(:)%beamtracing(:)%wavevector%var_ntor (integer) (7.9.8.1.3)
polarization (4192)	waves%coherentwave(:)%beamtracing(:)%polarization (polarization) (7.9.8.1.363)
epol_p_re (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_re (vecflt_type) (7.9.8.1.18)
epol_p_im (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_p_im (vecflt_type) (7.9.8.1.18)
epol_m_re (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_re (vecflt_type) (7.9.8.1.18)
epol_m_im (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_m_im (vecflt_type) (7.9.8.1.18)
epol_par_re (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_re (vecflt_type) (7.9.8.1.18)
epol_par_im (4466)	waves%coherentwave(:)%beamtracing(:)%polarization%epol_par_im (vecflt_type) (7.9.8.1.18)
powerflow (4192)	waves%coherentwave(:)%beamtracing(:)%powerflow (powerflow) (7.9.8.1.366)
phi_perp (4469)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_perp (vecflt_type) (7.9.8.1.18)
phi_par (4469)	waves%coherentwave(:)%beamtracing(:)%powerflow%phi_par (vecflt_type) (7.9.8.1.18)
power_e (4469)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_e (vecflt_type) (7.9.8.1.18)
power_i (4469)	waves%coherentwave(:)%beamtracing(:)%powerflow%power_i (matflt_type) (7.9.8.1.15)
fullwave (4210)	waves%coherentwave(:)%fullwave (fullwave) (7.9.8.1.237)
grid (4340)	waves%coherentwave(:)%fullwave%grid (complexgrid) (7.9.8.1.110)
uid (4213)	waves%coherentwave(:)%fullwave%grid%uid (integer) (7.9.8.1.3)
id (4213)	waves%coherentwave(:)%fullwave%grid%id (string) (7.9.8.1.4)
spaces (4213)	waves%coherentwave(:)%fullwave%grid%spaces(:) (complexgrid_space) (7.9.8.1.119)
geotype (4222)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotype (vecint_type) (7.9.8.1.19)
geotypeid (4222)	waves%coherentwave(:)%fullwave%grid%spaces(:)%geotypeid (vecstring_type) (7.9.8.1.20)
coordtype (4222)	waves%coherentwave(:)%fullwave%grid%spaces(:)%coordtype (matint_type) (7.9.8.1.16)

objects (4222)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:) (objects) (7.9.8.1.328)
boundary (4431)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%boundary (matint_type) (7.9.8.1.16)
neighbour (4431)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%neighbour (array3dint_type) (7.9.8.1.8)
geo (4431)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%geo (array4dflt_type) (7.9.8.1.9)
measure (4431)	waves%coherentwave(:)%fullwave%grid%spaces(:)%objects(:)%measure (matflt_type) (7.9.8.1.15)
xpoints (4222)	waves%coherentwave(:)%fullwave%grid%spaces(:)%xpoints (vecint_type) (7.9.8.1.19)
subgrids (4213)	waves%coherentwave(:)%fullwave%grid%subgrids(:) (complexgrid_subgrid) (7.9.8.1.120)
id (4223)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%id (string) (7.9.8.1.4)
list (4223)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:) (complexgrid_objectlist) (7.9.8.1.114)
cls (4217)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%cls (vecint_type) (7.9.8.1.19)
indset (4217)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:) (complexgrid_indexlist) (7.9.8.1.112)
range (4215)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%range (vecint_type) (7.9.8.1.19)
ind (4215)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%indset(:)%ind (vecint_type) (7.9.8.1.19)
ind (4217)	waves%coherentwave(:)%fullwave%grid%subgrids(:)%list(:)%ind (matint_type) (7.9.8.1.16)
metric (4213)	waves%coherentwave(:)%fullwave%grid%metric (complexgrid_metric) (7.9.8.1.113)
measure (4216)	waves%coherentwave(:)%fullwave%grid%metric%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
g11 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g11(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g11(:)%matrix (array3dflt_type) (7.9.8.1.7)
g12 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g12(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g12(:)%matrix (array3dflt_type) (7.9.8.1.7)
g13 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g13(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g13(:)%matrix (array3dflt_type) (7.9.8.1.7)
g22 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g22(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g22(:)%matrix (array3dflt_type) (7.9.8.1.7)
g23 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g23(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g23(:)%matrix (array3dflt_type) (7.9.8.1.7)
g33 (4216)	waves%coherentwave(:)%fullwave%grid%metric%g33(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%griduid (integer) (7.9.8.1.3)

subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%g33(:)%matrix (array3dflt_type) (7.9.8.1.7)
jacobian (4216)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%metric%jacobian(:)%matrix (array3dflt_type) (7.9.8.1.7)
geo (4213)	waves%coherentwave(:)%fullwave%grid%geo(:) (complexgrid_geo_global) (7.9.8.1.111)
geotype (4214)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotype (integer) (7.9.8.1.3)
geotypeid (4214)	waves%coherentwave(:)%fullwave%grid%geo(:)%geotypeid (string) (7.9.8.1.4)
coordtype (4214)	waves%coherentwave(:)%fullwave%grid%geo(:)%coordtype (vecint_type) (7.9.8.1.19)
geo_matrix (4214)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%geo_matrix(:)%matrix (array3dflt_type) (7.9.8.1.7)
measure (4214)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%geo(:)%measure(:)%matrix (array3dflt_type) (7.9.8.1.7)
bases (4213)	waves%coherentwave(:)%fullwave%grid%bases(:) (complexgrid_vector) (7.9.8.1.121)
griduid (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%griduid (integer) (7.9.8.1.3)
label (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%label (string) (7.9.8.1.4)
comp (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:) (complexgrid_scalar) (7.9.8.1.115)
griduid (4218)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%griduid (integer) (7.9.8.1.3)
subgrid (4218)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%subgrid (integer) (7.9.8.1.3)
scalar (4218)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%scalar (vecflt_type) (7.9.8.1.18)
vector (4218)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%vector (matflt_type) (7.9.8.1.15)
matrix (4218)	waves%coherentwave(:)%fullwave%grid%bases(:)%comp(:)%matrix (array3dflt_type) (7.9.8.1.7)
align (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%align (vecint_type) (7.9.8.1.19)
alignid (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%alignid (vecstring_type) (7.9.8.1.20)
basis (4224)	waves%coherentwave(:)%fullwave%grid%bases(:)%basis (integer) (7.9.8.1.3)
e_components (4340)	waves%coherentwave(:)%fullwave%e_components (e_components) (7.9.8.1.201)
e_plus (4304)	waves%coherentwave(:)%fullwave%e_components%e_plus (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%e_plus%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%e_plus%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%e_plus%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%e_plus%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%e_plus%matrix (array3dcplx_type) (7.9.8.1.6)
e_minus (4304)	waves%coherentwave(:)%fullwave%e_components%e_minus (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%e_minus%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%e_minus%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%e_minus%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%e_minus%vector (matcplx_type) (7.9.8.1.14)

matrix (4219)	waves%coherentwave(:)%fullwave%e_components%e_minus%matrix (array3dcplx_type) (7.9.8.1.6)
e_para (4304)	waves%coherentwave(:)%fullwave%e_components%e_para (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%e_para%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%e_para%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%e_para%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%e_para%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%e_para%matrix (array3dcplx_type) (7.9.8.1.6)
e_norm (4304)	waves%coherentwave(:)%fullwave%e_components%e_norm (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%e_norm%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%e_norm%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%e_norm%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%e_norm%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%e_norm%matrix (array3dcplx_type) (7.9.8.1.6)
e_binorm (4304)	waves%coherentwave(:)%fullwave%e_components%e_binorm (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%e_binorm%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%e_binorm%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%e_binorm%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%e_binorm%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%e_binorm%matrix (array3dcplx_type) (7.9.8.1.6)
b_norm (4304)	waves%coherentwave(:)%fullwave%e_components%b_norm (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%b_norm%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%b_norm%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%b_norm%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%b_norm%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%b_norm%matrix (array3dcplx_type) (7.9.8.1.6)
b_binorm (4304)	waves%coherentwave(:)%fullwave%e_components%b_binorm (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%b_binorm%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%b_binorm%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%b_binorm%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%b_binorm%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%b_binorm%matrix (array3dcplx_type) (7.9.8.1.6)
b_para (4304)	waves%coherentwave(:)%fullwave%e_components%b_para (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%b_para%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%b_para%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%b_para%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%b_para%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%b_para%matrix (array3dcplx_type) (7.9.8.1.6)
k_perp (4304)	waves%coherentwave(:)%fullwave%e_components%k_perp (complexgrid_scalar_cplx) (7.9.8.1.116)
griduid (4219)	waves%coherentwave(:)%fullwave%e_components%k_perp%griduid (integer) (7.9.8.1.3)
subgrid (4219)	waves%coherentwave(:)%fullwave%e_components%k_perp%subgrid (integer) (7.9.8.1.3)
scalar (4219)	waves%coherentwave(:)%fullwave%e_components%k_perp%scalar (veccplx_type) (7.9.8.1.17)
vector (4219)	waves%coherentwave(:)%fullwave%e_components%k_perp%vector (matcplx_type) (7.9.8.1.14)
matrix (4219)	waves%coherentwave(:)%fullwave%e_components%k_perp%matrix (array3dcplx_type) (7.9.8.1.6)

pol_decomp (4340)	waves%coherentwave(:)%fullwave%pol_decomp (pol_decomp) (7.9.8.1.361)
mpol (4464)	waves%coherentwave(:)%fullwave%pol_decomp%mpol (vecint_type) (7.9.8.1.19)
e_plus (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus (array3dflt_type) (7.9.8.1.7)
e_plus_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_plus_ph (array3dflt_type) (7.9.8.1.7)
e_minus (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus (array3dflt_type) (7.9.8.1.7)
e_minus_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_minus_ph (array3dflt_type) (7.9.8.1.7)
e_norm (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm (array3dflt_type) (7.9.8.1.7)
e_norm_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_norm_ph (array3dflt_type) (7.9.8.1.7)
e_binorm (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm (array3dflt_type) (7.9.8.1.7)
e_binorm_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_binorm_ph (array3dflt_type) (7.9.8.1.7)
e_para (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_para (array3dflt_type) (7.9.8.1.7)
e_para_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%e_para_ph (array3dflt_type) (7.9.8.1.7)
b_norm (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm (array3dflt_type) (7.9.8.1.7)
b_norm_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_norm_ph (array3dflt_type) (7.9.8.1.7)
b_binorm (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm (array3dflt_type) (7.9.8.1.7)
b_binorm_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_binorm_ph (array3dflt_type) (7.9.8.1.7)
b_para (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_para (array3dflt_type) (7.9.8.1.7)
b_para_ph (4464)	waves%coherentwave(:)%fullwave%pol_decomp%b_para_ph (array3dflt_type) (7.9.8.1.7)
k_perp (4464)	waves%coherentwave(:)%fullwave%pol_decomp%k_perp (array3dflt_type) (7.9.8.1.7)
local (4340)	waves%coherentwave(:)%fullwave%local (local) (7.9.8.1.285)
e_plus (4388)	waves%coherentwave(:)%fullwave%local%e_plus (array3dflt_type) (7.9.8.1.7)
e_plus_ph (4388)	waves%coherentwave(:)%fullwave%local%e_plus_ph (array3dflt_type) (7.9.8.1.7)
e_minus (4388)	waves%coherentwave(:)%fullwave%local%e_minus (array3dflt_type) (7.9.8.1.7)
e_minus_ph (4388)	waves%coherentwave(:)%fullwave%local%e_minus_ph (array3dflt_type) (7.9.8.1.7)
e_norm (4388)	waves%coherentwave(:)%fullwave%local%e_norm (array3dint_type) (7.9.8.1.8)
enorm_ph (4388)	waves%coherentwave(:)%fullwave%local%enorm_ph (array3dflt_type) (7.9.8.1.7)
e_binorm (4388)	waves%coherentwave(:)%fullwave%local%e_binorm (array3dflt_type) (7.9.8.1.7)
e_binorm_ph (4388)	waves%coherentwave(:)%fullwave%local%e_binorm_ph (array3dflt_type) (7.9.8.1.7)
e_para (4388)	waves%coherentwave(:)%fullwave%local%e_para (array3dflt_type) (7.9.8.1.7)
e_para_ph (4388)	waves%coherentwave(:)%fullwave%local%e_para_ph (array3dflt_type) (7.9.8.1.7)
b_norm (4388)	waves%coherentwave(:)%fullwave%local%b_norm (array3dflt_type) (7.9.8.1.7)
b_norm_ph (4388)	waves%coherentwave(:)%fullwave%local%b_norm_ph (array3dflt_type) (7.9.8.1.7)
b_binorm (4388)	waves%coherentwave(:)%fullwave%local%b_binorm (array3dflt_type) (7.9.8.1.7)
b_binorm_ph (4388)	waves%coherentwave(:)%fullwave%local%b_binorm_ph (array3dflt_type) (7.9.8.1.7)
b_para (4388)	waves%coherentwave(:)%fullwave%local%b_para (array3dflt_type) (7.9.8.1.7)
b_para_ph (4388)	waves%coherentwave(:)%fullwave%local%b_para_ph (array3dflt_type) (7.9.8.1.7)
k_perp (4388)	waves%coherentwave(:)%fullwave%local%k_perp (array3dflt_type) (7.9.8.1.7)
codeparam (4210)	waves%coherentwave(:)%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	waves%coherentwave(:)%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	waves%coherentwave(:)%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	waves%coherentwave(:)%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	waves%coherentwave(:)%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	waves%coherentwave(:)%codeparam%output_flag (integer) (7.9.8.1.3)
codeparam (4177)	waves%codeparam (codeparam) (7.9.8.1.105)
codename (4208)	waves%codeparam%codename (string) (7.9.8.1.4)
codeversion (4208)	waves%codeparam%codeversion (string) (7.9.8.1.4)
parameters (4208)	waves%codeparam%parameters (string) (7.9.8.1.4)
output_diag (4208)	waves%codeparam%output_diag (string) (7.9.8.1.4)
output_flag (4208)	waves%codeparam%output_flag (integer) (7.9.8.1.3)
time (4177)	waves%time (float) (7.9.8.1.2)

cpoinstances [570]

last update: 2015-08-07 by dpc

last update: 2013-08-29 by dpc

[570] https://www.efda-itm.eu/ITM/html/cpoinstances__4.10b.11.html

8 IMP4

8.1 IMP4

The IMP4 web site is here. [571]

8.2 Scientific Rationale and Main Objectives

Provide turbulence, neoclassical, and linear instability codes as well as simple transport modules to the rest of the ITM. Also, some standards keeping. For more detail see above.

8.3 Documentation

Some of this exists here but most is on the main page. However, all relevant links are here:

- running the IMP4 benchmark [572]
- IMP4 codes in ITM workflows [573]
- an example of how to get CPO information including parameters into your code is the ETAIGB project [574] on Gforge [575]
- **for ETS/IMP3 users:** test workflows for IMP4 actors [576]
- serving transport quantities to the rest of ITM (8.5)
- the running exponential average (8.6)
- how to load the `coretransp` CPO (8.7)
- Neoclassical code comparisons
  - bootstrap current (8.8)
  - Ds and Chis (8.9)
- auxiliary IMP4 actors (like Ds and Vs, flux handling, etc) (8.10)

8.4 Private IMP4 pages

None exist (they may do in the future... for now I want IMP4 stuff open to the rest of the ITM).

(For access to the private IMP4 pages [577], an IMP4 password would have been needed)

8.5 Turbulent Flux Quantities in Transport Models

8.5.1 Overview

In conventional transport modelling, all quantities appearing in the equations are 1-D, in some radial coordinate (poloidal flux, normalised radius, etc). In general any monotonic radial coordinate is acceptable. In the TF-ITM, the toroidal flux radius is standard. All we need from the radial coordinate is the transformation to get to V, the volume enclosed by the flux surface, which is fundamental to the governing equations, which are conservation laws.

What we have to do is to take a measured result, which is a time-averaged fluctuation-based transport flux and turn it into 1-D quantities suitable to modelling. This is done using the flux surface average, explained in **conventions.** The transport equations themselves constitute a mean field approximation to the 3-D conservation laws. For the fundamentals encountered in transport modelling see R Hazeltine and J Meiss, *Plasma Confinement* (Addison-Wesley, 1992) chapter 8. For the special properties of transport driven by small-scale

[571] http://www.rzg.mpg.de/~bds/cyclone/
[572] http://home.rzg.mpg.de/~bds/cyclone/benchdoc.pdf
[573] http://home.rzg.mpg.de/~bds/cyclone/workflows.pdf
[574] https://gforge6.eufus.eu/svn/etaigb
[575] https://gforge.efda-itm.eu
[576] http://home.rzg.mpg.de/~bds/cyclone/profcheck.html
[577] https://www.efda-itm.eu/IMP4/html/index.html

pressure driven ExB microturbulence see B Scott, "The character of transport caused by ExB drift turbulence," *Phys Plasmas* **10** (2003) 963-976.

For ambipolarity we follow the rules for dynamical alignment, which follows the physics of how electron fluctuations determine the ExB velocity fluctuations, which then advect all species. Magnetic flutter nonlinearities act independently of this, but in our modelling they are used solely for heat fluxes since the averaged particle transport due to magnetic flutter and the current cancels, leaving the parallel ion velocity which we neglect for this purpose. The reference for dynamical alignment is B Scott, "Dynamical alignment in three species tokamak edge turbulence," *Phys Plasmas* **12** (2005) 082305.

Note: there are now auxiliary actors provided for this purpose: IMP4DV, which does the D/V conversion and enforces ambipolarity assuming absence of impurities, and IMP4imp, which subsequently enforces ambipolarity for the set of main ion and impurity species. The IMP4DV actor should be invoked directly after the transport model actor in the workflow chain, if the model produces only fluxes or if the coefficients have to be modified with the flux given. Ambipolarity is done using IMP4imp if the `coreimpurity` CPO is used in the workflow. These auxiliary actors are described on the auxiliary actors page. (8.10)

8.5.2 Particle Flux as an Example

The mean field equation governing particle balance is the transport equation for electrons,

$$\frac{\partial}{\partial t}\langle n\rangle + \langle\vec{\nabla}\cdot\widetilde{n}\vec{\widetilde{v}}_E\rangle = S$$

in which the tilde symbol over the n and v denotes fluctuating quantities and we neglect all transport processes except ExB eddy diffusion. The ExB velocity is given by

$$\vec{v}_E = \frac{c}{B^2}\vec{B}\times\vec{\nabla}\phi$$

where ϕ is the electrostatic potential.

The angle brackets denote the flux surface average, and we will use the property that the flux surface average of a divergence of a vector is the volume derivative of the flux surface average of a contravariant volume component of the vector, in this case

$$\langle\vec{\nabla}\cdot\vec{\Gamma}\rangle = \frac{\partial}{\partial V}\langle\Gamma^V\rangle$$

where Γ is the particle flux whose flux-surface averaged volume component is

$$\langle\Gamma^V\rangle = \langle\widetilde{n}\widetilde{v}_E^V\rangle$$

This is converted to expression in terms of the radial coordinate ρ using the fact that both V and ρ are flux quantities whose gradients are parallel to each other. We have

$$\frac{\partial}{\partial V} = \frac{1}{V'_\rho}\frac{\partial}{\partial\rho} \qquad \Gamma^\rho = \frac{1}{V'_\rho}\Gamma^V \qquad V'_\rho = \frac{\partial V}{\partial\rho} \qquad g^{VV} = (V'_\rho)^2 g^{\rho\rho}$$

so we can write the transport equation as

$$\frac{\partial n}{\partial t} + \frac{1}{V'_\rho}\frac{\partial}{\partial\rho}V'_\rho\langle\Gamma^\rho\rangle = S,$$

where we have replaced $\langle n\rangle$ with n following the assumptions of the 1-D version of mean field transport theory.

With all quantities now expressed in terms of flux quantities, we are free to characterise the transport flux $\langle\Gamma^\rho\rangle$ in an arbitrary way, so long as only flux quantities appear. The flux expansion within the flux surface as well as expansion or contraction of surfaces of constant ρ

is treated using the metric coefficient $g^{\rho\rho}$ which is dimensionless. This way we can characterise transport in terms of an effective diffusivity and an effective frictional slip velocity which are given in SI units. By convention both of these are done solely via $g^{\rho\rho}$ for convenience, also reflecting that the effective velocity is actually marking off-diagonal diffusive elements. Our convention for this follows the ETS code and is given by

$$\langle \Gamma^\rho \rangle = \langle g^{\rho\rho} \rangle \left(nV_{\text{eff}} - D_{\text{eff}} \frac{\partial n}{\partial \rho} \right)$$

So despite the special spatial distribution of any particular transport process (ie, the underlying instability or nonlinear free energy access), the flux-surface averaged flux itself and its expression in terms of diffusion and frictional slip are identical characterisations.

8.5.3 Metric Coefficients

Transport modellers want the Ds and Vs as physical quantities in SI units. In general the fluxes are (magnetic) flux surface averaged quantities, which implies the existence of metric elements in the conversion. In our case we need $\langle g^{\rho\rho} \rangle$ where ρ is the toroidal flux radius in meters, so the metric elements are dimensionless. In the `equilibrium CPO` , this is `gm3` under `equilibrium%profiles_1d` in the structure.

Note this is different from the ASTRA code which casts the Vs as proper velocities, i.e., with one factor of grad-rho given by $\langle \sqrt{g^{\rho\rho}} \rangle$ which is `gm7` under `equilibrium%profiles_1d` in the structure. The units are the same and the informational content is the same, but this difference has to be taken into account in any transport modelling and benchmarking.

8.5.4 Heat Fluxes

The heat flux is treated in a similar way, with transport equation

$$\frac{3}{2} \frac{\partial p_e}{\partial t} + \frac{1}{V'_\rho} \frac{\partial}{\partial \rho} V'_\rho \langle q_e^\rho \rangle = Q_e + \sum_{\text{ions}} T_{ei},$$

for electrons, with T_{ei} giving the species transfer and Q_e the source. For ExB transport the heat flux has a advective (also called convective) and a conductive piece given by

$$q_E = q_{E\text{cond}} + (3/2)T\Gamma_E$$

which appears with a 3/2 due to the Poynting cancellation. For magnetic flutter transport the advective piece appears with the usual factor,

$$q_m = q_{m\text{cond}} + (5/2)T\Gamma_m$$

Here the forms are given for each species and E and m refer to the ExB eddy and magnetic flutter channels, respectively. For reasons given below we are neglecting the magnetic flutter piece Γ_m for the time being, and then the flutter piece merely adds to the heat diffusivity.

The forms of these due to the fluctuations are then

$$\langle q^\rho \rangle = (3/2)\langle \widetilde{p}\widetilde{v}_E^\rho \rangle + \langle \widetilde{q}_\| \widetilde{b}^\rho \rangle$$

which breaks into advective and conductive pieces according to linearisation of the pressure fluctuations

$$\langle q_{\text{cond}}^\rho \rangle = (3/2)n\langle \widetilde{T}\widetilde{v}_E^\rho \rangle + \langle \widetilde{q}_\| \widetilde{b}^\rho \rangle \qquad \langle q_{\text{adv}}^\rho \rangle = (3/2)T\Gamma = (3/2)T\langle \widetilde{n}\widetilde{v}_E^\rho \rangle$$

hence the density fluctuation piece is accounted for by the particle flux. Neglect of the magnetic flutter advective piece (and particle flux) is the same as neglect of the $\widetilde{u}_\parallel \widetilde{b}^\rho$ nonlinearity (in the delivery of the results, not in the turbulence computations themselves).

The total conductive flux is then represented by

$$\langle q^\rho_{\rm cond} \rangle = \langle g^{\rho\rho} \rangle \left(nTY_{\rm eff} - n\chi_{\rm eff}\frac{\partial T}{\partial \rho} \right)$$

with χ and Y giving the heat diffusion and frictional slip pieces for each species, respectively (these are in diff_eff and vconv_eff in the CPO for each quantity).

Operationally, the turbulence module communicates the diff_eff and vconv_eff due to each transport channel for each species to the transport solver, and the metric coefficients are used by both modules. The two modules can be on arbitrarily different grids, which communicate through standard interpolation. This despite the fact that transport at the micro-level is angle dependent (in general, it can be 3-D in the time average if the sources are 3-D). The effective transport is 1-D so long as parallel sound transit within the flux surface remains fast compared to the local transport time. This breaks down anyway in the edge, so the fact that the volume is a problematic coordinate and the flux surface average is a problematic operation on open field lines doesn't enter.

8.5.5 Ds and Vs from Turbulence Codes to Transport Solvers

To serve the results from turbulence codes to transport solvers, we have to turn the fluxes (results) into diffusivities and effective velocities (coefficients, Ds and Vs for short), which represent more information than is at hand. Transport solvers must work with Ds and Vs because they use implicit schemes. The matrix must be diagonally dominant; hence one cannot simply use the Vs. Fluxes which are zero and/or negative should be given with positive diffusivities for the solvers to work. We need a set of rules to provide this.

Considering the particle and heat transport fluxes for a given species, we convert the gradient in to a logarithmic derivative and express the flux in terms of a specific flux, which has units of velocity,

$$F = \frac{1}{n}\langle g^{\rho\rho}\rangle^{-1}\langle \Gamma^\rho \rangle = V_{\rm eff} - D_{\rm eff}\frac{\partial \log n}{\partial \rho}$$
$$G = \frac{1}{nT}\langle g^{\rho\rho}\rangle^{-1}\langle q^\rho_{\rm cond} \rangle = Y_{\rm eff} - \chi_{\rm eff}\frac{\partial \log T}{\partial \rho}$$

wherein the conductive part of the heat flux (without the $3\Gamma/2$) enters.

The choice of what to do with the Ds and Vs is somewhat arbitrary. The needs of implicit transport solvers is for a positive D regardless of the value or sign of either flux. We decide this by putting a limit on the effective Prandtl number or its inverse: the larger specific flux is taken to be entirely diffusive, with the effective velocity set to zero. Furthermore, to address cases with very small or negative gradients, we use proxy variables for the scale lengths to calculate the provisional diffusivities before using the Prandtl number limitation to turn these into actual diffusivities. Finally, the rest of the flux is asigned to the effective velocity, so that the D and V formula reflects the actual specific flux.

The Prandtl number limitation is expressed as follows. If the smaller specific flux is within a factor of 5 of the larger, then both are purely diffusive and the effective velocities are both zero. If not, then the D ratio is set to 5, with the result that the smaller D, having been corrected, is accompanied by the corresponding V, which is now nonzero. The specific flux with the larger D will be returned with a V which is zero.

The rationale is that the turbulent mixing by the ExB velocity affects all processes, but that linear forcing can shift the average phase shift of the fluctuations such that the effective flux can be small or negative. The simplest example is adiabatic electrons, for which the ion heat flux is robust but the particle flux is zero. In most situations the specific heat flux will be the larger, and hence the familiar situation is that of a D and V for the particle flux but a D (the chi) only for the conductive heat flux.

The full algorithm starting with the specific fluxes appears as

$$L_n^{-1} = \max\left(\frac{1}{R}\,,\,\left|\frac{\partial \log n}{\partial \rho}\right|\right) \qquad L_T^{-1} = \max\left(\frac{1}{R}\,,\,\left|\frac{\partial \log T}{\partial \rho}\right|\right)$$
$$D' = |F|\,L_n \qquad \chi' = |G|\,L_T$$
$$D = \max\left(D'\,,\,\tfrac{1}{5}\chi'\right) \qquad \chi = \max\left(\chi'\,,\,\tfrac{1}{5}D'\right)$$
$$V = \left(F + D\frac{\partial \log n}{\partial \rho}\right) \qquad Y = \left(G + \chi\frac{\partial \log T}{\partial \rho}\right)$$

and all four elements are set. Note that the channels are done in parallel except for the Prandtl correction, in which the Max's are taken sequentially. For the provisional diffusivities, absolute values are used to ensure positive values which are needed by transport solvers.

Note how in the end the actual gradients are used. If the gradients are moderate then their actual values are used, and if the Prandtl correction is not invoked, then both channels are diagonal. In any case the full relation is used to get the effective velocities (V and Y) so having set the rules to handle the arbitrariness of the diffusivities (D and chi) to guarantee reasonable diagonal dominance in a transport solver, the D's and V's agree with the fluxes themselves.

If there are more than two specific fluxes per species to consider, then we treat each scale length separately as above and use N-way maxima in the Prandtl correction for the N channels.

8.5.6 Ambipolarity

There remains the issue of ambipolarity of the D and V for particle flux. For a pure singly charged plasma the ion and electron Ds and Vs should be equal. Even if the turbulence model is gyrokinetic or gyrofluid, in which case the gyrocenter charge density is not zero but is equal to the generalised vorticity (polarisation), the quantities given to a transport solver should follow the rules for a fluid representation. However, transport modelling usually applies ambipolarity rules to the electrons after computing the ions, while the action of turbulence is actually the other way around: Dynamical alignment refers to the process by which (1) electron parallel dynamics controls the electrostatic fluctuations, then (2) the resulting ExB velocity advects all species equally. So we correct the particle fluxes by assuming the electrons determine the D according to the above procedure and then (1) the fluctuations in the flux-inducing part of the spectrum for the logarithmic densities are the same, and (2) the D's are the same. Then the V's are solved for again, by taking

$$D_z = D_e = D \qquad V_z = V_e + D\frac{\partial \log b_z}{\partial \rho} \qquad b_z = n_z/n_e$$

This is better than the transport modelling convention but will give them the same information in a different way, and they will compute ambipolar particle fluxes (radial transport of charge is zero).

8.5.7 Statistical Character

Turbulence has a statistical character, so convergence to a mean is not monotonic and when within one std dev of the mean there is no further convergence. The diffusivity for ExB turbulence is comparable to

$$D_E = \langle(\widetilde{v}_E)^2\rangle / \langle(\varpi)^2\rangle^{1/2} \qquad \varpi_E = \frac{c}{B}\nabla_\perp^2\widetilde{\phi}$$

where ϖ_E is the ExB vorticity fluctuation, and these angle brackets denote the ensemble average. To get an ensemble average over a statistical quantity in practice, one must do some sort of finite-time running averaging.

For transport modelling, the transport coefficients derived from a turbulence code should always be given in terms of running exponential averages. (8.6)

A HOWTO for loading the `coretransp` CPO is given here. (8.7)

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last update: 2015-03-27 by bds

8.6 Running Exponential Average

8.6.1 Overview

In conventional transport modelling, turbulent fluxes are modelled in terms of processes which are diffusive in the local relaxation sense, with the average flux given by a diffusion coefficient and an effective pinch velocity. The equations are of dominantly parabolic character, which means in practice that an iterate will move monotonically towards the solution in parameter space.

This is not the case for turbulence. Convergence is statistical, which is something different than a diffusive relaxation. If turbulence is stationary, it is meant only that the mean of a distribution of iterates is stationary, not the iterates themselves. The standard deviation can be significant, of order unity compared to the mean, of any distribution of iterates.

This makes for a noisy signal if the output of a turbulence code is used for transport coefficients in a workflow. A sound way to overcome the attendant problems is to use a moving average. Even an average over a moving window can be as noisy as the original signal, however. What works better is a weighted average over recent past values. A method to get this is called a **running exponential average,** which is essentially the same thing as a convolution integral over an exponential memory decay times the past signal. It turns out to be very easy to obtain this without saving past values.

The original reference for the following is S W Roberts, "Control Chart Tests Based on Geometric Moving Averages," *Technometrics* **1** (1959) 239-250, cited by all the good WWW resources, including the Wikipedia page on Moving Averages and the NIST Statistical Handbook online.

8.6.2 Definition

Consider a process $p(\vec{u})$ which is a functional of dependent variables $\vec{u}$. Measure p at discrete time intervals t_n, with values $p_n = p(t_n)$

and interval length $\tau = t_n - t_{n-1}$. The moving exponential average $A_n = A(p_n)$ on the n-th interval is defined as

$$A_n = \epsilon p_n + (1-\epsilon)A_{n-1} \qquad \text{with} \qquad \epsilon = \alpha\tau$$

in which the small parameter ϵ is given in terms of the interval τ and an inverse time constant α.

In the first instance p is measured there is no A so the first value of A is simply set to p since it can be assumed that the initial state for p has persisted for infinite previous time up to the initial time point.

8.6.3 Differential Equation

The equivalent differential equation is found by forming the relevant finite difference,

$$A_n - A_{n-1} = \epsilon(p_n - A_{n-1})$$

which we can also cast as

$$(1-\epsilon)(A_n - A_{n-1}) = \epsilon(p_n - A_n)$$

Taking the limit $\tau \to 0$ is the same as taking $\epsilon \to 0$ so both of these expressions become equivalent to

$$\frac{\partial A}{\partial t} = \alpha(p - A)$$

whose solution is given below.

8.6.4 Equivalence to Past-Time Convolution Integral

The solution of the above differential equation is given by the method of undetermined coefficients,

$$\begin{aligned}
&\frac{\partial A}{\partial t} + \alpha\, A = \alpha\, p \\
&e^{-\alpha t}\frac{\partial}{\partial t}\left(e^{\alpha t} A\right) = \alpha\, p \\
&\frac{\partial}{\partial t}\left(e^{\alpha t} A\right) = \alpha\, p\, e^{\alpha t}
\end{aligned}$$

We may integrate this over all past time, to find

$$A(t) = \int_{-\infty}^{t} \alpha\, dt'\; p(t')\, e^{-\alpha(t-t')}$$

This is a convolution integral over the kernel $e^{-\alpha(t-t')}$ and the signal $p(t')$. The time constant α^{-1} is just the memory decay time, while if p is constant then the integral yields unity times p. This is the same as the normalisation with the $(1-\epsilon)$ factor in the average formula above, which is needed since the interval is of finite size.

Hence the running exponential average is operationally the same as a memory decay integral over past time. The elegant feature is the need to keep only the current value of A, as it already contains all that is needed of the past time evolution of p.

8.6.5 notes

Some properties of the running exponential average and how to choose its main time-memory parameter:

- The $(1-\epsilon)$ factor is needed for normalisation
- if $p =$ constant then $A = p$ for all t
  - the integral with $\alpha\, dt'$ yields unity
  - the ϵ and $(1-\epsilon)$ factors add to unity
  - therefore set the first value of A to the first value of p
- in choosing the memory decay time α^{-1} ...
  - one should have $\alpha\tau_{\rm cor} \ll 1$
  - best results are for $\alpha\tau_{\rm sat} \sim 1$
  - some trial/error required; edge turbulence likes $\alpha^{-1} = 200L_\perp/c_s$

In these expressions $\tau_{\rm cor}$ and $\tau_{\rm sat}$ are the correlation and saturation times of the turbulence, respectively.

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8.7 How to Load the Coretransp CPO

8.7.1 Where to Put the Ds and Vs additional to the Fluxes

The CPO form for each transport channel contains `diff_eff`, `vconv_eff`, and `flux` as the three pieces of relevance to us.

As the simplest example we take the electron temperature channel (conductive heat flux). The entire section is `coretransp%te_transp` which is of type `transcoefel`. The contents are then given by the relevant section of `euitm_schemas` which is

```
type type_transcoefel
  real(DP),pointer  :: diff_eff(:) => null()
  real(DP),pointer  :: vconv_eff(:) => null()
  real(DP),pointer  :: flux(:) => null()
  type (type_offdiagel) :: off_diagonal
  integer  :: flag=-999999999
endtype
```

So for these the first three elements are all dimensioned to `nrho` which is the number of radial points on the turbulence code's grid. It has been decided (Cyprus 2011 Code Camp) that the IMP4 codes should not try to interpolate onto another CPO grid, because the transport modelling should be left with the flexibility (ie, take the core portion from a global code and the edge layer from an edge code which might have different physics). The off-diagonal elements are left blank by turbulence codes.

The next is the electron density channel (main particle flux). The entire section is `coretransp%ne_transp` which is of type `ne_transp`. The contents are then given by the relevant section of `euitm_schemas` which is

```
type type_ne_transp
  real(DP),pointer  :: diff_eff(:,:) => null()
  real(DP),pointer  :: vconv_eff(:,:) => null()
  real(DP),pointer  :: flux(:) => null()
  type (type_offdiagel) :: off_diagonal
  integer  :: flag=-999999999
endtype
```

which is just like the `transcoefel` except the first two elements have an extra index (the last one). This is dimensioned `1:3` and tells the transport solver which coefficient appears with convective heat fluxes: the multiplier is 0, 3/2, or 5/2, and the relevant D and V go into position 1, 2, or 3, respectively. It is possible to have two channels with different multipliers. The ExB transport has multiplier 3/2 due to the Poynting cancellation, but the parallel velocity component of magnetic flutter has multiplier 5/2. So the conductive D and V coefficients are added together into the `te_transp` channel, and the particle D and V coefficients from the ExB and flutter pieces are put into positions 2 and 3, respectively. Note that although the part of magnetic flutter transport arising from parallel current and radial magnetic fluctuations vanishes in the average, the ion parallel velocity is left over and can contribute in unusual situations.

The ion species are done just like the electrons, but the types are `transcoefion` and `ni_transp` with an extra second index in all variables, for the ion species index. For a pure plasma (e and i only), the dimension of the second index is `nion = 1` and the density D and V now have a third index which is the one for the 0, 3/2, or 5/2 multipliers. All other considerations are as for the electrons.

Examples for how these should be loaded appear in `bscott/public/HDF5_files/global/` and `bscott/public/HDF5_fil` for global and fluxtube codes, respectively, with the filename being `itmfluxes.f90`

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8.8 Neoclassical Bootstrap Current Comparison

8.8.1 The Models

NeoWes is a simple neoclassical module intended for circular models, using a set of formulae from Wesson's textbook *Tokamaks.* NeoS is Olivier Sauter's package using a set of fitting coefficients to Fokker-Planck results. NeoArt is the multi-species neoclassical code from Arthur Peeters. Here we do a simple comparison.

In a model using simple profiles and the equilibrium code BDSEQ (circular boundary surface, shifted-circle flux surfaces) we compare the run of the bootstrap current and conductivity in the two models as a function of ρ which is defined as the normalised toroidal flux radius `rho_tor_norm` in the CPO. An electron-proton plasma with equal temperatures and densities is assumed with

$$T = T_0 \exp(-8\rho^2/3) \qquad n = n_0 \exp(-8\rho^2/7) \qquad J_\varphi = -\frac{2B_0}{\mu_0 q_0}(1-\rho^2)\exp(-\rho^2)$$

with parameters

$$\begin{array}{lll} B_0 = -5.3\,\mathrm{T} & R_0 = 6.2\,\mathrm{m} & a = 2\,\mathrm{m} \\ T_0 = 10\,\mathrm{keV} & n_0 = 8.7\times 10^{19}\,\mathrm{m}^{-3} & q_0 = -1.5 \end{array}$$

Of course, $Z_{\mathrm{eff}} = 1$. Note that in the CPOs J_φ is R_0 times `jphi` (ie, it is the covariant component). The sign conventions for J_φ and B_0 follow ITER (out of the poloidal plane, on the right of the symmetry axis, from the point of view of an observer in the toroidal midplane outside the tokamak).

The necessary CPO input to BDSEQ is

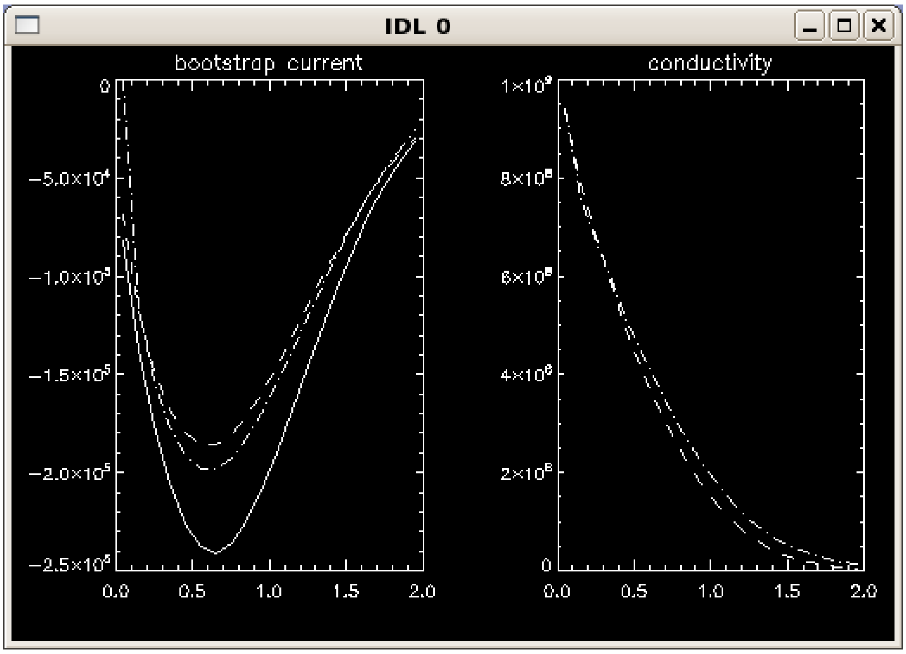
```
equilibrium%global_param%toroid_field%b0
equilibrium%global_param%toroid_field%r0
equilibrium%eqgeometry%a_minor
equilibrium%profiles_1d%rho_tor
equilibrium%profiles_1d%pressure
equilibrium%profiles_1d%jphi
```

The first three are B_0, R_0, a, respectively, and `rho_tor` is ρa on the `coreprof` grid. The pressure and current are found from

$$\textbf{jphi} = R_0 J_\varphi \qquad \textbf{pressure} = 2nk_B T$$

also on the `coreprof` grid.

The following graph gives the results of the comparison. The solid lines are from NeoArt, the dashed ones from NeoWes, and the dot-dashed ones from NeOS. In the context of such a circular model the results are in good agreement. On the conductivity, we don't have the one from NeoArt yet so the other two are shown.



last update: 2012-03-28 by bscott

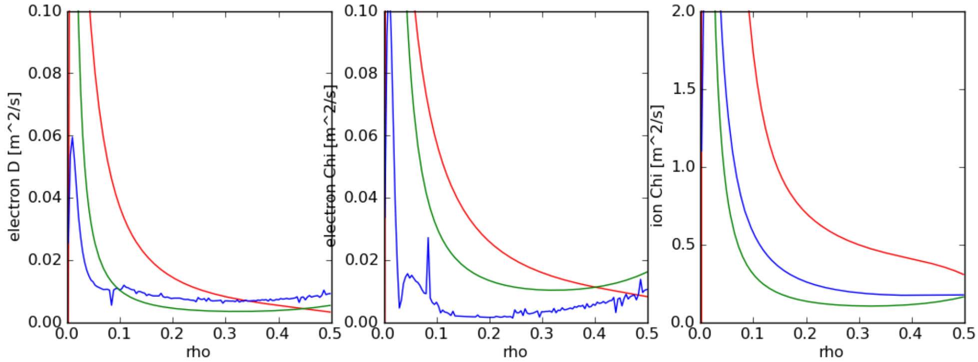
8.9 Neoclassical Diffusivity Comparison

8.9.1 The Models

NeoWes is a simple neoclassical module intended for circular models, using a set of formulae from Wesson's textbook *Tokamaks*. NClass is Wayne Houlberg's code, well known as a standard tool. NeoArt is the multi-species neoclassical code from Arthur Peeters. Here we do a simple comparison of the electron and ion diffusivities using the IMP4 Shot 1 Run 1 base case (pure electron-deuterium plasma).

The equilibrium is re-done with BDSEQ, a simple model of circular boundary surface, shifted-circle flux surfaces, since some newer equilibrium CPO elements are needed. Hence only the profiles and a, R_0, and B_0 are used from the database.

We compare the run of the particle and heat diffusivities with toroidal flux radius. The density and temperature profiles are shown, and q goes from about -1.5 to -3.3. The UALPython actor was used to do the plots, which are shown for each neoclassical code. There appears to still be a problem with this implementation of NClass.



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8.10 Auxiliary IMP4 Actors

8.10.1 Where to get them

These are located on Gforge in kepleractors/tags/4.10b/imp4/ and kepleractors/trunk/4.10b/imp4/ where the number refers to UAL version and will update in step with the UAL. Most up to date for developers: the versions in /pfs/home/bds/public/4.10b.10_actors which are ready for import (latest: 16h00 Thu 26 Mar 2015). For interpolation purposes rho tor norm must be set and filled.

8.10.2 IMP4DV

Purpose: accept coretransp fluxes and fill diff_eff and vconv_eff fields

- inputs: equilibrium, coreprof, coretransp
- output: coretransp
- no parameters

8.10.3 IMP4imp

Purpose: fill the impurity fields, diff_eff and vconv_eff for nz_transp (dynamical alignment rules, use D for electrons and V to set ambipolarity)

- inputs: coreprof, coreimpur, coretransp
- output: coretransp
- no parameters

last update: 2015-03-26 by bds

8.11 Meetings

8.11.1 2011/03/7-18 Code Camp in CEA/Cadarache

Slides from the IMP4 contributions to the code camp are here [578]

8.11.2 2010/09/13-17 ITM General Meeting in Lisbon

8.11.2.1 Posters

- *The IMP4 wrapper for running IMP4 codes in UAL framework* (pdf [579]), by D. Reiser and A. Nielsen

[578] http://www.rzg.mpg.de/~bds/cyclone/CC_IMP4.pdf
[579] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf

last update: 2011-02-10 by konz

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last update: 2011-04-15 by bscott

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last update: 2011-03-12 by bscott

9 IMP5

9.1 IMP5 - Heating, current drive and fast particles

The aim of the Integrated Modelling Project #5 on Heating, Current Drive and Fast Particles is to develop a package of codes for prediction (29) and interpretation of heating, current drive and fast particle effects. The areas to be covered include ECRH, ICRH, NBI, LH, alpha particles and fast particle interaction with instabilities. The ultimate goal is to enable self-consistent simulation of heating and current drive in the presence of fast particle instabilities, especially for ITER.

A self-consistent treatment of all possible heating scenarios is a very challenging problem with current modelling capabilities. Owing to the vastly different time scales for wave propagation and the evolution of distribution functions, simulations of heating and current drive can, in general, be obtained by combining codes solving the wave fields at time slices with codes evolving the distribution functions between the time slices. The goal is to have at least one module for each physics area at two levels: one basic and less detailed enabling fast computations, and one advanced, but computationally expensive, enabling detailed computations of the distribution functions of electrons and ions during heating and current drive, ultimately incorporating non-linear effects of instabilities and their redistribution fast ions.

In 2010, the work on adapting code modules to ITM requirements will be consolidated such that essential modules are available for providing the necessary input to the transport solver ETS (IMP3 [580]). The data structures relating to the physics of Heating and Current drive and fast particle physics will be improved further. New modules will be considered and adapted to the ITM standards. When more than one module of a certain type is available, work on cross verification (29) will start.

9.2 Project Leadership

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9.3 IMP5 Tasks for 2012

9.3.1 WP12-ITM-IMP5-ACT1

Topic: Creation, testing and benchmarking of Kepler Actors from Heating, Current Drive and Fast Particle Physics codes for use in ITM workflows.

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[580] https://www.efda-itm.eu/ITM/html/imp3_public.html

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9.3.2 WP12-ITM-IMP5-ACT2

Topic: Integration of IMP5 modules in ITM workflows

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9.3.3 WP12-ITM-IMP5-ACT3

Topic: Development and integration of models for synergies between heating schemes and self-consistent coupling of IMP5 heating codes

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9.3.4 WP12-ITM-IMP5-ACT4

Topic: Fast particle codes

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9.3.5 Tasks in the 2010 Work Programme

The list of IMP5 related tasks for 2010.

9.3.5.1 WP10-ITM-IMP5-ACT1

Topic: Adaptation of IMP5 codes for use with ITM tools

Priority Support Deliverables:

- The codes that will part of the IMP5 set during 2010 should be identified.

- For each code a schedule for release and other milestones associated with it should specified.

- A code under the ITM svn server adapted to ITM standards, i.e. communicating data via CPOs (29) .

- Documentation of the code including information on verification (29) or references to work where verification has been demonstrated.

- The codes participating in the benchmarking task will be adapted to the ITM data structures and ported on the ITM code platform.

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9.3.5.2 WP10-ITM-IMP5-ACT2

Topic: IMP5 data structure

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9.3.5.3 WP10-ITM-IMP5-ACT3

Topic: Benchmarking and validation of codes

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9.3.5.4 WP10-ITM-IMP5-ACT4

Topic: Development of an advanced 3D ion Fokker-Planck solver for ions

Priority Support Deliverables:

- A document defining the agenda for a Working Session on the Task, which also sets out the options to be discussed.

- Progress report on the developments within the task.

[581] https://www.efda-itm.eu/ITM/html/fulvio.zonca@enea.it

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9.3.5.5 WP10-ITM-IMP5-ACT5

Topic: Code for Alfvén Modes

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9.3.5.6 WP10-ITM-IMP5-ACT6

Topic: Data joiners

Priority Support Deliverables:

- A code under the ITM svn server adapted to ITM standards and running in Kepler (29) , joining data from wave deposition codes for input to Fokker-Planck codes. The module should be documented.

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9.3.5.7 Project timeline

Gantt Chart for the IMP5 timeline (open with e.g. OpenProject or GanttProject) :

imp5_gantt_chart.xml [582](imp5_gantt_chart.pdf [583])

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last update: 2015-07-23 by tjohnson

[582] https://www.efda-itm.eu/ITM/imports/imp5/public/project_management/imp5_gantt_chart.xml
[583] https://www.efda-itm.eu/ITM/imports/imp5/public/project_management/imp5_gantt_chart.pdf

9.3.6 Tasks in the 2011 Work Programme

9.3.6.1 WP11-ITM-IMP5-ACT1

Topic: Adaptation of codes for Heating, Current Drive and Fast Particle Physics for use with ITM tools

Subtask 1 - Priority Support Deliverables:

- Code adaptation up to creation of a Kepler actor (for new codes)

Subtask 2 - Baseline Support Deliverables:

- Code adaptation up to creation of a Kepler actor (for people finishing off their planned for 2010)

Subtask 3 - Priority Support Deliverables:

- Kepler actor and test workflow

- Code documentation for developers and maintainers, and User documentation (Phase IV)

- Adaptation to version 4.08c of the data structures; to be completed within 3 months from the release of version 4.08c of the data structures

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9.3.6.2 WP11-ITM-IMP5-ACT2

Topic: Integration of IMP5 modules with the European transport Solver ETS

Priority Support Deliverables:

- Development of Composite Actors for coupling IMP5 codes to the ETS. – Develop composite actors for the ETS; – Develop workflows for testing the composite actors; – Develop standard test cases for the composite actors.

- Development of datajoiners, i.e. modules merging the information in IMP5 related CPOs. Develop datajoiners of two types to: – merge two CPOS of the same kind, e.g. from two wave codes writing the waves-CPO for EC and LH waves; – generate the coresource-CPO by merging the CPOs distribution, distsource and waves.

- Development of modules for workflow orchestration. The IMP5 composite actor should look the same for many types of scenarios. This means that for many ETS simulations not all codes should be run. These routines should provide decision on what codes need running in a specific ETS simulations, i.e. they should take CPO and Kepler parameters as input and output Kepler parameters. Note that these modules are only needed when they cannot be replaced by a simple KEPLER composite actor.

- Application, adaptation and development of the composite actors in 1. for integrated workflows suitable to cross-project integration efforts, e.g. coupling equilibrium reconstruction (from remote data via exp2itm) and HCD chain. – Develop composite actors and workflows for integration of ITM codes and testing. – Reports on testing of the composite actors and workflows.

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9.3.6.3 WP11-ITM-IMP5-ACT3

Topic: Benchmarking and validation of codes

Priority Support Deliverables:

- Deliver report including a detailed description of verification or validation procedure and results.

- Publications, or conference contributions

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9.3.6.4 WP11-ITM-IMP5-ACT4

Topic: Development and integration of models for synergies between heating schemes and self-consistent coupling of IMP5 heating codes

Subtask 1:

- Synergies: Fokker-Planck modeling including both sources of beam ions and alpha particle and interactions with ICRF and LH wave fields.

Subtask 2:

- Synergies: Fokker-Planck modeling including interactions with EC, LH and ICRF wave fields.

Subtask 3:

- Quasilinear coupling of wave and kinetic plasma model by inclusion of a non- Maxwellian in the plasma susceptibility. This includes both the evaluation of the dielectric response from a general distribution function taken from the DISTIRIBUTION CPO and adaptation of wave codes to use this response.

Priority Support Deliverables:

- Actors and source code with documentation; all stored under Gforge-svn. Documentation of tests verifying

[622] https://www.efda-itm.eu/ITM/html/mireille.schneider@cea.fr
[623] https://www.efda-itm.eu/ITM/html/Yves.PEYSSON@cea.fr
[624] https://www.efda-itm.eu/ITM/html/remi.dumont@cea.fr
[625] https://www.efda-itm.eu/ITM/html/figini@ifp.cnr.it
[626] https://www.efda-itm.eu/ITM/html/sergio.briguglio@enea.it
[627] https://www.efda-itm.eu/ITM/html/claudio.ditroia@enea.it
[628] https://www.efda-itm.eu/ITM/html/rbb@ipp.mpg.de
[629] https://www.efda-itm.eu/ITM/html/Emanuele.Poli@ipp.mpg.de
[630] https://www.efda-itm.eu/ITM/html/seppo.sipila@tkk.fi
[631] https://www.efda-itm.eu/ITM/html/thomas.johnson@ee.kth.se
[632] https://www.efda-itm.eu/ITM/html/thel@kth.se
[633] https://www.efda-itm.eu/ITM/html/gregorio.vlad@enea.it
[634] https://www.efda-itm.eu/ITM/html/giuliana.fogaccia@enea.it
[635] https://www.efda-itm.eu/ITM/html/pwl@ipp.mpg.de
[636] https://www.efda-itm.eu/ITM/html/antti.snicker@tkk.fi
[637] https://www.efda-itm.eu/ITM/html/erik.sunden@physics.uu.se
[638] https://www.efda-itm.eu/ITM/html/otto.asunta@tkk.fi

the functionality of the source. Source code should follow good ITM practice.

- Workflows for performing modelling of synergies and self-consistent coupling between codes.

Table 4705: Participants

Name	Association	e-mail
Remi Dumont	CEA	remi.dumont@cea.fr [639]
Mireille SCHNEIDER	CEA	mireille.schneider@cea.fr [640]
Roberto Bilato	IPP	rbb@ipp.mpg.de [641]
Gyorgy Steinbrecher	MEdC	steinbrechergyorgy@yahoo.com [642]
Antti Salmi	TEKES	antti.salmi@tkk.fi [643]
Thomas Johnson	VR	thomas.johnson@ee.kth.se [644]
Torbjorn Hellsten	VR	thel@kth.se [645]

9.3.6.5 WP11-ITM-IMP5-ACT5

Topic: Code development and datastructure evaluation for global stability analyses of Alfven Modes in realistic geometries and in the presence of non-perturbative fast ion excitations

Priority Support Deliverables:

- Complete code debugging of numerics and physics

- Evaluation of suitable datastructure for energetic particle distribution function, with reference to initial particle loading and after nonlinear saturation

Table 4706: Participants

Name	Association	e-mail
Gregorio Vlad	ENEA-Frascati	gregorio.vlad@enea.it [646]
Sergio Briguglio	ENEA-Frascati	sergio.briguglio@enea.it [647]
Giuliana Fogaccia	ENEA-Frascati	giuliana.fogaccia@enea.it [648]
Fulvio Zonca	ENEA-Frascati	fulvio.zonca@enea.it [649]

9.3.6.6 WP11-ITM-IMP5-ACT6

Topic: Development of codes calculating nuclear reaction rates

Baseline Support Deliverables:

- Source code with documentation; all stored under Gforge. Documentation of tests verifying the functionality of the source. Source code should follow good ITM practice.

Table 4707: Participants

Name	Association	e-mail
Mireille SCHNEIDER	CEA	mireille.schneider@cea.fr [650]
Simppa Akaslompolo	TEKES	simppa.akaslompolo@tkk.fi [651]
Otto Asunta	TEKES	otto.asunta@tkk.fi [652]
Erik Andersson Sundn	VR	erik.sunden@physics.uu.se [653]

[639] https://www.efda-itm.eu/ITM/html/remi.dumont@cea.fr
[640] https://www.efda-itm.eu/ITM/html/mireille.schneider@cea.fr
[641] https://www.efda-itm.eu/ITM/html/rbb@ipp.mpg.de
[642] https://www.efda-itm.eu/ITM/html/steinbrechergyorgy@yahoo.com
[643] https://www.efda-itm.eu/ITM/html/antti.salmi@tkk.fi
[644] https://www.efda-itm.eu/ITM/html/thomas.johnson@ee.kth.se
[645] https://www.efda-itm.eu/ITM/html/thel@kth.se
[646] https://www.efda-itm.eu/ITM/html/gregorio.vlad@enea.it
[647] https://www.efda-itm.eu/ITM/html/sergio.briguglio@enea.it
[648] https://www.efda-itm.eu/ITM/html/giuliana.fogaccia@enea.it
[649] https://www.efda-itm.eu/ITM/html/fulvio.zonca@enea.it
[650] https://www.efda-itm.eu/ITM/html/mireille.schneider@cea.fr
[651] https://www.efda-itm.eu/ITM/html/simppa.akaslompolo@tkk.fi
[652] https://www.efda-itm.eu/ITM/html/otto.asunta@tkk.fi
[653] https://www.efda-itm.eu/ITM/html/erik.sunden@physics.uu.se

Table 4707: Participants

Name	Association	e-mail
Klaus Schopf	OAW	Klaus.Schoepf@uibk.ac.at [654]
Viktor Goloborod'ko	OAW	V.Goloborodko@uibk.ac.at [655]
Victor Yavorskij	OAW	Victor.Yavorskij@uibk.ac.at [656]

last update: 2012-01-10 by tjohnson

last update: 2015-07-23 by tjohnson

9.4 List of IMP5 codes

The following list lists the codes and modules which are part of ITM-TF tasks and their responsible officers.
A number of IMP5 codes have projects on gforge [657].
Update the code status here [658].

9.4.1 Electron heating codes

9.4.1.1 EC wave codes

- TORAY-FOM, E. Westerhof, FOM (code status [659], codeparam [660])
- TORBEAM, E. Poli, IPP-Garching (code status [661])
- GRAY, L. Figini, ENEA-CNR (code status [662], gforge [663], codeparam [664])
- TRAVIS, N. B. Marushchenko, IPP-Greifswald (code status [665], gforge [666])

9.4.1.2 LH wave codes

- RAYLH, A. Cardinali, EURATOM-ENEA (code status [667])

9.4.1.3 Combined EC and LH wave codes

- C3PO, Y. Peysson, CEA (Cadarache) (code status [668])

9.4.1.4 Combined electron Fokker-Planck codes

- RELAX, E. Westerhof, FOM (code status [669])

[654] https://www.efda-itm.eu/ITM/html/Klaus.Schoepf@uibk.ac.at
[655] https://www.efda-itm.eu/ITM/html/V.Goloborodko@uibk.ac.at
[656] https://www.efda-itm.eu/ITM/html/Victor.Yavorskij@uibk.ac.at
[657] https://gforge6.eufus.eu/project/?action=ProjectTroveBrowse&_trove_category_id=312
[658] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM
[659] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=TORAY-FOM&SUBMIT=Submit+Query
[660] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_torayfom.html
[661] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=TORBEAM&SUBMIT=Submit+Query
[662] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=GRAY&SUBMIT=Submit+Query
[663] https://gforge6.eufus.eu/project/gray/
[664] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_gray.html
[665] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=TRAVIS&SUBMIT=Submit+Query
[666] https://gforge6.eufus.eu/project/gray/
[667] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=RAYLH&SUBMIT=Submit+Query
[668] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=C3PO&SUBMIT=Submit+Query
[669] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=RELAX&SUBMIT=Submit+Query

- LUKE, Y. Peysson (code status [670], gforge [671])

9.4.1.5 LH coupling

- ALOHA, J. Hillairet, CEA (Cadarache) (code status [672], gforge [673])

9.4.1.6 Time domain wave codes

- FWTOR, C. Tsironis, Hellenic Association (code status [674], gforge [675])

9.4.2 Ion heating codes

9.4.2.1 Wave codes for ion cyclotron heating

- TORIC, R. Bilato, IPP-Garching (code status [676], gforge [677])
- EVE, R. Dumont, CEA (Cadarache) (code status [678], gforge [679])
- LION, O. Sauter, CRPP
- Cyrano, E. Lerche, ERM/KMS
- ICCOUP, T. Johnson, VR (gforge [680])

9.4.2.2 Fokker-Planck codes for ion cyclotron heating

- FPSIM, L.-G. Eriksson, EC (code status [681], gforge [682])
- SSFPQL, R. Bilato, IPP-Garching (code status [683])
- RFOF, T. Johnson, VR (gforge [684], documentation [685], codeparam [686])
- Stix_Redist, E. Lerche and D. Van Eester (gforge [687], codeparam [688])
- Stix_Disp, E. Lerche and D. Van Eester (gforge [689])

[670] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=LUKE&SUBMIT=Submit+Query
[671] https://gforge6.eufus.eu/project/luke/
[672] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=C3PO&SUBMIT=Submit+Query
[673] https://gforge6.eufus.eu/project/aloha/
[674] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=FWTOR&SUBMIT=Submit+Query
[675] https://gforge6.eufus.eu/project/spot/
[676] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=TORIC&SUBMIT=Submit+Query
[677] https://gforge6.eufus.eu/project/toric/
[678] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=EVE&SUBMIT=Submit+Query
[679] https://gforge6.eufus.eu/project/eve/
[680] https://gforge6.eufus.eu/project/fpsim/
[681] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=fpsim&SUBMIT=Submit+Query
[682] https://gforge6.eufus.eu/project/fpsim/
[683] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=SSFPQL&SUBMIT=Submit+Query
[684] https://gforge6.eufus.eu/project/rfof/
[685] https://portal.eufus.eu/documentation/ITM/doxygen/imp5/rfof/docs/
[686] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_rfof.html
[687] https://gforge6.eufus.eu/project/stixredist/
[688] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_stix_redist.html
[689] https://gforge6.eufus.eu/project/stixredist/

9.4.2.3 NBI sources for Fokker-Planck codes

- BBNBI (Beamlet-based NBI module of ASCOT), O. Asunta, TEKES (code status [690], gforge [691])
- NEMO, M. Schneider, CEA (Cadarache) (code status [692], gforge [693],
- SNBI (OAW NBI source), K. Schöpf, OAW (code status [694])

9.4.2.4 Nuclear sources (input for Fokker-Planck codes)

- Nuclearsim, T.Johnson, VR (gforge [695], codeparam [696])

9.4.2.5 NBI Fokker-Planck codes

- RISK, M. Schneider, CEA (Cadarache) (code status [697], gforge [698])
- NBISIM, T. Johnson, VR
- FIDIT, K. Schöpf, OAW (code status [699])

9.4.2.6 Advanced codes

(The following codes include either the synergy between IC and NBI heating, or include both wave field and Fokker-Planck solver)

- ASCOT, S. Sipila, TEKES (code status [700], gforge [701], codeparam [702])
- SPOT, M. Schneider, CEA (Cadarache) (code status [703], gforge [704])
- SELFO-light, T. Hellsten, VR (code status [705], gforge [706])

9.4.2.7 Orbit tracing codes

- SOFI, S. Sipila, TEKES (code status [707], gforge [708])
- OAW Orbit Following Monte Carlo, K. Schöpf, OAW (code status [709])

[690] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=BBNBI&SUBMIT=Submit+Query
[691] https://gforge6.eufus.eu/project/bbnbi/
[692] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=NEMO&SUBMIT=Submit+Query
[693] https://gforge6.eufus.eu/project/nemo/
[694] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=SNBI&SUBMIT=Submit+Query
[695] https://gforge6.eufus.eu/project/nbisim/
[696] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_nuclearsim.html
[697] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=RISK&SUBMIT=Submit+Query
[698] https://gforge6.eufus.eu/project/risk/
[699] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=FIDIT&SUBMIT=Submit+Query
[700] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=ASCOT&SUBMIT=Submit+Query
[701] https://gforge6.eufus.eu/project/ascot/
[702] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_ascot.html
[703] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=spot&SUBMIT=Submit+Query
[704] https://gforge6.eufus.eu/project/spot/
[705] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=SELFO-light&SUBMIT=Submit+Query
[706] https://gforge6.eufus.eu/project/selfolight/
[707] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=SOFI&SUBMIT=Submit+Query
[708] https://gforge6.eufus.eu/project/sofi/
[709] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=AWOrbitFollowingMonteCarlo&SUBMIT=Submit+Query

9.4.3 Fast particle codes

9.4.3.1 Codes for fast ion-MHD interactions

- LIGKA, P. Lauber, IPP-Garching (code status [710])
- MARS, G. Vlad, ENEA-Frascati (code status [711], gforge [712])
- HYMAGYC, G. Vlad, ENEA-Frascati (code status [713])
- HMGC, C. Di Troia, ENEA-Frascati (code status [714])
- LEMAN, W.A. Cooper, EPFL-CRPP (code status [715])

9.4.3.2 Runaway electrons

- ARENA, G. Pokol and G. Csepany (code status [716], gforge [717])

9.4.4 Code parameter documentation

9.4.4.1 addICant

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: IC antennas: parameters

Namespace:

9.4.4.1.1 Code parameter tree

Name	Type	Restrictions
/general	--Directory--	Frequency and power
frequency	float	frequency [Hz]
power	float	Coupled power [W]
/straps	--Directory--	Strap specific parameters; strap geometry asnd phasing
nstrap	integer	Number of straps
phase	FloatList	Feeding phase [rad]
phi_centre	FloatList	Toroidal angle of antenna position [rad]
width	FloatList	Strap width [m]
dist2wall	FloatList	Distance strap-wall [m]
ncoord_strap	integer	Number of points to describe the poloidal strap extension (?)
coord_strap_r	FloatList	R coordinate of strap position [m]

[710] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=LIGKA&SUBMIT=Submit+Query

[711] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=MARS&SUBMIT=Submit+Query

[712] https://gforge6.eufus.eu/project/marsgw/

[713] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=HYMAGYC&SUBMIT=Submit+Query

[714] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=HMGC&SUBMIT=Submit+Query

[715] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=LEMAN&SUBMIT=Submit+Query

[716] http://solps-mdsplus.aug.ipp.mpg.de:8080/ITM/specific_code_report?specific_codename=ARENA&SUBMIT=Submit+Query

[717] https://gforge6.eufus.eu/project/arena/

Name	Type	Restrictions
coord_strap_z	FloatList	Z coordinate of strap position [m]
verbosity	nonNegativeInteger	Regulates the amount of standard output. 0 - only error messages; 1 - give warnings messages; 2 - idenitify start and end of code; 3 - Main results; 4 - Detailed logging.

9.4.4.1.2 Locally defined types

Name	Type	Descriptions
FloatList	float	

---

last update: 2015-08-07 by dpc

9.4.4.2 addECant

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.2.1 Code parameter tree

Name	Type	Restrictions
/mirror	--Directory--	
alpha	float	
beta	float	
x0	float	
y0	float	
z0	float	
/beam	--Directory--	
frequency	float	Min(<): 0
power	float	Min(<): 0
i_mode	integer	
w0_x	float	Min(<): 0
w0_y	float	Min(<): 0
dist_w0_x	float	
dist_w0_y	float	
spot_rot	float	
phase_rot	float	
verbosity	nonNegativeInteger	Regulates the amount of standard output. 0 - only error messages; 1 - give warnings messages; 2 - idenitify start and end of code; 3 - Main results; 4 - Detailed logging.

9.4.4.2.2 Locally defined types

Name	Type	Descriptions
nonNegativeInteger	integer	Min(<=): 0

last update: 2015-08-07 by dpc

9.4.4.3 nbifiller

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.3.1 Code parameter tree

Name	Type	Restrictions
number_of_injectors	integer	Number of injector (vector length of mass, charge, power...)
r_inj_surface	FloatList	Major radius at the centre of the injection surface [m]
z_inj_surface	FloatList	Vertical coordinate at the centre of the injection surface [m]
phi_inj_surface	FloatList	Toroidal angle at the centre of the injection surface [rad]
tang_rad	FloatList	Tangency radius (major radius where the central line of a NBI unit is tangent to a circle around the symmetry axis)
angle	FloatList	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane
direction	integer	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
div_vert	FloatList	Beam divergence for a unit in the vertical direction [rad]
div_horiz	FloatList	Beam divergence for a unit in the horizontal direction [rad]
focal_len_hz	FloatList	Horizontal focal length along the beam line [m]
focal_len_vc	FloatList	Vertical focal length along the beam line [m]
n_beamlet	integer	Number of beamlets
r_beamlet	FloatList	Major radius coordinate at the beamlet centre [m]
z_beamlet	FloatList	Vertical coordinate at the beamlet centre [m]
phi_beamlet	FloatList	Toroidal coordinate at the beamlet centre [rad]
tangent_radius_beamlet	FloatList	Tangency radius of the beamlet [m]
angle_beamlet	FloatList	Angle of inclination between the beamlet and the horiontal plane [rad]
power_fraction_beamlet	FloatList	Power fraction beamlet
verbosity	nonNegativeInteger	Regulates the amount of standard output. 0 - only error messages; 1 - give warnings messages; 2 - idenitify start and end of code; 3 - Main results; 4 - Detailed logging.

9.4.4.3.2 Locally defined types

Name	Type	Descriptions
FloatList	float	
int4geometrySelection	integer	Min(<=): 0

last update: 2015-08-07 by dpc

9.4.4.4 writeECant

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace: `https://gforge6.eufus.eu/svn/imp5tool/trunk/cpogenerators/writeECant`

9.4.4.4.1 Code parameter tree

Name	Type	Restrictions
/mirror	--Directory--	
alpha	float	poloidal angle (deg)
beta	float	poloidal angle (deg)
x0	float	x0 (cm) at mirror
y0	float	y0 (cm) at mirror
z0	float	z0 (cm) at mirror
/beam	--Directory--	
frequency	float	frequency (GHz) Min(<): 0
power	float	injected power (MW) Min(<): 0
i_mode	integer	1=OM, 2=XM
w0_x	float	waist (cm) x axis Min(<): 0
w0_y	float	waist (cm) y axis Min(<): 0
dist_w0_x	float	mirror-w0x dist (cm), >0 towards plasma
dist_w0_y	float	mirror-w0y dist (cm), >0 towards plasma
spot_rot	float	spot ellipse rotation (deg)
phase_rot	float	phase ellipse rotation (deg)

last update: 2019-01-31 by g2dpc

9.4.4.5 writeICant

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: IC antennas: parameters

Namespace:

9.4.4.5.1 Code parameter tree

Name	Type	Restrictions
/general	--Directory--	Frequency and power

Name	Type	Restrictions
frequency	float	frequency [Hz]
power	float	Coupled power [W]
/straps	--Directory--	Strap specific parameters; strap geometry asnd phasing
nstrap	integer	Number of straps
phase	FloatList	Feeding phase [rad]
phi_centre	FloatList	Toroidal angle of antenna position [rad]
width	FloatList	Strap width [m]
dist2wall	FloatList	Distance strap-wall [m]
ncoord_strap	integer	Number of points to describe the poloidal strap extension (?)
coord_strap_r	FloatList	R coordinate of strap position [m]
coord_strap_z	FloatList	Z coordinate of strap position [m]

9.4.4.5.2 Locally defined types

Name	Type	Descriptions
FloatList	float	

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last update: 2012-03-28 by tjohnson

9.4.4.6 codeparam2nbi

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace: `https://gforge6.eufus.eu/svn/imp5tool/trunk/cpogenerators/codeparam2nbi`

9.4.4.6.1 Code parameter tree

Name	Type	Restrictions
/injector_setting	--Directory--	
mass	float	Mass of injected species
charge	float	Charge of injected species
power	float	Injected power [W]
power_fraction_2	FloatList	Fraction of power of second harmonic energy injection
power_fraction_3	FloatList	Fraction of power of third harmonic energy injection
energy	float	Nominal ijection energy [eV]
select_preset_geometry	int4geometrySelection	Select geoemtry source; 1: ITER, 2: JET, 0: manual geometry input from xml
/injector_geometry	--Directory--	
r_inj_surface	FloatList	Major radius at the centre of the injection surface [m]
z_inj_surface	FloatList	Vertical coordinate at the centre of the injection surface [m]

Name	Type	Restrictions
phi_inj_surface	FloatList	Toroidal angle at the centre of the injection surface [rad]
tang_rad	FloatList	Tangency radius (major radius where the central line of a NBI unit is tangent to a circle around the symmetry axis)
angle	FloatList	Angle of inclination between a line at the centre of the injection unit surface and the horiontal plane
direction	integer	Direction of the beam seen from above the torus: -1 = clockwise; 1 = counter clockwise
div_vert	FloatList	Beam divergence for a unit in the vertical direction [rad]
div_horiz	FloatList	Beam divergence for a unit in the horizontal direction [rad]
focal_len_hz	FloatList	Horizontal focal length along the beam line [m]
n_beamlet	integer	Number of beamlets
r_beamlet	FloatList	Major radius coordinate at the beamlet centre [m]
z_beamlet	FloatList	Vertical coordinate at the beamlet centre [m]
phi_beamlet	FloatList	Toroidal coordinate at the beamlet centre [rad]
tangent_radius_beamlet	FloatList	Tangency radius of the beamlet [m]
angle_beamlet	FloatList	Angle of inclination between the beamlet and the horiontal plane [rad]
power_fraction_beamlet	FloatList	Power fraction beamlet

9.4.4.6.2 Locally defined types

Name	Type	Descriptions
FloatList	float	
int4geometrySelection	integer	Min(<=): 0

last update: 2019-01-31 by g2dpc

9.4.4.7 gray

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.7.1 Code parameter tree

Name	Type	Restrictions
/code_specific	--Directory--	
i_warm	integer	0=beamtr only, 1=weakly rel, 2=relativistic w/ asympt expansion, 3=rel w/ num integration
i_larm	integer	order of larmor expansion Min(<=): 1
i_eccd	integer	0=no, 1=yes ECCD calculation Min(<=): 0 Max(>=): 11
i_grad	integer	0=raytracing, 1=gaussian beam

Name	Type	Restrictions
n_rad_ray	integer	radial number of rays Min(<=): 1 Max(>=): 31
n_ang_ray	integer	angular numbers of rays Min(<=): 1 Max(>=): 36
rho_max	float	beam truncation (1=last ray at P=e^-2) Min(<): 0
ds	float	beamtracing step (cm) Min(<): 0
n_steps	integer	max number of beamtracing steps Min(<=): 1 Max(>=): 8000
/output_control	--Directory--	
i_rho	integer	0=dpsi, 1=drhop constant in EC profiles
n_proj_ec	integer	Number of points in EC profiles Min(<=): 1
i_step_proj	integer	beam shape data every i_step_proj points Min(<=): 1
i_step_ray	integer	ray data every i_step_ray points Min(<=): 1
/data_adjust	--Directory--	
i_x_pos	integer	-1=lower, 1=upper, 0=no X-point
psi_ne_bnd	float	density boundary (psi_norm) Min(<): 0
spline_psi	float	psi smoothing coefficient Min(<=): 0

last update: 2015-07-06 by tjohnson

9.4.4.8 Toray-FOM

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.8.1 Code parameter tree

Name	Type	Restrictions
/EDATA	--Directory--	
FMU	FloatList	
MODE	StringList	
POWER	FloatList	
X0	FloatList	
Y0	FloatList	

Name	Type	Restrictions
Z0	FloatList	
PHI0	FloatList	
DPHI	FloatList	
DX	FloatList	
THT0	FloatList	
DTHT	FloatList	
DY	FloatList	
NRAY	IntegerList	
NBEAM	integer	
NUMPHI	integer	
NTHETA	integer	
DGRID	float	
DS	float	
RELERR	float	
ABSERR	float	
SMAX	float	
XMAX	float	
YMAX	float	
ZMAX	float	
IDAMP	integer	
ACCUR	float	
MAXIT	integer	
NLRELA	boolean	
NMIN	integer	
NMAX	integer	
NTERM	integer	
NAM	integer	
NPM	integer	
NGM	integer	
NLCDRI	boolean	
MODELC	integer	
EZEFF	float	
NZONES	integer	
B0PHI	float	
RZERO	float	
RSHIFT	float	

Name	Type	Restrictions
ZSHIFT	float	
SEQUIB	string	
SWDENS	string	
SWTEMP	string	
AN	FloatList	
R0	FloatList	
WX0	FloatList	
WY0	FloatList	
NLMESH	boolean	
ANGRID	FloatList	
PARLAB	string	
IDISP	integer	
FDOUT	float	
NLPLAL	boolean	
NLPLOT	boolean	
NLTEXT	boolean	
DENE	FloatList	
TE	FloatList	
QFAC	FloatList	
RANE	FloatList	
RATE	FloatList	
RAQF	FloatList	
NNE	integer	
NTE	integer	
NQF	integer	
DMAX	float	
DMIN	float	
POWD1	float	
POWD2	float	
COFD3	float	
Q0	float	
QA	float	
TMAX	float	
TMIN	float	
POWT1	float	
POWT2	float	

Name	Type	Restrictions
COFT3	float	
RLIM	float	
ISHOT	integer	
TSLICE	float	
NLMIR	boolean	
PHIMIR	float	
DPHMIR	float	
THTMIR	float	
DTHMIR	float	
ANGRFL	float	
MODRFL	integer	
TPSI0	FloatList	
TDPSI	FloatList	
TNWIGL	FloatList	
TPHI0	FloatList	
MODTOR	IntegerList	
MODPOL	IntegerList	
NUMMOD	integer	
NLTURB	boolean	
NLRNDM	boolean	
RMODE	float	
WMODE	float	
MPOL	integer	
NTOR	integer	
PHASE0	float	
NISLAND	integer	
NLISL	boolean	

9.4.4.8.2 Locally defined types

Name	Type	Restrictions
StringList	string	
FloatList	float	
IntegerList	integer	

last update: 2014-12-19 by tjohnson

9.4.4.9 cyrano

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.9.1 Code parameter tree

Name	Type	Restrictions
/cyrano	--Directory--	
Npol	integer	Number of poloidal points
read_details	boolean	Testing equilibrium
total_power	float	Total RF Power [W]

last update: 2015-08-07 by dpc

9.4.4.10 lion

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.10.1 Code parameter tree

Name	Type	Restrictions
COCOS_IN	integer	Expected Cocos number in the input CPOs
COCOS_OUT	integer	Requested Cocos number for the output CPOs
ACHARG	FloatList	The charge of each ion species, given in atomic units. The length of this vector should be NRSPEC
AD	FloatList	Coefficient for polynomial density profile
AHEIGT	float	HEIGHT OF 2-D PLOTS
ALARG	float	WIDTH OF 2-D PLOTS
AMASS	FloatList	The mass of each ion species, given in atomic units. The length of this vector should be NRSPEC
AMASSE	float	ATOMIC MASS OF ELECTRON
ANGLET	FloatList	Toroidal cuts, in degrees.
ANTRAD	float	ANTRAD-1.=DISTANCE ANTENNA-PLASMA
ANTRADMAX	float	
ANTUP	float	UPPER RIGHT POSITION OF TOP/BOTTOM ANTENNA
ANU	float	COLLISIONAL DAMPING NU/OMEGA
ARSIZE	float	SIZE OF ARROWS
ASPCT	float	INVERSE ASPECT RATIO FOR SOLOVEV EQUILIBRIU
ASYMB	float	SIZE OF SYMBOLS
ATE	FloatList	
ATI	FloatList	
ATIP	FloatList	
BNOT	float	MAGNETIC FIELD AT MAGNETIC AXIS (TESLA)

Name	Type	Restrictions
CENO	FloatList	DENSITIES FOR CONST BETA SCAN OF DKE STAB
CENDEN	FloatList	DENSITIES OF ION SPECIES AT MAGN.AXIS (M-3)
CENTE	float	ELECTRON TEMPERATURE AT MAGNETIC AXIS
CENTI	FloatList	ION TEMPERATURES AT MAGN.AXIS (EV)
CENTIP	FloatList	PERP.ION TEMPERATURES AT MAGN. AXIS (EV)
CEOMCI	FloatList	NORMALIZED ION CYCLOTRON FREQUENCIES
CPSRF	float	PSI AT PLASMA SURFACE
CURASY	FloatList	AMPLITUDE OF SIN ANTENNA CURRENT (HELICAL)
CURSYM	FloatList	AMPLITUDE OF ANTENNA CURRENT
DELTA	float	PHENOMENOLOGICAL DAMPING
DELTAF	float	FREQUENCY INCREMENT FOR FREQUENCY TRACE
ELLIPT	float	ELLIPTICITY SQUARED FOR SOLOVEV EQUILIBRIUM
EPSMAC	float	ROUND-OFF ERROR OF COMPUTER
EQALFD	float	PROFILE PARAMETER OF TOTAL MASS DENSITY
EQDENS	float	PROFILE PARAMETER OF TOTAL MASS DENSITY
EQFAST	float	PROFILE PARAMETER OF FAST PARTICLE DENSITY
EQKAPD	float	PROFILE PARAMETER OF TOTAL MASS DENSITY
EQKAPF	FloatList	PROFILE PARAMETER OF FAST PARTICLE DENSITY
EQKAPT	FloatList	Parameter describing the ion temperature profile; TI(PARALLEL) = CENTI(I) * (1.-EQTI(I)*S*S) **EQKAPT(I)
EQKPTE	float	PROFILE PARAMETER OF ELECTRON TEMPERATURE
EQTE	float	PROFILE PARAMETER OF ELECTRON TEMPERATURE
EQTI	FloatList	Parameter describing the ion temperature profiles; TI(PARALLEL) = CENTI(I) * (1.-EQTI(I)*S*S) **EQKAPT(I)
FEEDUP	float	POSITION OF UPPER RIGHT FEED OF T/B ANTENNA
FRAC	FloatList	MASS FRACTION OF ION SPECIES
FRCEN	FloatList	CENTER OF ION DENSITY PROFILE
FRDEL	FloatList	WIDTH OF ION DENSITY PROFILE
FREQCY	float	FREQUENCY OF GENERATOR (HZ)
OMEGA	float	NORMALIZED FREQUENCY (*RMAJOR/ALFV.SPEED)
QIAXE	float	1./Q(AXIS) FOR SOLOVEV EQUILIBRIUM
RMAJOR	float	MAJOR RADIUS (M)
SAMIN	float	INSIDE EDGE OF ANTENNA INSIDE PLASMA (S)
SAMAX	float	OUTSIDE EDGE OF ANTENNA INSIDE PLASMA (S)
SIGMA	float	NORM FACTOR FOR V-THEMAL (IONS)
THANT	FloatList	THANT(J) are angles given in degrees, with values between 0 and 360. THANT(J) are measured from the magnetic axis horizontal.
THANTW	float	THETA OF SADDLE COILS TOROIDAL SECTIONS

Name	Type	Restrictions
TIME_ITM	FloatList	Time for slicing ITM CPO data (s).
VBIRTH	float	THE BIRTH VELOCITY OF FAST PARTICLES [M/S]
WALRAD	float	DISTANCE WALL-MAGNETIC AXIS IN UNITS OF THE MINOR RADIUS IN THE Z=0 PLANE.
WNTDEL	float	THE TOROIDAL WAVENUMBER INCREMENT FOR TOROIDAL WN SCANS
WNTORO	float	THE TOROIDAL WAVE NUMBER.
LENGTH	integer	Number of elements of a matrix block
MANCMP	integer	Number of poloidal wave numbers for helical antennas
MEQ	integer	Equilibrium quantities (i,jchi),js=1,npsi+1 ; EQ(i,jchi,js)
MFL	integer	Lower m value for fourier analysis
MPOLWN	IntegerList	Poloidal wave numbers for helical antenna
NANTSHEET	integer	Number of antenna current sheets. For NANTSHEET>1, the "power at antenna" might be wrong ... and hopefully the "power at plasma surface" is right. The current sheets are placed equidistantly between ANTRAD and ANTRADMAX. The current distribution as function of theta is identical for all sheets.

Name	Type	Restrictions
NANTYP	integer	The variable 'nantyp' selects the type of antenna. (A) NANTYP=-1: "Helical volume antenna". Volume antenna currents in the plasma between s=SAMIN and s=SAMAX, directed along psi=const surfaces, defined by: "j_a = grad psi x grad sigma", with sigma(s,chi,phi) = H(s-SAMIN) * H(SAMAX-s) * (sum[j=1..MANCMP] { CURSYM(j)*cos(MPOLWN(j)*chi) + CURASY(j)*sin(MPOLWN(j)*chi) }) * exp{i*WNTORO*phi}. Note that in this case there is no antenna in the vacuum region: the vacuum contribution to the right- hand side is put to zero by setting SAUTR(j) to zero. (B) NANTYP = 1 ==== "Helical antenna". current sheet at a constant distance of the plasma surface. The currents are harmonic functions of the poloidal angle theta, with poloidal wavenumbers given by 'MPOLWN(J)': SAUTR(THETA) = SUM(J=1 TO MANCMP) OF CURSYM(J)*COS(MPOLWN(J)*THETA) + I*CURASY(J)*SIN(MPOLWN(J)*THETA). There are no feeders. (C) NANTYP = 2 ==== LFS or HFS antenna. Specified by the input parameters THANT(J), J=1,4 and CURSYM(1). THANT(J) ARE ANGLES GIVEN IN DEGREES, WITH VALUES BETWEEN 0 AND 360. THANT(J) ARE MEASURED FROM THE MAGNETIC AXIS HORIZONTAL. THE LFS OR HFS ANTENNA IS A CURRENT SHEET WHICH, BETWEEN THETA = THANT(2) AND THANT(3), IS AT A CONSTANT DISTANCE OF THE PLASMA SURFACE AND CARRIES CONSTANT PURE POLOIDAL CURRENTS : SAUTR(THETA) = CURSYM(1) BETWEEN THETA = THANT(1) AND THETA = THANT(2) AND THETA = THANT(3) AND THETA = THANT(4) ARE THE FEEDERS, WHERE THE DISTANCE FROM THE PLASMA SURFACE INCREASES SMOOTHLY UP TO THE WALL SURFACE. THE LFS ANTENNA EXTENDS ACROSS THE THETA=0 LINE. THEREFORE THANT(3) < THANT(4) < THANT(1) < THANT(2). THE HFS ANTENNA CANNOT CROSS THE THETA=0 LINE. THEREFORE THANT(1) < THANT(2) < THANT(3) < THANT(4). THE SELECTION OF EITHER LFS OR HFS ANTENNA AUTOMATIC : THANT(3).LT.THANT(2) SELECTS LFS ANTENNA THANT(2).GT.THANT(3) SELECTS HFS ANTENNA NOTE THAT WE MUST HAVE THANT(1) < THANT(2) AND THANT(3) < THANT(4). (D) NANTYP = 3 ==== TOP/BOTTOM ANTENNA. THE ANTENNA SURFACE IS UP/ DOWN SYMMETRIC, AT CONSTANT DISTANCE OF THE PLASMA SURFACE BETWEEN THETA = ANTUP AND THETA = PI - ANTUP. THE CURRENTS ARE DEFINED AS FOR NANTYP = 1. (E) NANTYP = 4 ==== SADDLE COIL ANTENNA. THE ANTENNA SURFACE IS THE SAME AS FOR THE HELICAL ANTENNA: CURRENT SHEET AT A DISTANCE ANTRAD-1 OF THE PLASMA SURFACE. THE CURRENT = CURSYM(1) IN [THANT(1),THANT(2)] AND IN [THANT(3),THANT(4)], SMOOTHLY DECAYING TO ZERO NEAR THANT(J).
NANT_ITM	integer	0 (default), 1 if uses antennas_in and antennas_tools to define the antenna geometry
NBCASE	integer	Number of cases for the constant beta scan
NBTYPE	integer	TYPE OF CONSTANT BETA SCAN: 1 == n_i(o) IS VARIED (CEN0()), T_i(o) and T_e(o) as 1/n_i(o), Bo is kept constant. ==> v_A(o) is varied 2 == n_i(o) IS VARIED (CEN0()), Bo as sqrt(n_i(o)), ==> v_A(o) constant T_i(o) and T_e(o) are kept constant 'NLTTMP': .F. ==> SWITCH OFF TTMP BY PUTTING B_PARALLEL TO 0 IN DKE POWER EXPRESSIONS.
NCHI	integer	Number of poloidal intervals all around (please note that in LION this becomes variable NPOL, and that NCHI is defined in lion as the number of poloidal intervals in the upper half-plane)
NCOLMN	integer	Rank of a matrix block
NCONTR	integer	Number of contour lines
NCUT	integer	Number of toroidal cuts for plots
NDA	integer	Matrix a I/O channel
NDARG	integer	Argument for polynomial density profile

Name	Type	Restrictions
NDDEG	integer	Degree of polynomial density profile
NDENS	integer	Selects type of density profile
NDES	integer	R,Z coordinates and normals i/o channel
NDLT	integer	Decomposed matrix L,D,U I/O channel
NDS	integer	Solution vector
NELDTTMP	integer	Type of model for Electron Landau and TTMP damping 1 ==> Additional damping term in epsilon_{perp,perp}, with k_perp from Fast Wave dispersion relation; see WEPSEL in subroutine QUAEQU 2 ==> Additional damping term propto B_parallel, consistent in the weak variational form; see WEPSTTMP in subroutine QUAEQU, CONST1,2,3, etc. Factor 1/2 for combined ELD and TTMP of fast waves
NELDTTMPCOR	integer	Correction (perturbative) to electron Landau and TTMP damping diagnostics 0 (default): do not correct 1 : do the correction; option valid only for NELDTTMP=1; WARNING: the powers will not be consistent
NFAKAP	integer	Number of fast particle density profiles
NHARM	integer	Maximum absolute value of the harmonic number used in constructing the warm plasma dielectric tensor, i.e. the tensor includes components for harmonic numbers from -NHARM to +NHARM.
NPLTYP	integer	2-D GRAPHICAL PLOTS SELECTED IN NLPL05(4): - IF NPLTYP = 1 (DEFAULT): PREPARES PLOT FILES FOR USE WITH THE GRAPHICAL PACKAGE BASPL: WRITES A FILE coords (TAPE18) OF (R,Z) COORDINATES OF MESH CELLS CENTERS AND A FILE fields (TAPE19) OF (R,Z) COMPONENTS OF E, POWER ABSORPTION DENSITY, NORMAL AND BINORMAL COMPONENTS OF E, NORMAL, BINORMAL AND PARALLEL COMPONEMTS OF B. THE PLOTS ARE THEN DONE WITH THE GRAPHICAL PACKAGE BASPL. IT ALLOWS TO MAKE COLOR PLOTS, ARROW PLOTS, CONTOUR PLOTS, ... INTERACTIVELY. - IF NPLTYP = 2 : PLOT FILE FOR USE WITH THE GRAPHICAL PACKAGE explorer: WRITES A FILE corfields (TAPE19) CONTAINING COORDINATES AND FIELDS.
NPOL	integer	Total number of chi intervals
NPRNT	integer	Line-printer output
NPSI	integer	Number of s intervals
NREAD	integer	-documentation missing-
NRSPEC	integer	Number of ion species
NRUN	integer	The number of runs for frequency traces
NSADDL	integer	SELECTS THE TYPE OF SADDLE COIL PHASING IN THE POLOIDAL PLANE. THIS IS DISCARDED UNLESS NANTYP = 4. NSADDL = 0 === ONLY 1 SADDLE COIL ANTENNA IS CONNECTED: BETWEEN THANT(1) AND THANT(2). NSADDL = 1 === 2 SADDLE COILS ARE CONNECTED. THE CONNECTION IS DONE IN OPPOSITE DIRECTIONS FOR THE 2 COILS, THUS DEFINING A PREDOMINANTLY 'M=1' ANTENNA CURRENT COMPONENT: (+-) PHASING. NSADDL = 2 === 2 SADDLE COILS ARE CONNECTED. THE CONNECTION IS DONE IN THE SAME DIRECTION FOR THE 2 COILS, THUS DEFINING A PREDOMINANTLY 'M=2' ANTENNA CURRENT COMPONENT: (++) PHASING. THIS IS THE DEFAULT VALUE.
NSAVE	integer	NAMELIST I/O CHANNEL
NSOURC	integer	NAMELIST I/O CHANNEL

Name	Type	Restrictions
NTEMP	integer	'EQTI()', EQKAPT()', 'NTEMP': SPECIFY THE ION PARALLEL AND PERPENDICULAR TEMPERATURE PROFILES [EV] : NTEMP = -2 ==> PROPORTIONAL TO SQRT(EQUILIBRIUM_PRESSURE) TI(PARALLEL) = CENTI(I) * SQRT (P/P_AXIS) NTEMP = -1 ==> POLYNOMIAL FUNCTION OF S**2 IF NDARG = 1 S IF NDARG = 2 TE/TI()/TIP() = CENTE/CENTI()/CENTIP() * (1. + SUM(J=1,NDDEG) {ATE/ATI/ATIP(J)*ARG**J}) NTEMP # -1 OR -2 ==> TI(PARALLEL) = CENTI(I) * (1.-EQTI(I)*S*S) **EQKAPT(I) (SUBROUTINE TEMPI) NTEMP = -2 ==> PROPORTIONAL TO SQRT(EQUILIBRIUM_PRESSURE) TI(PERP) = CENTIP(I) * SQRT (P/P_AXIS) NTEMP=-1 ==> POLYNOMIAL (SEE ABOVE) NTEMP # -2 ==> TI(PERP) = CENTIP(I) * (1.-EQTI(I)*S*S) **EQKAPT(I) (SUBROUTINE TEMPRP)
NTORSP	integer	The number of toroidal WN's for toroidal WN scans
NUMBER	integer	Run number
NVERBOSE	integer	Select verbosity of output to STDOUT
NVAC	integer	VACUUM QUANTITIES I/O CHANNEL
NLCOLD	boolean	Switch off electron Landau and TTMP damping of fast wave: If .TRUE. then no additionnal term in EPSILON_PERPPERP If .FALSE. then additionnal damping term in EPSILON_PERPPERP. Note that the alfven wave electron landau damping rate is evaluated as a diagnostic of the obtained solution irrespectively of the value of NLCOLE.
NLCOLE	boolean	Switch off electron Landau and TTMP damping of fast wave. If .TRUE. then no additionnal term in EPSILON_PERPPERP If .FALSE. then additionnal damping term in EPSILON_PERPPERP. Note that the alfven wave electron landau damping rate is evaluated as a diagnostic of the obtained solution irrespectively of the value of NLCOLE.
NLDIP	boolean	Selects monopole or dipole antenna. the dipole option has not been programmed yet. DEFAULT: FALSE , i.e. monopole.
NLDISO	boolean	Switch computation and diagnostics of the solution. If NLDISO=.TRUE. then the solution is computed everywhere. Diagnostics are performed, printed and/or plotted according to NLOTP5() and NLPLO5() (see below). With this option (which is the default) running the LION code requires scratch disk space for matrix storage: 96 * NPSI * NPOL**2 (bytes) If NLDISO=.FALSE. then the solution is computed only at the plasma-vacuum interface. The only diagnostic is the total power, which is permanent output. It is correct as long as there is no source inside the plasma. No other diagnostics are perfomed, irrespectively of NLOTP5() and NLPLO5(). With this option the lion code does not use disk space for matrix storage, therefore the turnaround time is reduced.
NLPHAS	boolean	Switch poloidal phase extraction
NLFAST	boolean	If TRUE, then introduce fast particles
NLOTP0	boolean	General switch for line-printer output and graphics
NLOTP1	BooleanList	LINE-PRINTER OUTPUT FOR EQUILIBRIUM QUANTITIES (LION1); LENGTH 5.
NLOTP2	BooleanList	LINE-PRINTER OUTPUT FOR VACUUM QUANTITIES (LION2). (1) : GEOMETRICAL QUANTITIES AT PLASMA SURFACE. (2) : POSITIONS OF PLASMA SURFACE, ANTENNA AND WALL. (3) : ANTENNA CURRENT POTENTIAL VS CHI AND THETA. (4) : NON-HERMICITY OF VACUUM MATRIX. (5) :
NLOTP3	BooleanList	LINE-PRINTER OUTPUT FOR MATRIX CONSTRUCTION (LION3). LENGTH 2.
NLOTP4	BooleanList	LINE-PRINTER OUTPUT FOR MATRIX SOLVER (LION4). (1) : NAMELIST (2) : OHM-VECTOR (3) : SOLUTION AT PLASMA BOUNDARY (4) : (5) :

Name	Type	Restrictions
NLOTP5	BooleanList	LINE-PRINTER OUTPUT FOR SOLUTION DIAGNOSTICS (LION5). (1) : NAMELIST (2) : RADIAL POWER ABSORPTIONS AND OTHER DIAGNOSTICS (3) : EXTENDED OUTPUT OF RADIAL DIAGNOSTICS (4) : 2-D POWER ABSORPTION DENSITY (5) : 2-D POWER ABSORBED IN EACH CELL (6) : 2-D NORMAL COMPONENT OF POYNTING (7) : 2-D PERP COMPONENT OF POYNTING (8) : 2-D PARALLEL COMPONENT OF POYNTING (9) : (10) : 2-D REAL PART OF E-NORMAL (11) : 2-D REAL PART OF E-PERP (12) : 2-D IMAGINARY PART OF E-NORMAL (13) : 2-D IMAGINARY PART OF E-PERP (14) : 2-D POLARAZATION NORM OF E-PLUS SQUARED (15) : 2-D POLARIZATION NORM OF E-MINUS SQUARED (16) : ELECTRIC FIELD ON OUTER EQUATORIAL PLANE (CHI=0) (17) : (18) : POLOIDAL FOURIER COMPONENTS OF E-NORMAL IN THETA FOR M = 'MFL', MFL+1, .., MFU(=MFL+MD2FP1-1) (19) : POLOIDAL FOURIER COMPONENTS OF E-PERP IN THETA (20) : POLOIDAL FOURIER COMPONENTS OF E-NORMAL IN CHI (21) : POLOIDAL FOURIER COMPONENTS OF E-PERP IN CHI (22) : 2-D EPSILON SUB-N-N - N**2 / R**2 (23) : 2-D IMAGINARY PART OF EPSILON SUB N-N (24) : 2-D OMEGA - OMEGACI (25) : SHEAR ALFVEN FREQUENCIES (NEGLECTING TOROIDAL COUPLING; FOR SINGLE SPECIES PLASMA ONLY), FOR M = 'MFL', MFL+1, .., MFU(=MFL+MD2FP1-1) (26) : DENSITY, MINOR AND MAJOR RADIUS, IN NORMALISED AND S.I. UNITS, ON THE OUTER EQUATORIAL PLANE (CHI=0). (31) : POLOIDAL FOURIER COMPONENTS OF B_N IN THETA FOR M = 'MFL', MFL+1, .., MFU(=MFL+MD2FP1-1) (32) : POLOIDAL FOURIER COMPONENTS OF B_B IN THETA (33) : POLOIDAL FOURIER COMPONENTS OF B_PAR IN THETA (34) : POLOIDAL FOURIER COMPONENTS OF B_N IN CHI (35) : POLOIDAL FOURIER COMPONENTS OF B_B IN CHI (36) : POLOIDAL FOURIER COMPONENTS OF B_PAR IN CHI THE 2-D TABLES GIVE THE VALUES ON THE CENTERS OF THE CELLS OF THE (S,CHI) MESH. A LINE IN THE TABLE CORRESPONDS TO A PSI = CONST SURFACE. IT GOES FROM CHI=0 TO CHI=PI IN THE UPPER HALF-PLANE AND FROM CHI=PI TO CHI=2*PI IN THE LOWER HALF-PLANE. THE VALUES ARE NORMALIZED TO THEIR MAXIMUM VALUE. THE FIRST AND THE LAST LINES OF THE TABLES GIVE THE POLOIDAL NUMBERING OF THE CELLS. THE FIRST COLUMN GIVES THE RADIAL NUMBERING OF THE CELLS. ALL OUTPUT IS IN CODE-NORMALIZED UNITS UNLESS SPECIFIED.
NLPLO5	BooleanList	GRAPHICAL OUTPUT FOR LION5 (1) : GENERAL SWITCH FOR GRAPHICAL PLOTS (2) : RADIAL POWER ABSORPTION AND FLUX (3) : FAST ION BETA_CRITICAL AND P_DK(S). WRITES TABLES ON TAPE26 AND TAPE27 => MATLAB (plotfast.m AND plotpdks(.,.).m) (4) : 2-D GRAPHICAL PLOTS : - IF NPLTYP = 1 (DEFAULT): PREPARES PLOT FILES FOR USE WITH THE GRAPHICAL PACKAGE BASPL: WRITES A FILE coords (TAPE18) OF (R,Z) COORDINATES OF MESH CELLS CENTERS AND A FILE fields (TAPE19) OF (R,Z) COMPONENTS OF E, POWER ABSORPTION DENSITY, NORMAL AND BINORMAL COMPONENTS OF E, NORMAL, BINORMAL AND PARALLEL COMPONEMTS OF B. THE PLOTS ARE THEN DONE WITH THE GRAPHICAL PACKAGE BASPL. IT ALLOWS TO MAKE COLOR PLOTS, ARROW PLOTS, CONTOUR PLOTS, ... INTERACTIVELY. - IF NPLTYP = 2 : PLOT FILE FOR USE WITH THE GRAPHICAL PACKAGE explorer: WRITES A FILE corfields (TAPE19) CONTAINING COORDINATES AND FIELDS. (5) : POLOIDAL FOURIER COMPONENTS (CABS) OF E_n, E_b, B_n, B_b AND B_//. WRITES A TABLE ON TAPE25 => => MATLAB (plotfour.m).
NLTTMP	boolean	Switch on/off TTMP by putting B_parallel to 0 in DKE power expressions.
NITMOPT	integer	Uses ITM database: 0 (default) = no, 1 =reads from ITM, 10=writes on ITM, 11=reads and writes, 22=LION run as module within Kepler
NITMRUN	IntegerList	ITM run number
NITMSHOT	IntegerList	ITM shot number

9.4.4.10.2 Locally defined types

Name	Type	Descriptions
IntegerList	integer	
FloatList	float	
BooleanList	boolean	

last update: 2015-08-07 by dpc

9.4.4.11 icdep

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: ICRF wave absorption parameters for the waves-cpo generating code icdep

Namespace:

9.4.4.11.1 Code parameter tree

Name	Type	Restrictions
/absorption_geometry	--Directory--	Geometric parameters describing the absorption profiles
width_rho	float	Width of the absorption in rho_tor_norm
width_r	float	Width of the absorption in R [m]
width_z	float	Width of the absorption in Z [m]
/power_partition	--Directory--	Partition of the launched power absorbed on the different species
fract_eld_ttmp	float	Fraction of the power absorbed through Electron Landau Damping and Transit Time Magnetic Pumping
fract_coll2electrons	float	Fraction of the fast ion absorbed power that is transferred to the electrons
/wave_quantities	--Directory--	Properties of the wave field
n_phi	integer	Toroidal mode number
k_theta	float	Wave vector component in the poloidal (theta) direction [1/m]
k_rho	float	Wave vector component in the radial (rho) direction [1/m]
ratio_Eplus_Eminus	float	Ratio of the magnitude between E_plus and E_minus, i.e. the left and right hand polarised components
phase_Eplus_Eminus	float	Complex phase difference between E_plus and E_minus = log(E_plus / E_minus) [rad]

last update: 2012-03-28 by tjohnson

9.4.4.12 nuclearsim

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for Nuclearsim (nuclear reaction rates for thermal plasmas)

Namespace:

9.4.4.12.1 Code parameter tree

Name	Type	Restrictions
/select_output_species	--Directory--	
source_from_neutrons	boolean	If true, then the source rate of fusion/fission produced neutrons will be calculated
source_from_H	boolean	If true, then the source rate of fusion/fission produced protons will be calculated
source_from_D	boolean	If true, then the source rate of fusion/fission produced deutrons will be calculated
source_from_T	boolean	If true, then the source rate of fusion/fission produced tritons will be calculated
source_from_He3	boolean	If true, then the source rate of fusion/fission produced Helium-3 will be calculated
source_from_He4	boolean	If true, then the source rate of fusion/fission produced Helium-4 will be calculated
/output	--Directory--	Defining the formatting of the output distsource CPO
/output/markers	--Directory--	Defining the formatting of the output distsource markers
n_toroidal	integer	Number of grid point in the toroidal angle; used only if Markers are initialised on a grid.
n_angle1	integer	Number of grid point in the assimuthal angle of the spherical velocity space coordinate system (not field aligned); used only if Markers are initialised on a grid.
n_angle2	integer	Number of grid point in the non-assimuthal angle of the spherical velocity space coordinate system (not field aligned); used only if Markers are initialised on a grid.
n_skip_r	integer	Define the R-grid from equilibrium%profiles_2d%r(n_skip_r:n_skip_r:end) grid; used only if Markers are initialised on a grid.
n_skip_z	integer	Define the z-grid from equilibrium%profiles_2d%z(n_skip_z:n_skip_z:end) grid; used only if Markers are initialised on a grid.
initalisation_scheme	initalisation_scheme_domain	1: Initialise on a grid.
verbosity	integer	Specifies the verbosity of the output to stdout and stderr.

9.4.4.12.2 Locally defined types

Name	Type	Descriptions
initalisation_scheme_domain	integer	Min(<=): 1

last update: 2014-12-19 by tjohnson

9.4.4.13 nemo

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for Nemo (neutral beam deposition code)

Namespace:

9.4.4.13.1 Code parameter tree

Name	Type	Restrictions
/select_output_resolution	--Directory--	
n_out_profiles	integer_minInclusive_2	Resolution of the output 1D profiles
n_pitch_resol	integer_minInclusive_2	Resolution of the output pitch angle profile
n_output_2d_r	integer_minInclusive_2	R-resolution of the output (R,Z) 2D profiles
n_output_2d_z	integer_minInclusive_2	Z-resolution of the output (R,Z) 2D profiles
n_output_2d_f	integer_minInclusive_1	PHI-resolution of the output (R,Z,PHI) profiles
debug_mode	integer_minmaxInclusive_01	Flag for debug mode (0 = normal execution, 1 = debug mode)

9.4.4.13.2 Locally defined types

Name	Type	Descriptions
integer_minInclusive_1	integer	Min(<=): 1
integer_minInclusive_2	integer	Min(<=): 2
integer_minmaxInclusive_01	integer	Min(<=): 0 Max(>=): 1

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last update: 2015-08-07 by dpc

9.4.4.14 StixReDist

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Namespace:

9.4.4.14.1 Code parameter tree

Name	Type	Restrictions
/stix_redist	--Directory--	
max_iterations	integer	Maximum number of iterations per magnetic surface
tolerance_Teff	float	Tolerance on Teff evolution to stop the iterative scheme
N_velocity_grid	integer	Number of points in velocity grid
target_ions	integer	Switch to choose between iterating on all ion species(=0) or on a single one(=ion_index)
use_internal_power	boolean	Switch for computing RF power absorption internally(=1) or importing it from CPOs(=0)
total_power	float	Total RF Power [W] (only used when use_internal_power=1)

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last update: 2014-12-19 by tjohnson

9.4.4.15 nbisim

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for hcd2coresource

Namespace:

9.4.4.15.1 Code parameter tree

Name	Type	Restrictions
verbosity	nonNegativeInteger	Regulates the amount of standard output. 1 - only error messages and warnings; 2 - idenitify start and end of code; 3 - Main results; 4 - Detailed logging.

9.4.4.15.2 Locally defined types

Name	Type	Descriptions
positiveInteger	integer	Min(<=): 1
nonNegativeInteger	integer	Min(<=): 0

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last update: 2015-08-07 by dpc

9.4.4.16 risk

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for Risk (Fokker-Planck code)

Namespace:

9.4.4.16.1 Code parameter tree

Name	Type	Restrictions
n_out_profiles	integer_minInclusive_2	Resolution of the output 1D profiles
dx_resolution	float_minInclusive_dot0001	Normalized velocity resolution (v/vth)
fac_implicit	float_minInclusive_dot1	Implicit/explicit contribution for integration scheme (Crank-Nicholson or so)
debug_mode	integer_minmaxInclusive_01	Flag for debug mode (0 = normal execution, 1 = debug mode)

9.4.4.16.2 Locally defined types

Name	Type	Descriptions
integer_minInclusive_2	integer	Min(<=): 2
integer_minmaxInclusive_01	integer	Min(<=): 0 Max(>=): 1
float_minInclusive_dot0001	float	Min(<=): 0.0001
float_minInclusive_dot1	float	Min(<=): 0.1

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last update: 2015-08-07 by dpc

9.4.4.17 rfof

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: RFOF code parameters

Namespace:

9.4.4.17.1 Code parameter tree

Name	Type	Restrictions
/rfof_parameters	--Directory--	RFOF code parameters
/rfof_parameters/rfof_core_param	--Directory--	Contains all fields needed when coupling to RFOF
/rfof_parameters/rfof_core_param/assumptions	--Directory--	List of optional physics assumptions.
assume_static_resonance_position_during_RF_kick	boolean	If true then the RF intraction induces no spatial motion of the orbit during the wave-particle interaction (however the new drift orbit may have a different spatial extent)
use_drift_velocity_in_doppler_shift	boolean	If true then the Doppler shift due to the drift velocity is included in the resonance condition
use_parallel_velocity_in_doppler_shift	boolean	If true then the Doppler shift due to the parallel velocity is included in the resonance condition
assume_zero_larmor_radius_in_KPERPxRHO	boolean	If "true", then the finite larmor radius effects in the wave particle interaction are neglected
assume_kpar_is_nphi_over_R	boolean	If "true" then the parallel wave number of is nphi/R, otherwise the exact value is used
assume_zero_order_FLR_for_Pphi	boolean	Neglect finite larmor radius (FLR) corrections to P_phi
width_of_rf_resonance_layer	float	Width of the resonance layer as a fraction of the momentary major radius
/rfof_parameters/rfof_core_param/bounding_box	--Directory--	Bounding box in the poloidal cross section.
Rmin	float	Minimum major radius of the bounding box [m]
Rmax	float	Maximum major radius of the bounding box [m]
Zmin	float	Minimum vertical coordinate of the bounding box [m]
Zmax	float	Maximum vertical coordinate of the bounding box [m]
/rfof_parameters/rfof_core_param/resonance_memory	--Directory--	
nStoreTimes	integer	The number of time points to be stored in the resonance memory. These are used to extrapolate the orbit to the next upcoming resonance.
/rfof_parameters/rfof_core_param/IO_control	--Directory--	Controlling the output written to file
start_time_event_output	float	Time at which to start generating event-output files
output__2D_RZ_out	boolean	If true, then 2D output in (R,Z) will be generated for the density of abosorbed power and torque
NRedges_2DgridRZ	integer	Number of horizontal grid points in the 2D (R,z) grid
NZedges_2DgridRZ	integer	Number of vertical grid points in the 2D (R,z) grid
output__Orbit	boolean	If true, then output of the full orbits wil be generated and stored to file
MAX_number_of_points_stored_in_the_Orbit	integer	Maximum number of orbit points written to file

Name	Type	Restrictions
output__rf_kicks	boolean	If true, then a list of rf-kicks will be generated containing the location and strength of the kick
MAX_number_of_points_stored_in_rf_kick	integer	Maximum number of rf-kick points written to file
output__resonace_predictions	boolean	If true, then a list of rf-resonance preditions will be generated containing the present location and predicted location of the next resonance
MAX_number_of_points_stored_in_resonance_memory	integer	Maximum number of rf-resonance prediction points written to file
output__efield_normalization	boolean	If true, then a list of electric field normalization factors to file
MAX_number_of_points_stored_in_the_efield_normalization	integer	Maximum number of electric field normalizations (time-vector) written to output file
/rfof_parameters/rfof_core_param/quasilinear	--Directory--	Parameters describing the quasilinear model
MAX_relative_energy_kick	float	The I-perp kicks cannot be larger than this fraction of the input I-perp
/rfof_parameters/rfof_plasma_param	--Directory--	
/rfof_parameters/rfof_plasma_param/composition	--Directory--	
n_species	integer	Number of plasma ion species
amn	RFOF_FloatList	Atomic mass number
zn	RFOF_FloatList	Nuclear charge in atomic units
zion	RFOF_FloatList	Ionic charge in atomic units
/rfof_parameters/rfof_wave_param	--Directory--	
select_wave_from	integer	Select where the wave field should be taken from. 0 : wave generated from the data in parametric_wave 1 : wave read from ascii version of ITM cpos, written using write_cpo in the write_structures module. Filename is specified in ascii_itm_wave/filename_ascii_itm_wave.
/rfof_parameters/rfof_wave_param/parametric_wave	--Directory--	
nfreq	integer	Number of RF frequencies
nnphi	integer	Number of toroidal modes per frequency
RFpower	RFOF_FloatList	Power provided by the RF wave field
EfieldNormalisation	RFOF_FloatList	Normalisation factor for the strength of the RF wave field
ratioEPlusOverEMinus	RFOF_FloatList	Ratio between the left- and right-hand polarized electric wave field components
freq	RFOF_FloatList	RF wave frequency [Hz]
nphi	RFOF_IntegerList	Toroidal mode number
kperp	RFOF_FloatList	Perpendicular wave number [1/m]
verticalCentre	RFOF_FloatList	Vertical centre of the Gaussian RF wave field [m]
verticalWidth	RFOF_FloatList	Vertical width of the Gaussian RF wave field [m]

Name	Type	Restrictions
filename_lion_fields	string	Filename for lion corfields-file
/rfof_parameters/rfof_wave_param/ascii_itm_wave	--Directory--	
filename_ascii_itm_wave	string	Name of input file containing the ITM cpo waves in ascii format written using write_cpo in the write_structures module
/rfof_parameters/rfof_wrapper_param	--Directory--	
/rfof_parameters/rfof_wrapper_param/time_stepping	--Directory--	
NtimeSteps	nonNegativeInteger	Number of time steps (of standalone RFOF orbit tracer).
dt	RFOF_FloatPositive	Length of each time step [s].
nStoreOutTimes	integer	Number of time steps between which the output is accumulated before being written to file.
/rfof_parameters/rfof_wrapper_param/magnetic_field	--Directory--	
R0	float	Major radius of the plasma torus [m].
aminor	float	Minor radius of the plasma torus [m].
B0	float	Magnetic field strength att the magnetic axis [T].
q	float	Safety factor of the magnetic field.
/rfof_parameters/rfof_wrapper_param/markers	--Directory--	Defining the initial conditions for the markers in the RFOF wrapper
species_index	integer	Species index within the vector of particle species in the rfof_plasma_param/composition/*(), where * is amn, zn and zion. species_index has be in the range [1,rfof_plasma_param/composition/n_species]
weight	float	Marker weight
R	float	Initial major radius position of the marker [m]
z	float	Initial veritical position of the marker [m]
phi	float	Initial toroidal angle of the marker [rad]
charge	float	Charge of the marker [au]
mass	float	Mass of the marker [au]
E	float	Energy of the marker [eV]
xi	float	Pitch-angle of the marker [-]

9.4.4.17.2 Locally defined types

Name	Type	Descriptions
RFOF_FloatPositive	float	Min(<): 0.0
RFOF_FloatList	float	
RFOF_IntegerList	integer	

9.4.4.18 spot

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for Spot (Fokker-Planck code)

Namespace:

9.4.4.18.1 Code parameter tree

Name	Type	Restrictions
nperstep	integer_minInclusive_1	Number of markers to be created every big time step
nout1d	integer_minInclusive_2	Resolution of output 1D-profiles
nout2dr	integer_minInclusive_2	R Resolution of output 2D-profiles
nout2dz	integer_minInclusive_2	Z Resolution of output 2D-profiles
ksolver	integer_minmaxInclusive_12	Flag for internal solver: 1 = (R,Z) coordinates, 2 = (PSI,THETA) Boozer coordinates
bigwidth	float_minmaxInclusive_dot0001_dot01	Duration of a big time step (sec) for source update, RFOF E-field normalisation, etc
icrh_heating	integer_minmaxInclusive_01	Flag for ICRH heating (0 = NO, 1 = YES)
debug_mode	integer_minmaxInclusive_01	Flag for debug mode (0 = normal execution, 1 = debug mode)
source_flag	integer_minmaxInclusive_14	Flag for source option (0=Spot-generated-alphas, 2=Spot-generated-thermals-for-ICRH, 3=Spot-generated-NBI, 4=marker-source)
icrh_ion_mass	float_minmaxInclusive_mendeleiv	Mass of followed ICRH-accelerated ion (if any)
icrh_ion_charge	float_minmaxInclusive_mendeleiv	Charge of followed ICRH-accelerated ion (if any)
kforce_xml	integer_minmaxInclusive_01	Flag to force the use of XML input file for ICRF heating (when = 1)

9.4.4.18.2 Locally defined types

Name	Type	Descriptions
integer_minInclusive_1	integer	Min(<=): 1
integer_minInclusive_2	integer	Min(<=): 2
integer_minmaxInclusive_12	integer	Min(<=): 1 Max(>=): 2
integer_minmaxInclusive_14	integer	Min(<=): 1 Max(>=): 4
integer_minmaxInclusive_01	integer	Min(<=): 0 Max(>=): 1
float_minmaxInclusive_dot0001_dot01	float	Min(<=): 1.e-4 Max(>=): 0.1
float_minmaxInclusive_mendeleiv	float	Min(<=): 1.0 Max(>=): 300.0

9.4.4.19 spot_rfof

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for Spot (Fokker-Planck code)

Namespace:

9.4.4.19.1 Code parameter tree

Name	Type	Restrictions
nperstep	integer_minInclusive_1	Number of markers to be created every big time step
nout1d	integer_minInclusive_2	Resolution of output 1D-profiles
nout2dr	integer_minInclusive_2	R-Resolution of output 2D-profiles
nout2dz	integer_minInclusive_2	Z-Resolution of output 2D-profiles
ksolver	integer_minmaxInclusive_1_2	Flag for internal solver: 1 = (R,Z) coordinates, 2 = (PSI,THETA) Boozer coordinates
bigwidth	float_minmaxInclusive_0.0001_to_0.1	Duration of a big time step (sec) for source update, RFOF E-field normalisation, etc
icrh_heating	integer_minmaxInclusive_0_1	Flag for ICRH heating (0 = NO, 1 = YES)
debug_mode	integer_minmaxInclusive_0_1	Flag for debug mode (0 = normal execution, 1 = debug mode)
source_flag	integer_minmaxInclusive_1_4	Flag for source option (0=Spot-generated-alphas, 2=Spot-generated-thermals-for-ICRH, 3=Spot-generated-NBI, 4=marker-source)
icrh_ion_mass	float_minmaxInclusive	Mass of followed ICRH-accelerated ion (if any)
icrh_ion_charge	float_minmaxInclusive	Charge of followed ICRH-accelerated ion (if any)
kforce_xml	integer_minmaxInclusive_0_1	Flag to force the use of XML input file for ICRF heating (when = 1)
/rfof_parameters	--Directory--	RFOF code parameters
/rfof_parameters/rfof_core_param	--Directory--	Contains all fields needed when coupling to RFOF
/rfof_parameters/rfof_core_param/assumptions	--Directory--	List of optional physics assumptions.
assume_static_resonance_position_during_RF_kick	boolean	If true then the RF intraction induces no spatial motion of the orbit during the wave-particle interaction (however the new drift orbit may have a different spatial extent)
use_drift_velocity_in_doppler_shift	boolean	If true then the Doppler shift due to the drift velocity is included in the resonance condition
use_parallel_velocity_in_doppler_shift	boolean	If true then the Doppler shift due to the parallel velocity is included in the resonance condition
assume_zero_larmor_radius_in_KPERPxRHO	boolean	If "true", then the finite larmor radius effects in the wave particle interaction are neglected
assume_kpar_is_nphi_over_R	boolean	If "true" then the parallel wave number of is nphi/R, otherwise the exact value is used
assume_zero_order_FLR_for_Pphi	boolean	Neglect finite larmor radius (FLR) corrections to P_phi
width_of_rf_resonance_layer	float	Width of the resonance layer as a fraction of the momentary major radius
/rfof_parameters/rfof_core_param/bounding_box	--Directory--	Bounding box in the poloidal cross section.

Name	Type	Restrictions
Rmin	float	Minimum major radius of the bounding box [m]
Rmax	float	Maximum major radius of the bounding box [m]
Zmin	float	Minimum vertical coordinate of the bounding box [m]
Zmax	float	Maximum vertical coordinate of the bounding box [m]
/rfof_parameters/rfof_core_param/resonance_memory	--Directory--	
nStoreTimes	integer	The number of time points to be stored in the resonance memory. These are used to extrapolate the orbit to the next upcoming resonance.
/rfof_parameters/rfof_core_param/IO_control	--Directory--	Controlling the output written to file
start_time_event_output	float	Time at which to start generating event-output files
output__2D_RZ_out	boolean	If true, then 2D output in (R,Z) will be generated for the density of abosorbed power and torque
NRedges_2DgridRZ	integer	Number of horizontal grid points in the 2D (R,z) grid
NZedges_2DgridRZ	integer	Number of vertical grid points in the 2D (R,z) grid
output__Orbit	boolean	If true, then output of the full orbits wil be generated and stored to file
MAX_number_of_points_stored_in_the_Orbit	integer	Maximum number of orbit points written to file
output__rf_kicks	boolean	If true, then a list of rf-kicks will be generated containing the location and strength of the kick
MAX_number_of_points_stored_in_rf_kick	integer	Maximum number of rf-kick points written to file
output__resonace_predictions	boolean	If true, then a list of rf-resonance preditions will be generated containing the present location and predicted location of the next resonance
MAX_number_of_points_stored_in_resonance_memory	integer	Maximum number of rf-resonance prediction points written to file
output__efield_normalization	boolean	If true, then a list of electric field normalization factors to file
MAX_number_of_points_stored_in_the_efield_normalization	integer	Maximum number of electric field normalizations (time-vector) written to output file
/rfof_parameters/rfof_core_param/quasilinear	--Directory--	Parameters describing the quasilinear model
MAX_relative_energy_kick	float	The I-perp kicks cannot be larger than this fraction of the input I-perp
/rfof_parameters/rfof_plasma_param	--Directory--	
/rfof_parameters/rfof_plasma_param/composition	--Directory--	
n_species	integer	Number of plasma ion species
amn	RFOF_FloatList	Atomic mass number
zn	RFOF_FloatList	Nuclear charge in atomic units
zion	RFOF_FloatList	Ionic charge in atomic units

Name	Type	Restrictions
/rfof_parameters/rfof_wave_param	--Directory--	
select_wave_from	integer	Select where the wave field should be taken from. 0 : wave generated from the data in parametric_wave 1 : wave read from ascii version of ITM cpos, written using write_cpo in the write_structures module. Filename is specified in ascii_itm_wave/filename_ascii_itm_wave.
/rfof_parameters/rfof_wave_param/parametric_wave	--Directory--	
nfreq	integer	Number of RF frequencies
nnphi	integer	Number of toroidal modes per frequency
RFpower	RFOF_FloatList	Power provided by the RF wave field
EfieldNormalisation	RFOF_FloatList	Normalisation factor for the strength of the RF wave field
ratioEPlusOverEMinus	RFOF_FloatList	Ratio between the left- and right-hand polarized electric wave field components
freq	RFOF_FloatList	RF wave frequency [Hz]
nphi	RFOF_IntegerList	Toroidal mode number
kperp	RFOF_FloatList	Perpendicular wave number [1/m]
verticalCentre	RFOF_FloatList	Vertical centre of the Gaussian RF wave field [m]
verticalWidth	RFOF_FloatList	Vertical width of the Gaussian RF wave field [m]
filename_lion_fields	string	Filename for lion corfields-file
/rfof_parameters/rfof_wave_param/ascii_itm_wave	--Directory--	
filename_ascii_itm_wave	string	Name of input file containing the ITM cpo waves in ascii format written using write_cpo in the write_structures module
/rfof_parameters/rfof_wrapper_param	--Directory--	
/rfof_parameters/rfof_wrapper_param/time_stepping	--Directory--	
NtimeSteps	nonNegativeInteger	Number of time steps (of standalone RFOF orbit tracer).
dt	RFOF_FloatPositive	Length of each time step [s].
nStoreOutTimes	integer	Number of time steps between which the output is accumulated before being written to file.
/rfof_parameters/rfof_wrapper_param/magnetic_field	--Directory--	
R0	float	Major radius of the plasma torus [m].
aminor	float	Minor radius of the plasma torus [m].
B0	float	Magnetic field strength att the magnetic axis [T].
q	float	Safety factor of the magnetic field.
/rfof_parameters/rfof_wrapper_param/markers	--Directory--	Defining the initial conditions for the markers in the RFOF wrapper

Name	Type	Restrictions
species_index	integer	Species index within the vector of particle species in the rfof_plasma_param/composition/*(), where * is amn, zn and zion. species_index has be in the range [1,rfof_plasma_param/composition/n_species]
weight	float	Marker weight
R	float	Initial major radius position of the marker [m]
z	float	Initial veritical position of the marker [m]
phi	float	Initial toroidal angle of the marker [rad]
charge	float	Charge of the marker [au]
mass	float	Mass of the marker [au]
E	float	Energy of the marker [eV]
xi	float	Pitch-angle of the marker [-]

9.4.4.19.2 Locally defined types

Name	Type	Descriptions
integer_minInclusive_1	integer	Min(<=): 1
integer_minInclusive_2	integer	Min(<=): 2
integer_minmaxInclusive_12	integer	Min(<=): 1 Max(>=): 2
integer_minmaxInclusive_14	integer	Min(<=): 1 Max(>=): 4
integer_minmaxInclusive_01	integer	Min(<=): 0 Max(>=): 1
float_minmaxInclusive_dot0001_dot01	float	Min(<=): 1.e-4 Max(>=): 0.1
float_minmaxInclusive_mendeleiv	float	Min(<=): 1.0 Max(>=): 300.0
RFOF_FloatPositive	float	Min(<): 0.0
RFOF_FloatList	float	
RFOF_IntegerList	integer	

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last update: 2015-08-07 by dpc

9.4.4.20 ascot

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for ASCOT

Namespace: `http://solps-mdsplus.aug.ipp.mpg.de/wsvn/ascot/`

9.4.4.20.1 Code parameter tree

Name	Type	Restrictions
/nml_runtol	--Directory--	
options_tmax	FloatPositive	Particle tracing time (s)

Name	Type	Restrictions
binlim_dtglob	FloatNonNegative	Time step of ensemble time step model (s, 0 = disable model)
options_tinter	float	Time interval of particle data output (s, 0 to output every point, < 0 for no output)
options_cpumax	FloatPositive	Maximum allowed CPU time per particle (s) (0 = no CPU limit)
options_toler	FloatPositive	Relative error tolerance for guiding centre step
options_tbfrac	positiveInteger	Default time step is bounce time divided by this
options_colaac	FloatPositive	Allowed relative change in energy or absolute change in pitch per time step due to collisions
options_eleaac	FloatPositive	Allowed relative change in parallel velocity per time step due to the toroidal or parallel electric field
options_difaac	FloatPositive	Allowed change in rho per time step relative to the banana width due to radial diffusion
options_elhaac	FloatPositive	Allowed relative change in parallel momentum per time step caused by parallel momentum diffusion due to LH wave (for electrons)
options_ilhaac	FloatPositive	Allowed relative change in perpendicular energy per time step, caused by LH wave (for ions)
options_icraac	FloatPositive	Allowed relative change in energy per time step caused by IC wave (for ions)
options_intact	IntegerList	Particle-background interaction mechanisms (1=active, 0=inactive): intact(1) - toroidal (1) or parallel (2) electric field; intact(2) - pitch collisions; intact(3) - energy collisions; intact(4) - anomalous radial diffusion: 0 = no radial diffusion, 1 = constant diffusion coefficient, 2 = microturbulence model by Hauff et al; intact(5) - parallel momentum diffusion caused by LH wave (for electrons); intact(6) - perpendicular energy and radial diffusion caused by LH wave (for ions); intact(7) - velocity component change caused by IC wave (for ions); intact(8) - charge exchange (CX) collisions; intact(9)...intact(10) not in use.
options_quitcr	FloatList	End criteria (1=active, 0=inactive): quitcr(1) - time maximum per particle exceeded; quitcr(2) - CPU time maximum per particle exceeded; quitcr(3) - quitcr(3) * local thermal energy reached; quitcr(4) - hit the wall or a divertor target; quitcr(5) - escaped from plasma; quitcr(6) - quitcr(6) orbits calculated; quitcr(7) - quitcr(7) keV particle energy reached; quitcr(8)...quitcr(10) not in use
options_acc	IntegerBinary	Interaction acceleration on/off (1/0)
options_relat	IntegerBinary	Relativistic / classical treatment (1/0)za
options_icoord	IntegerBinary	Coordinate system: 0 = Cartesian everywhere, 1 = Boozer inside plasma, Cartesian outside
options_imeth	IntegerBinary	GC orbit integration method (only affects integration in Boozer coordinates, Cartesian always uses RK5): 0 = 4th order Runge-Kutta, no error monitoring; 1 = 5th order Runge-Kutta with error monitoring; (2 = Bulirsch-Stoer with error monitoring - not tested!)
options_orbitmode	IntegerBinary	
options_wallmode	Integer012	
options_regenr	Integer012	
options_divorb	IntegerBinary	
options_iseed	positiveInteger	
options_iskip1	nonNegativeInteger	
options_iskip2	nonNegativeInteger	
maxwcol_pfilim	FloatPositive	

Name	Type	Restrictions
options_dynamic	IntegerBinary	
options_reversedTime	boolean	
/nml_epcpar	--Directory--	
binlim_epcr1	FloatNonNegative	
binlim_epcr2	FloatNonNegative	
binlim_iepcrh	positiveInteger	
binlim_epct1	FloatMax360	
binlim_epct2	FloatPositiveMax360	
binlim_iepcth	positiveInteger	
/nml_dists	--Directory--	
distrib_idists	IntegerBinaryList	
distrib_ntime	positiveInteger	
distrib_R1	FloatNonNegative	
distrib_R2	FloatNonNegative	
distrib_nR	nonNegativeInteger	
distrib_z1	float	
distrib_z2	float	
distrib_nz	nonNegativeInteger	
distrib_rho1	FloatNonNegative	
distrib_rho2	FloatNonNegative	
distrib_nrho	nonNegativeInteger	
distrib_nvrho	nonNegativeInteger	
distrib_theta1	FloatMax360	
distrib_theta2	FloatPositiveMax360	
distrib_ntheta	nonNegativeInteger	
distrib_nvtheta	nonNegativeInteger	
distrib_vmgn1	FloatNonNegative	
distrib_vmgn2	FloatNonNegative	
distrib_nvmagn	nonNegativeInteger	
distrib_vpar1	float	
distrib_vpar2	float	
distrib_nvpar	nonNegativeInteger	
distrib_vperp1	FloatNonNegative	
distrib_vperp2	FloatNonNegative	
distrib_nvperp	nonNegativeInteger	

Name	Type	Restrictions
distrib_npitch	nonNegativeInteger	
/nml_tokamk	--Directory--	
ripple_ncoil	nonNegativeInteger	
ripple_coil2	Float0to1	
machine_ept	float	
machine_divr	FloatList8	
machine_divz	FloatList8	
/nml_eradl	--Directory--	
erprof_eronof	Integer01234	
erprof_eront	FloatNonNegative	
erprof_ermin	float	
erprof_ermax	float	
erprof_errho1	FloatNonNegative	
erprof_errho2	FloatNonNegative	
erprof_errho3	FloatNonNegative	
/nml_ersc	--Directory--	
erself_ierson	IntegerBinary	
erself_idpol	IntegerBinary	
erself_idvisc	IntegerBinary	
erself_iersri	IntegerBinary	
erself_iersro	IntegerBinary	
erself_ersrh1	FloatNonNegative	
erself_ersrh2	FloatNonNegative	
erself_ersvim	FloatNonNegative	
/nml_andiff	--Directory--	
andiff_rholim1	float	
andiff_rholim2	float	
andiff_dcoeff	float	
andiff_lambda_c	float	
andiff_lambda_V	float	
andiff_lambda_B	float	
andiff_B_r_scale	float	
andiff_V_E	float	

Name	Type	Restrictions
andiff_logon	integer	
/nml_nbi	--Directory--	
nbi_rfocus	float	
nbi_alfa	float	
nbi_betav	float	
nbi_betah	float	
nbi_nlambda	float	
/nml_lhwave	--Directory--	
lhoper_freq	float	
lhoper_kpar	float	
lhoper_kper	float	
lhoper_epar	float	
lhoper_eper	float	
lhoper_vprg	FloatNonNegative	
lhoper_rho0	Float0to1	
lhoper_rhod	Float0to1	
lhoper_symm	Integer012	
/nml_icwave	--Directory--	
icoper_icspec	IntegerMin2	
icoper_icrho	Float0to1	
icoper_icside	IntegerBinary	
icoper_icepos	float	
icoper_iceneg	float	
icoper_ickpar	float	
icoper_ickper	float	
icoper_icl	FloatNonNegative	
icoper_icn	Integer12	
/nml_cxdiag	--Directory--	
npacx_nsl	Integer0to15	
npacx_rpiv	FloatList	
npacx_zpiv	FloatList	
npacx_hoff	FloatList	
npacx_lfoc	FloatList	

Name	Type	Restrictions
npacx_bhor	FloatList	
npacx_aver	FloatList	
npacx_dlt	FloatList	
npacx_nwin	Integer0to15	
npacx_ene1	FloatList	
npacx_ene2	FloatList	
npacx_tmo1	float	
npacx_tmo2	float	
npacx_3d	IntegerBinary	
npacx_the1	FloatList	
npacx_the2	FloatList	
/nml_mhd	--Directory--	
mhd_on	IntegerBinary	
mhd_num	integer	
mhd_modetype	IntegerBinaryList	
mhd_mpol	IntegerList	
mhd_ntor	IntegerList	
mhd_amp	FloatList	
mhd_omg	FloatList	
mhd_dom	FloatList	
mhd_phase	FloatList	
mhd_rho	FloatList	
mhd_alpha	FloatList	
mhd_beta	FloatList	
mhd_gamma	FloatList	
mhd_c0	FloatList	
mhd_k1	FloatList	
mhd_k2	FloatList	
/nml_debug	--Directory--	
debug_orbits	boolean	
debug_writeseeds	boolean	
debug_nbilog	boolean	
debug_BpolFromPsi	boolean	
debug_endstate	boolean	
debug_cpu	boolean	

Name	Type	Restrictions
/nml_cachesort	--Directory--	
options_cachesort	boolean	
/nml_mgmodel	--Directory--	
mgmodel_model	IntegerBinary	
mgmodel_B0	float	
mgmodel_I0	float	
mgmodel_alpha	float	
mgmodel_a	float	
mgmodel_adistance	float	
mgmodel_R0	float	
mgmodel_z0	float	
mgmodel_machineR0	float	
mgmodel_machinez0	float	
/rfof_core_param	--Directory--	
/rfof_core_param/assumptions	--Directory--	List of optional physics assumptions.
simplify__static_resonance_position_during_RF_kick	boolean	If true then the RF intraction induces no spatial motion of the orbit during the wave-particle interaction (however the new drift orbit may have a different spatial extent)
simplify__drift_velocity_no_effect_on_resonance	boolean	If true then all term in the resonance condition involving the drift velocity are neglected
simplify__parallel_velocity_no_effect_on_resonance	boolean	If true then all term in the resonance condition involving the parallel velocity are neglected
simplify__assume_zero_larmor_radius_in_KPERPxRHO	boolean	If "true", then the finite larmor radius effects in the wave particle interaction are neglected
simplify__kpar_is_nphi_over_R	boolean	If "true" then the parallel wave number of is nphi/R, otherwise the exact value is used
width_of_rf_resonance_layer	float	Width of the resonance layer as a fraction of the momentary major radius
/rfof_core_param/bounding_box	--Directory--	Bounding box in the poloidal cross section.
Rmin	float	Minimum major radius of the bounding box [m]
Rmax	float	Maximum major radius of the bounding box [m]
Zmin	float	Minimum vertical coordinate of the bounding box [m]
Zmax	float	Maximum vertical coordinate of the bounding box [m]
/rfof_core_param/resonance_memory	--Directory--	
nStoreTimes	integer	The number of time points to be stored in the resonance memory. These are used to extrapolate the orbit to the next upcoming resonance.

Name	Type	Restrictions
/rfof_core_param/IO_control	--Directory--	Controlling the output written to file
start_time_event_output	float	Time at which to start generating event-output files
output__2D_RZ_out	boolean	If true, then 2D output in (R,Z) will be generated for the density of abosorbed power and torque
output__Orbit	boolean	If true, then output of the full orbits wil be generated and stored to file
MAX_number_of_points_stored_in_the_Orbit	integer	Maximum number of orbit points written to file
output__rf_kicks	boolean	If true, then a list of rf-kicks will be generated containing the location and strength of the kick
MAX_number_of_points_stored_in_the_rf_kick	integer	Maximum number of rf-kick points written to file
output__resonace_predictions	boolean	If true, then a list of rf-resonance preditions will be generated containing the present location and predicted location of the next resonance
MAX_number_points_stored_in_resonance_memory	integer	Maximum number of rf-resonance prediction points written to file

9.4.4.20.2 Locally defined types

Name	Type	Descriptions
IntegerBinary	integer	Min(<=): 0 Max(>=): 1
IntegerList	integer	
IntegerList10	IntegerList	Length: 10
IntegerBinaryList	IntegerBinary	
IntegerBinaryList20	IntegerBinaryList	Length: 20
FloatList	float	
FloatList8	FloatList	Length: 8
FloatList10	FloatList	Length: 10
FloatPositive	float	Min(<): 0.0
FloatNonNegative	float	Min(<=): 0.0
FloatMax360	float	Max(>=): 360.0
FloatPositiveMax360	float	Min(<=): 0.0 Max(>=): 360.0
Float0to1	float	Min(<=): 0.0 Max(>=): 1.0
IntegerMin2	integer	Min(<=): 2
Integer012	integer	Min(<=): 0 Max(>=): 2
Integer12	integer	Min(<=): 1 Max(>=): 2
Integer01234	integer	Min(<=): 0 Max(>=): 4
Integer0to15	integer	Min(<=): 0 Max(>=): 15

last update: 2012-03-28 by tjohnson

9.4.4.21 hcd2coresource

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for hcd2coresource

Namespace:

9.4.4.21.1 Code parameter tree

Name	Type	Restrictions
verbosity	positiveInteger	Regulates the amount of standard output; higher values gives more output

9.4.4.21.2 Locally defined types

Name	Type	Descriptions
positiveInteger	integer	Min(<=): 1

last update: 2015-08-07 by dpc

9.4.4.22 hcd2corefast

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

Description: Code parameters for hcd2coresource

Namespace:

9.4.4.22.1 Code parameter tree

Name	Type	Restrictions
verbosity	positiveInteger	Regulates the amount of standard output; higher values gives more output

9.4.4.22.2 Locally defined types

Name	Type	Descriptions
positiveInteger	integer	Min(<=): 1

last update: 2015-08-07 by dpc

last update: 2019-01-31 by g2dpc

9.5 Datastructures (CPOs)

This page give you overview information on the datastructures (CPOs (29)) that are most relevant for IMP5.

Detailed information on all ITM datastructures can be found here (5.6).

CPOs (29) for which IMP5 are responsible.

CPO	Description
antennas (type (7.9.3.1.20), fortran (7.9.3.2.3))	The antennas CPO describe of antennas used for IC, EC and LH heating and current drive. The data stored in the CPO includes both hardware descriptions, like the antenna geometry, settings like the power launched and the frequency. The antennas CPO may include the descriptions of multiple systems in each frequency range, i.e. we may have several IC antennas, several LH launcher and several EC systems.
launchs (type (7.9.3.1.37), fortran (7.9.3.2.20))	*WARNING, this CPO is under restructuring and the present version should NOT be used! (2014-03-17)* The idea of this CPO is to describe the coupling of LH waves.
waves (type (7.9.3.1.56), fortran (7.9.3.2.39))	The waves CPO describe wave fields, primarily those used for heating and current drive. The wave fields can be described in two diffferent form; either as a global wave fiedl calculated at every point in the devise, or as a set of beams, or rays.
nbi (type (7.9.3.1.42), fortran (7.9.3.2.25))	The NBI CPO describes the NBI (neutral beam injection) system. The main purpose of the CPO is to be used to calculate the neutrals that reach the plasma. The CPO includes both variable setting like the acceleration energy and the input power, as well as a description of the beam geometry. The geometry is separated into two levels, one describing including so called "beamlet groups" that form a type of focussed beam with a focal length. The second level is that every beamlet group includes individual "beamlets". Each of these beamlets originate form a small hole in the grounded grid. Since all particles coming out of one such hole has been accelerated by somewhere between 50keV and 1.5 MeV, they all have almost the same velocity vector. The tiny variations in this velocity vector has a Gaussian shape and is specified as the beamlet divergence.
distsource (type (7.9.3.1.29), fortran (7.9.3.2.12))	Source terms for kinetic plasma model; e.g. the source of neutral beam particles or alpha particles. This data should come from a beam deposition code and should serve as input to kinetic codes, e.g. Fokker-Planck codes.
distribution (type (7.9.3.1.28), fortran (7.9.3.2.11))	Distribution functions of particles involved in the heating. E.g. the velocity distribution function of fast ions/electrons driven by RF, or the distribution function of alpha particles, or beam injected ions. The CPO should be filled in by a kinetic code and provide heating and provide, e.g. heating and current drive for transport solvers.

Additional material about the IMP5 CPOs:

IMP5 CPOs (pdf [718]) (ppt [719]) from the General ITM meeting september 2010 in Lisbon.

CPOs (29) commonly used by IMP5 codes.

CPO	Description
equilibrium (type (7.9.3.1.32), fortran (7.9.3.2.15))	Magnetic equilibrium.
coreprof (type (7.9.3.1.24), fortran (7.9.3.2.7))	Profiles of densities, temperatures, flows,... in the plasma core.
coreprof (type (7.9.3.1.24), fortran (7.9.3.2.7))	Profiles of impurity densities... in the plasma core.
coreprof (type (7.9.3.1.24), fortran (7.9.3.2.7))	New in 4.10b! Fluid moments of non-thermal particles, e.g. densities, parallel and perpendicular pressure etc. The data is derived from the distribution CPO; it summarises the distribution CPO for e.g. transport codes, MHD codes, but can also be used in wave codes to simulate the wave absorption on fast-ion populations.
coresource (type (7.9.3.1.25), fortran (7.9.3.2.8))	Sources of particles, momentum and heat to ETS.

The IMP5 only uses certain parts of the CPOs defined above, see list of cpos-fields used by IMP5 codes (9.5.1).

9.5.1 CPOs used by IMP5

Here follows a preliminary lists of the cpo-fields used by most, but not all, IMP5 codes.

To identify the importance of a cpo-field there is a priority index in the table below. Here are the definitions of priority indexes:

0 = undefined priority
1 = high priority; required by imp5 actors
2 = low priority; recalculated in the code if not provided

[718] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[719] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.ppt

3 = non-mandatory, but used when provided (e.g. plasma may be used, but if the field is not provided it assumed to be zero)

In the equilibrium CPO:

Priority	CPO-field	Used by codes	Comments
1	equilibrium(*)%global_param%mag_axis%position%r	Gray (9.4.1.1), Mars (9.4.3.1), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), TORIC (9.4.2.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%global_param%mag_axis%position%z	Gray (9.4.1.1), Mars (9.4.3.1), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), TORIC (9.4.2.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%global_param%mag_axis%bphi	Mars (9.4.3.1), BBNBI (9.4.2.3), TORIC (9.4.2.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%global_param%mag_axis%q	Mars (9.4.3.1), EVE (9.4.2.1), TORIC (9.4.2.1), FWTOR (9.4.1.6),	
1	equilibrium(*)%global_param%toroid_field%r0	FPSIM (9.4.2.2), Gray (9.4.1.1), Mars (9.4.3.1)	
1	equilibrium(*)%global_param%toroid_field%b0	FPSIM (9.4.2.2), Gray (9.4.1.1), Mars (9.4.3.1)	
1	equilibrium(*)%global_param%psi_bound	Gray (9.4.1.1), Mars (9.4.3.1), BBNBI (9.4.2.3), EVE (9.4.2.1)	
1	equilibrium(*)%global_param%psi_ax	Gray (9.4.1.1), EVE (9.4.2.1), Mars (9.4.3.1)	
1	equilibrium(*)%global_param%i_plasma	Nemo (9.4.2.3), BBNBI (9.4.2.3), Mars (9.4.3.1)	
1	equilibrium(*)%profiles_1d%rho_tor	Partically all IMP5 codes (9.4).	
1	equilibrium(*)%profiles_1d%psi	Partically all IMP5 codes (9.4).	
1	equilibrium(*)%profiles_1d%q	Gray (9.4.1.1), Mars (9.4.3.1), Toray-FOM (9.4.1.1), EVE (9.4.2.1), TORIC (9.4.2.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%profiles_1d%f_dia	FPSIM (9.4.2.2), Gray (9.4.1.1), Mars (9.4.3.1), Toray-FOM (9.4.1.1), EVE (9.4.2.1), TORIC (9.4.2.1)	
1	equilibrium(*)%profiles_1d%ffprime	Mars (9.4.3.1)	
1	equilibrium(*)%profiles_1d%pressure	Mars (9.4.3.1)	
1	equilibrium(*)%profiles_1d%pprime	Mars (9.4.3.1)	
1	equilibrium(*)%profiles_1d%r_inboard	FPSIM (9.4.2.2)	
1	equilibrium(*)%profiles_1d%r_outboard	FPSIM (9.4.2.2)	
1	equilibrium(*)%profiles_1d%vprime	Nemo (9.4.2.3)nbisim (9.4.2.5)	
1	equilibrium(*)%profiles_1d%dpsidrho_tor	Nemo (9.4.2.3)	
1	equilibrium(*)%profiles_1d%volume	Gray (9.4.1.1), Nemo (9.4.2.3), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1)	
1	equilibrium(*)%profiles_1d%phi	TORIC (9.4.2.1)	
1	equilibrium(*)%profiles_1d%ftrap	Required by pratically all waves codes	
2	equilibrium(*)%profiles_1d%b_av	Pratically all ECRH codes (9.4.1)	
2	equilibrium(*)%profiles_1d%b_min	Pratically all ECRH codes (9.4.1)	
2	equilibrium(*)%profiles_1d%b_max	Pratically all ECRH codes (9.4.1)	
1	equilibrium(*)%profiles_2d%grid_type	All codes using 2D-profiles information	
1	equilibrium(*)%profiles_2d%grid%dim1	Gray (9.4.1.1) with (R,Z) grid, Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%profiles_2d%grid%dim2	Gray (9.4.1.1) with (R,Z) grid, Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%profiles_2d%r	Gray (9.4.1.1) with (rho,theta) grid and Nemo (9.4.2.3) with alt. coordinantes no 1	
1	equilibrium(*)%profiles_2d%z	Gray (9.4.1.1) with (rho,theta) grid and Nemo (9.4.2.3) with alt. coordinantes no 1	
1	equilibrium(*)%profiles_2d%psi	Gray (9.4.1.1) with (rho,theta) grid, Nemo (9.4.2.3) with alt. coordinantes no 1, BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
0	equilibrium(*)%profiles_2d%theta		
1	equilibrium(*)%profiles_2d%br	Gray (9.4.1.1), Nemo (9.4.2.3), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%profiles_2d%bz	Gray (9.4.1.1), Nemo (9.4.2.3), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%profiles_2d%bphi	Gray (9.4.1.1), Nemo (9.4.2.3), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%coord_sys%position%r	Nemo (9.4.2.3) with alt. coordinantes no 1, Mars (9.4.3.1), TORIC (9.4.2.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%position%z	Nemo (9.4.2.3) with alt. coordinantes no 1, Mars (9.4.3.1), TORIC (9.4.2.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%grid%dim1	Gray (9.4.1.1), Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%grid%dim2	Gray (9.4.1.1), Mars (9.4.3.1), EVE (9.4.2.1)	

Priority	CPO-field	Used by codes	Comments
1	equilibrium(*)%coord_sys%jacobian	Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%g_11	Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%g_12	Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%g_22	Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%coord_sys%g_33	Mars (9.4.3.1), EVE (9.4.2.1)	
1	equilibrium(*)%eqgeometry%a_minor	Nemo (9.4.2.3), Mars (9.4.3.1), BBNBI (9.4.2.3), FWTOR (9.4.1.6)	
1	equilibrium(*)%eqgeometry%geom_axis%r	Nemo (9.4.2.3), Mars (9.4.3.1), Torbeam (9.4.1.1), BBNBI (9.4.2.3), Toray-FOM (9.4.1.1), EVE (9.4.2.1), TORIC (9.4.2.1), FWTOR (9.4.1.6)	
1	equilibrium(*)%eqgeometry%boundary%r	Gray (9.4.1.1), TORIC (9.4.2.1)	
1	equilibrium(*)%eqgeometry%boundary%z	Gray (9.4.1.1), TORIC (9.4.2.1)	
1	equilibrium(*)%eqgeometry%xpts%r	BBNBI (9.4.2.3)	
1	equilibrium(*)%eqgeometry%xpts%z	BBNBI (9.4.2.3)	
1	equilibrium(*)%eqgeometry%elongation	BBNBI (9.4.2.3), FWTOR (9.4.1.6)	

In the coreprof CPO:

Priority	CPO-field	Used by codes	Comments
1	coreprof(*)%rho_tor	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%rho_tor_norm	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%psi%value	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%ni%value	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%ne%value	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%Ti%value	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%Te%value	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%composition%amn	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%composition%zn	Pratically all IMP5 codes (9.4)	
1	coreprof(*)%composition%zion	Pratically all IMP5 codes (9.4)	

In the waves CPO:

Priority	CPO-field	Used by codes	Comments
1	waves(*)%coherentwave(*)%global_param%frequency	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%global_param%power_tot	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%global_param%type	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%global_param%ntor	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%global_param%pow_i	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%composition%amn	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%composition%zion	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%grid_1d%rho_tor	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%grid_1d%psi	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%grid_2d%theta	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%profiles_1d%powd_ntor_i	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%profiles_2d%powd_ntor_i	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%fullwave%e_plus	FPSIM (9.4.2.2)	
1	waves(*)%coherentwave(*)%fullwave%e_minus	FPSIM (9.4.2.2)	

In the distsource CPO:

Priority	CPO-field	Used by codes	Comments
1	distsource(*)%composition%amn	NBISIM (9.4.2.5)	
1	distsource(*)%composition%zn	NBISIM (9.4.2.5)	
1	distsource(*)%source(*)%src_spec	NBISIM (9.4.2.5)	
1	distsource(*)%source(*)%profiles_1d%rho_tor	NBISIM (9.4.2.5)	
3	distsource(*)%source(*)%profiles_1d%rho_tor_norm	NBISIM (9.4.2.5)	
1	distsource(*)%source(*)%profiles_1d%psi	NBISIM (9.4.2.5)	
1	distsource(*)%source(*)%profiles_1d%pow_den%value	NBISIM (9.4.2.5)	

Priority	CPO-field	Used by codes	Comments
1	distsource(*)%source(*)%profiles_1d%src_rate%value	NBISIM (9.4.2.5)	
0	distsource(*)%source(*)%source_grid%grid_info%grid_coord	NBISIM (9.4.2.5)	If either `...%profiles_1d%pow_den%value` or `...%profiles_1d%src_rate%value` are NOT associated, only then is `...%grid_info%grid_coord` used.
0	distsource(*)%source(*)%source_grid%grid_info%discrete_dims	NBISIM (9.4.2.5)	If either `...%profiles_1d%pow_den%value` or `...%profiles_1d%src_rate%value` are NOT associated, only then is `...%grid_info%discrete_dims` used.
0	distsource(*)%source(*)%source_grid%dim<X>	NBISIM (9.4.2.5)	If either `...%profiles_1d%pow_den%value` or `...%profiles_1d%src_rate%value` are NOT associated, only then is `...%source_grid%dim<X>` used.

Contact Thomas Johnson (johnso@kth.se) for comments and suggestions.

---

last update: 2011-12-22 by tjohnson

9.5.2 Development of the IMP5 cpos for 4.10a

Below is a list of changes to the IMP5 CPOs and the state of the implementation and testing at the time of the last update (see the bottom of the page).

Contact persons: Thomas Johnson (4831).

9.5.2.1 Overview of main changes

There are two main changes for the 4.10a release:

- We have introduced the complex-grid structure (so called grid-cpo) for multidimensional arrays in waves, distsource and distribution. However, the old structures are kept to simplify the transition (since the 4.10a version is only for testing).
- A set of identifiers has been added to trace the dataflow from `antennas/nbi/nuclear reactions` to `waves/distsource/distribution`.

9.5.2.2 distsource

- Replace `source_mark` with the field `markers` of the complexType `weighted_marker`.

  Implemented : YES

- Replace `source_grid` with the complexgrid based representation `source_rate`.
  The new representation has two fields `grid` and `source_rate`.
  NOTE: `source_grid` has been kept to get a smooth transition to using `source_rate`.

  Implemented : YES

- The field `gyrosrc_type` previously appeared in several places along, but has now been replaced by a single field `distsource()%source()%gyro_type`.

  Fields removed: `distsource()%source()%source_grid%gyrosrc_type` and `distsource()%source()%source_mark%g`
  .

  Implemented : YES

- New element `source_id` for both identifying the origin of the source, and for identifying this source when used in `distribution`.

  See also the translation table (**??**). of the identifier part of source_id.

  Documentation: *List of identifiers for the source, in term the type and name of the injectors and reactions that provide the source, along with an index separating sources with the same name and type. Possible content for* *type: NBI or reaction names (see specifications on the ITM webpages); the field name should either be taken from* `nbi(*)%nbi_unit(*)%name` *, or describe the populations involved in the reaction, e.g. fast-thermal; the field index should separate different sources generated from a single injector or reaction. Vector(n_injectors_and_reactions)*

Background : The 4.09a version of the distsource CPO did not clearly stated where the source came from, i.e. it was not possible to trace from which NBI injector or nuclear reactions the source originated. For this reason the `source_id` has been introduced.

Implemented : YES

- A new complexType `line_src_prof` added for representating line-sources as profiles on a monotonic rho-coordinate.
  The source is described by its spatial location (R, Z, rho, theta) and its velocity components (energy, pitch, angular momentum).

  Note: Usually beamlines enters the plasma on the low field side and exits on the high field side. In this case the line has to be split into two (or more) line-sources, thus the lines-source is an array.

  Note: Primarily added to allow a simple coupling between NEMO and RISK

  Implemented : YES

9.5.2.3 distribution

- Two new elements `waves_id` and `source_id` for both identifying the wave fields and sources affecting the distribution function in `distri_vec` .
  Documentation for `wave_id` **:** *List all waves affecting the distribution, as specified in waves(*)%coherentwave(*)%wave_id*

  See also the translation table (**??**) for the identifier part of wave_id.

  Documentation for `source_id` **:** *List all neutral beam injectors and reactions contributing to the source, as specified in distsource(*)%source(*)%source_id. Vector(n_injectors_and_reactions)* See also the translation table (**??**) for the identifier part of source_id.

  Implemented : YES

- Change description of distri_vec. In 4.09a `distri_vec` is described as a vector of length `n_spec` , which is misleading. `distri_vec` should be a vector over sources, where each source can only represent a single species, while one species can appear in many sources. In the new version `distri_vec` is a vector of length `ndistri_vec`

  Implemented : YES

- Add new field `distribution(*)%distri_vec(*)%gyro_type` to separate gyro-centre and full orbit representations.

  Implemented : YES

- Add new field `distribution(*)%distri_vec(*)%global_param%n_particles` for the total number of particles in the distribution

  Implemented : YES

- Add new field `distribution(*)%distri_vec(*)%profiles_1d%dens` for the particle density of the distribution

  Implemented : YES

9.5.2.4 waves

- New element `wave_id` for both identifying the antenna driving a coherent-wave, and for identifying a coherent-wave when used in `distribution` and `coresource` .
  Documentation: *Identifier for the coherent-wave, in terms of the type and name of the antenna driving the wave and an index separating waves driven by the same antenna. Possible types: EC/LH/IC; the field name should include the name of the antenna as specified in either antennas(*)%ec_antenna%name, antennas(*)%ic_antenna%name, or antennas(*)%lh_antenna%name; the field index should separate different waves generated from a single antenna.* See also the translation table (**??**) for the identifier part of wave_id.

  Implemented : YES

- Replace `waves()%coherentwave()%local` and `waves()%coherentwave()%pol_decomp` with a grid-cpo representation.
The new representation has two fields: `grid` and `e_components` .
All wave field components previously available in `local` and `pol_decomp` are available in the `e_components` .

Note : `waves()%coherentwave()%local` and `waves()%coherentwave()%pol_decomp` are both kept to simplify the transition from 4.09b.

Implemented : YES

9.5.2.5 antennas

- Replace the array `antenna_unit` by introducing arrays of the fields `antenna_ec` , `antenna_lh` and `antenna_ic` .

  Implemented : YES

- Suggestion: adopt for compatability with reflectometry, e.g. allowing modulation of the frequency.

  Implemented : NO

- **Question** : Are the machine description fields in the `ec_antenna` correctly labeled, or should the machine description fields be more primitive/closer to the hardware parameters?

9.5.2.6 nbi

- Add a name for each injector unit.

  Implemented : YES

9.5.2.7 launchs

- **Question** : Is this CPO needed?
- Suggestion: Correct the name from launchs to e.g. launchers

  Implemented : NO

9.5.2.8 orbit

- **Question** : Is this CPO needed?
- Correct typo: orbit/orbitt_id; new name orbit/com

  Implemented : YES

- Change parameter name: orb_glob_dat; new name global_param

  Implemented : YES

- Change parameter name: orb_trace; new name trace

  Implemented : YES

- New parameter: toroidal angle

  Implemented : YES

- Replaced word *ion* with word *particle* throghout the documentation.

  Implemented : YES

9.5.2.9 utilities

- New complexType `weighted_markers` added, describing an array of weighted markers in N-dimension. This complexType is used in both distsource and distribution to represent the marker representations of both particle source and particle distributions.

  Implemented : YES

- New complexType `enum_instant` added, describing an array of weighted markers in N-dimension. Specifies a specific enumerated instans of an object or process in term of its type, name and an index. E.g. the input could be the wave with index=2, selected from all waves launched by the antenna with name=A2, where the antenna is of type=IC.

  Implemented : YES

---

last update: 2012-07-13 by tjohnson

9.5.3 The machine description shot database

This section describes a solution for how to automate the reading of machine description CPOs in Kepler. At some point ISIP will come with an elegant solution, but the ITM needs something right now (written 20130315!). Here one proposal is presented that has been implemented in Kepler.

The basis of the present solution is a new "Machine Description Shot Database" that is stored in the svn-repository

```
https://gforge6.eufus.eu/svn/itmshared/branches/machineDescriptionDatabase/
```

The actual data is stored in an xml-file:

```
xml/machineDescriptionDatabase.xml
```

formatted accoring to the schema:

```
xml/machineDescriptionDatabase.xsd
```

To types of tools have so far been developed to extract data from the database; an xslt-translation sheeth

```
xsl/machineDescriptionDatabase.xsl
```

and a python code based on xml-dom

```
xsl/*.py
```

The python code is built to translate from a tokamak-name and a tokamak-shot number to a UAL database element, described by the shot/run/user. This python code can then be used in the PythonActor in Kepler find the correct machine description files.

9.5.3.1 Composite actor for reading MD-shots

A composite actor has been developed that uses the database and a tokamak-shot and a tokamak-name, to read machine descriptions. The actor can be found in the machineDescriptionDatabase-repository

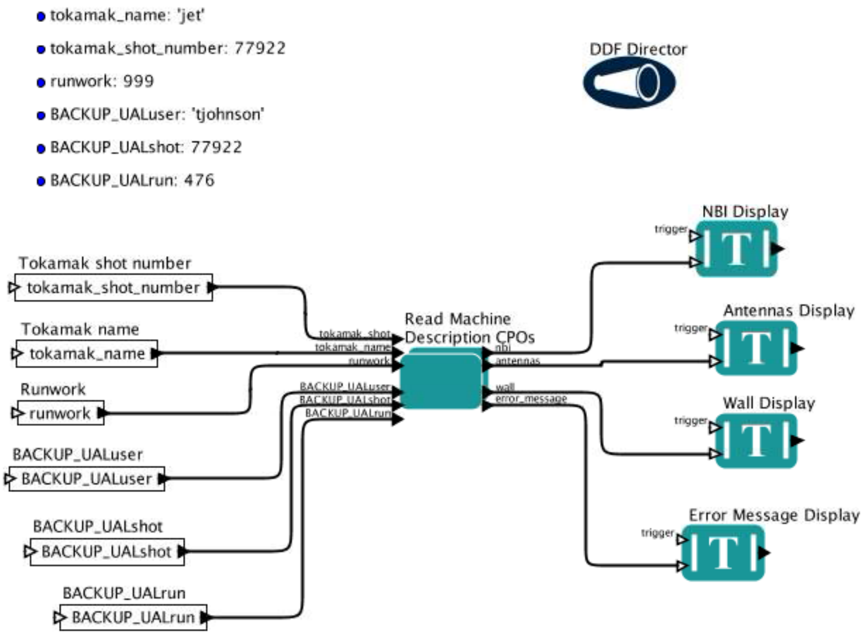
```
https://gforge6.eufus.eu/svn/itmshared/branches/machineDescriptionDatabase/
```

in the workflow xml-file

```
WORKFLOW/readFromMachineDescriptionDataBase.xml
```

9.5.3.1.1 Walk through the "Composite actor for reading MD-shots"

The workflow is an "as simple as possible" example of how to use the composite actor. Here the input parameters are defined and the composite actor is called. The returned data is then printed, see figure below.



Opening up the composite actor we find the PythonActor that generates the UAL-database info user/shot/run. The data is then forwarded to another composite actor `Select UAL run` , which also takes the input `BACKUP_UALuser` , `BACKUP_UALshot` and `BACKUP_UALrun` . The actor checks that the output from the Python is a valid run-number. If not, then return the `BACKUP_UAL...` data. Once the user/shot/run is decided these values are passed to the `UALinit` that reads the machine description CPOs from the UAL. See figures below.

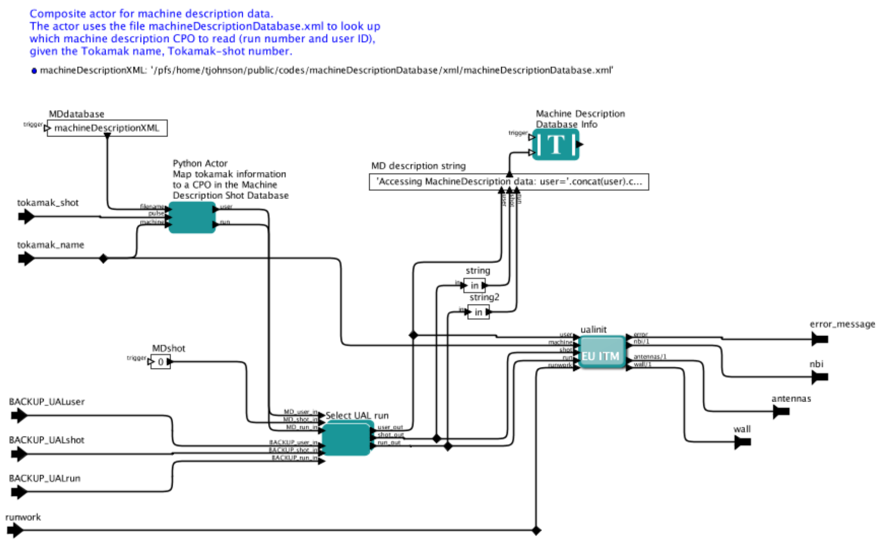
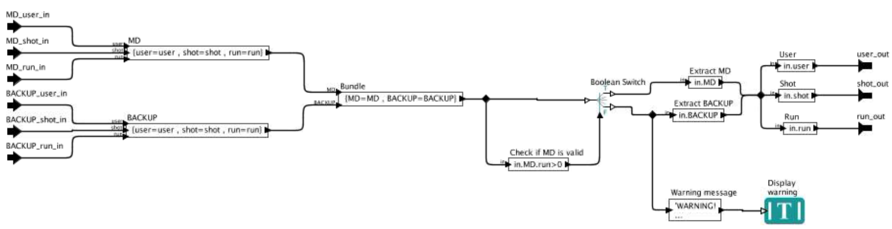


Figure below shows the structure of the `Select UAL run` composite actor.



last update: 2019-01-31 by g2dpc

last update: 2014-03-17 by tjohnson

9.6 Workflows

IMP5 have developed a number of Kepler (29) workflows.

Official workflows are stored under the GFORGE (29) project KeplerWorkflows [720]. To export a local copy of the IMP5 workflows, version 4.08a, 4.08b or 4.09a, from the repository

```
svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.08a/imp5
```

```
svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.08b/imp5
```

```
svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.09a/imp5
```

More internal workflows useful for the IMP5 can be stored on the Gateway in the directory

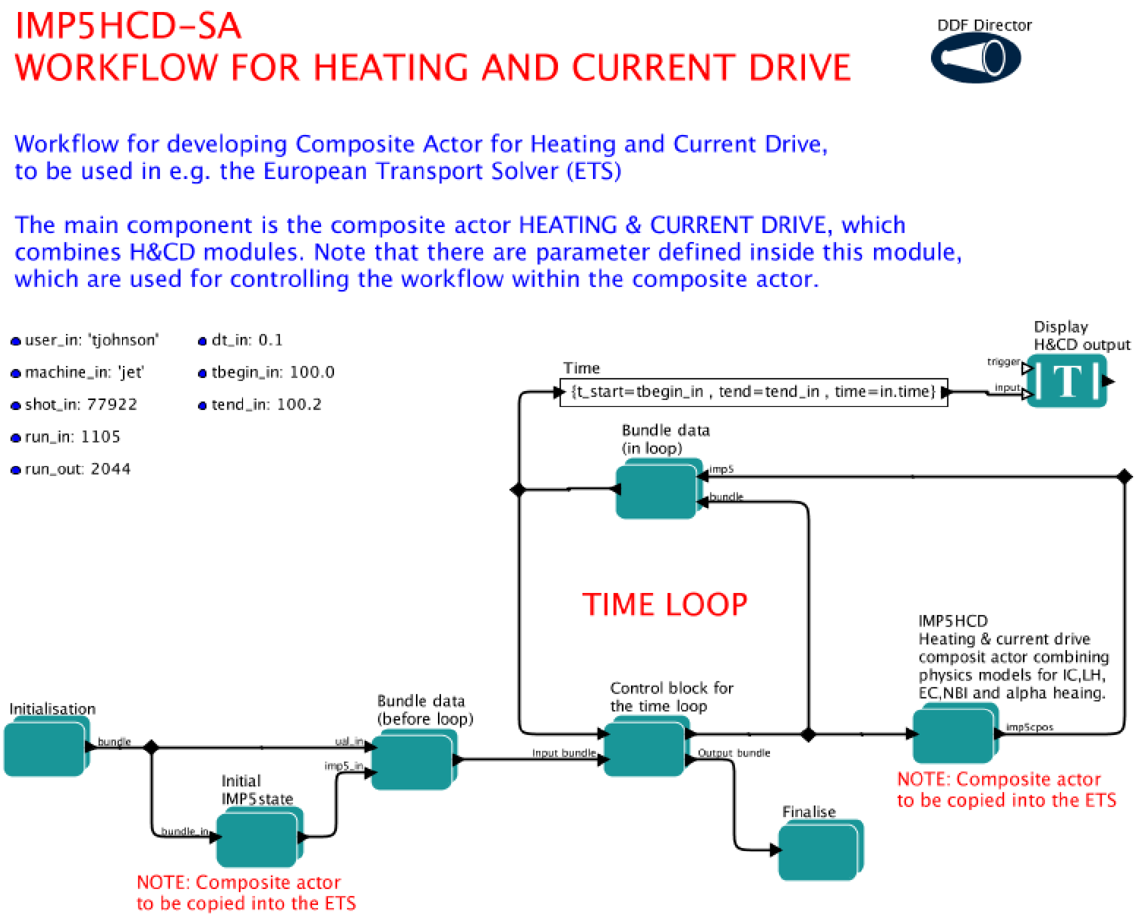
```
/afs/efda-itm.eu/imp5/user/wwwimp5/public/ITM_test/workflows/
```

9.6.1 The IMP5HCD-SA workflow

The IMP5HCD-SA (IMP5 Heating and Current Drive-Stand Alone) workflow is used for developing and testing the IMP5HCD Composite Actor [721]. The workflow runs the IMP5HCD Composite Actor for Heating and Current drive in a time loop using Equlibrium and Coreprof CPOs from the UAL and the NBI and Antenna CPOs provided by specialised CPO generators.

Contact persons: Thomas Johnson (4831) (skype: tjohn74) and Lorenzo Figini (4831)

[720] https://gforge6.eufus.eu/project/keplerworkflows/
[721] https://www.efda-itm.eu/ITM/html/.html#imp5_compositeactor_imp5hcd



9.6.1.1 How to configure IMP5HCD

To select **shot** and **run** numbers: double click on the Kepler-parameters `shot_in` and `run_in` and type your shot and run numbers values.

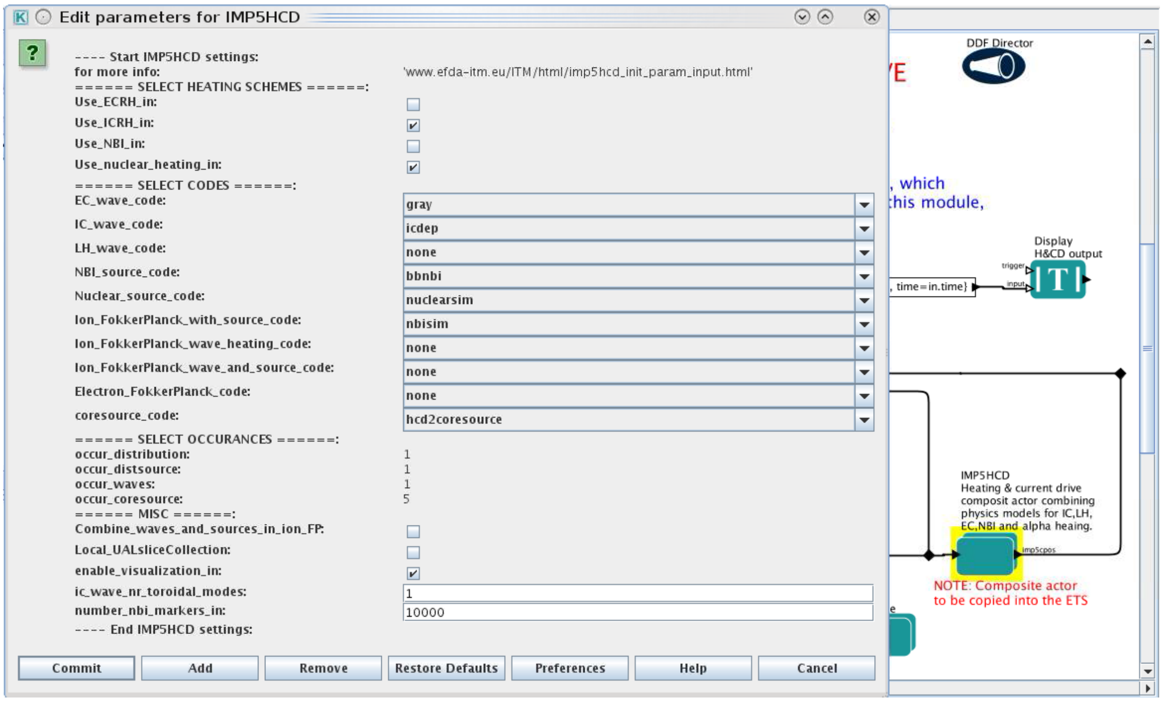
To select the time interval for the simulations: double click on the Kepler-parameters `dt_in` for the time step in seconds, `tbegin_in` for the start time, and `tend_in` for the end time of the simulation.

In addition you can select the run numbers for the output generated in each actor, `runwork_in` , and the run number to which the UALsliceCollector stores the data, `run_out`

All other parameters are set through the composite actors. All paramters that are specific to a single code are stored in the `code-parameters`

- Code parameters typically describeds parameters defining the grid to be used, selects optional assumptions to be made, the amount of debugging information to print to screen, etc.
- In addition there is a class of actors call CPO-generators that generates a CPO without any physics model, e.g. the actor `nbisetup` writes an nbi-CPO with a full description of the NBI-injector hardware and geometry. Many of these actors take their information from a list of code parameters.
- To edit the code parameters you open the composite-actors one by one until you reach the actor you wish to change; you double click on the actor; select `Code Parameters`).

Another type of parameters are supplied though local parameters inside the composite actors, see the figure below. In IMP5HCD such input parameters are store in two places; in the composite actors `IMP5HCD` and `Initial_IMP5_state` (found inside `H&CD INPUT`). This input allow you to select the heating schemes, physics codes and other workflow related options, e.g. the output occurances (which should not be touched at the moment as there are only a few occurances available and the current setting is almost the only possible one when running inside ETS-A).



9.6.1.2 Accessing the IMP5HCD-SA workflow

The IMP5HCD-SA workflow can be found in the GFORGE (29) repository KeplerWorkflows [722]. Here you find both the latest 4.10a version as well as the old 4.08a, 4.08b and 4.09a versions of the workflow, see trunk/4.08a/imp5, trunk/4.08b/imp5, trunk/4.09a/imp5 and trunk/4.10a/imp5. For checking out a local copy of the 4.10a version of the workflow:

```
svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp5/imp5hcd/  imp5hcd
```

Note that the actors used in the workflows has to be imported seperately. Importing these actors is automaized using make:

```
make import_actors
```

To open the workflow:

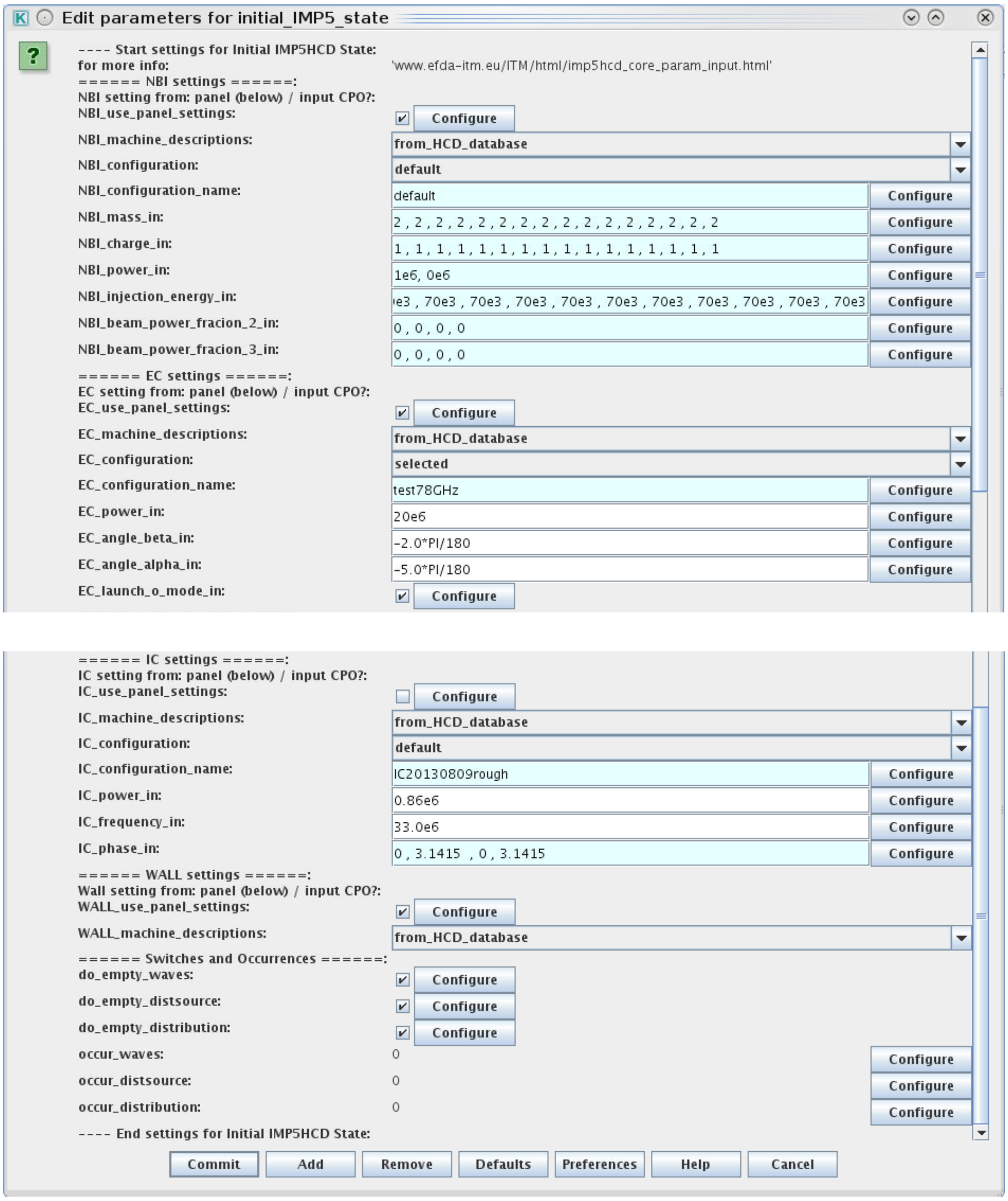
```
kepler.sh imp5hcd_sa.xml
```

OBSOLETE: Note from the IMP5HCD training, Garching 20130307 can be found here [723].

9.6.1.3 Parameter input to the Initial IMP5 State actor

When running IMP5HCD in either IMP5HCD_sa or in the ETS, the machine paramters can be assigned using the actor **Initial IMP5 State** . To control this assignment, double click to configure the actor and fill in the pop-up panel. For more details follow the links to the NBI settings (9.6.1.3.1), the EC settings (9.6.1.3.4), the IC settings (9.6.1.3.39) and the wall settings (9.6.1.3.51).

[722] https://gforge6.eufus.eu/project/keplerworkflows/
[723] https://www.efda-itm.eu/ITM/imports/imp5/public/training_imp5hcd_20130307.pdf



9.6.1.3.1 The NBI settings panel

The NBI settings panel is the list of variables following the line
`===== NBI SETTINGS =====`
Here is a description of the variables in this panel.

- **NBI_use_panel_settings:** If `TRUE` : use the NBI settings panel to configure the NBI system. If `FALSE` : ignore the NBI settings panel and use the input CPO.
- **NBI_machine_descriptions** : Select from where the NBI hardward description should be taken
  1. `from_input_CPO` : use the NBI hardware in the CPO provided by the UAL;
  2. `from_HCD_database` : uses the a HCD-database entry for the tokamak being simulated;
  3. `from_codeparameters` : specify the NBI settings in the codeparamters of the actor nbifiller.

  For all three options, dynamic quantities like power, injection energy etc. are always set according to the NBI panel settings.
- **NBI_configuration** : When using NBI data from `NBI_machine_descriptions=from_HCD_database` , then this parameter allow you to select different configurations: either you use the `default` or a `selected` configuration. In the latter case the name of the configuration is specified in **NBI_configuration_name** .

- **NBI_configuration_name** : When **NBI_machine_descriptions** = `from_HCD_database` and **NBI_configuration** = `selected` , then this parameter allow you to specify the name of your NBI configuration. The name is provided as a string and has to be one of the configurations in the list of NBI configurations (9.6.1.3.3). Note that the configuration is tied to the machine you are simulating, e.g. only ITER configurations can be used when simulating the ITER tokamak.
- **NBI_mass_in** : mass of injected species in atomic units. Vector over the beam injection units.
- **NBI_charge_in** : nuclear charge of injected species in atomic units. Vector over the beam injection units.
- **NBI_power_in** : power (W). Vector over the beam injection units.
- **NBI_injection_energy_in** : injection energy (J). Vector over the beam injection units.
- **NBI_beam_power_fraction_2_in** : fraction of the beam power injectedat half the nominal energy. Vector over the beam injection units.
- **NBI_beam_power_fraction_3_in** : fraction of the beam power injectedat a third of the nominal energy. Vector over the beam injection units.

9.6.1.3.2 Common NBI settings

Machine	mass	charge	power	injection_energy	beam_power_fraction_2	beam_power_fraction_3
ITER	2	1	33 MW	1 MeV	0	0
JET (16 PINIs)	2	1	25 MW (max 2.5 MW/PINI)	80-140 keV	0.15	0.08
MAST	2	1	4.0 MW	60 keV	0.15	0.08
AUG (PINI 1-4)	2	1	4 x 2.5 MW	60 keV	0.25	0.10
AUG (PINI 5-8)	2	1	4 x 2.5 MW	93 keV	0.25	0.10
TCV*	2	1	2.0 MW	25 keV	0.24	0.08
DEMO	2	1	90-200MW	1-2 MeV	0.0	0.0

* TCV has no beams installed, instead we use values from the scoping study for application NBI in TCV: http://www.sciencedirect.com/science/article/pii/S092037961100247X.

9.6.1.3.3 NBI configurations available in the HCD-database

Machine	Configuration name	Description
ITER	default	From the EDRG machine description database. Details: Unit 1 is On-axis and Unit 2 is Off-axis. Two gaussian components are assumed for the divergence : core (5mrad) and halo (15mrad). Unit R,Z,Phi calculated from avg of x,y,z coord. from datafiles of Otto. Tang_rad and angles from avg over beamlets angles. Beam divergences set to 5mrad assuming ideal core only component (halo 15mrad neglected). Past revisions of RUN2 contained 16 nbi units since we literally took the 4x4 layout of the cross section as with individual units. But there is a single power line and as such it is a single unit. Next datastructures should allow us to have type array to store arbitrary lenght r,z,phi,tang_rad,angle to describe any sort of layout in a coarse fashion. (2013)
JET	default	From the EDRG machine description database. Details: This file is valid for so-called UP1467 configuration (PINIs 1-4-6-7 of both Octants are upshifted with respect to their standard position). Excluding some few restart (duct conditioning) shots at the beginning of experiment campaigns (which should not be analysed anyway), this configuration is valid for the shotrange 52888-61931. The order of entries below is as follows: First Octant 4 PINI-1, PINI-2, ... PINI-8, then Octant 8 PINI-1, PINI-2, ..., PINI-8. For pow_frc_blt (fraction of power of a unit injected by a beamlet) it is assumed for the moment that all beamlets inject the same amount of power. (2013)
AUG	default	From the EDRG machine description database (2013). Details: This file does not contain details on the beamlets on each unit. We will have to get those later on.

9.6.1.3.4 The EC settings panel

The EC settings panel is the list of variables following the line
`===== EC SETTINGS =====`
Here is a description of the variables in this panel.

- **EC_use_panel_settings:** If `TRUE` : use the EC settings panel to configure the EC system. If `FALSE` : ignore the EC settings panel and use the input CPO.
- **EC_machine_descriptions** : Select from where the EC hardware description should be taken:

1. `from_input_CPO` : use the EC-configuration in the CPO provided by UAL-init;
2. `from_HCD_database` : use the a HCD-database entry for the tokamak being simulated;
3. `from_codeparameters` : specify the EC settings in the codeparamters of the actor addECant).
   For all three options, dynamic quantities like power, alpha, beta etc. are always set according to the NBI panel settings.

- **EC_configuration** : When using EC data from `EC_machine_descriptions=from_HCD_database` , then this parameter allow you to select different configurations: either you use the `default` or a `selected` configuration. In the latter case the name of the configuration is specified in **EC_configuration_name** .
- **EC_configuration_name** : When `EC_machine_descriptions=from_HCD_database` and `EC_configuration=selected` , then this parameter allow you to specify the name of your EC configuration. The name is provided as a string and has to be one of the configurations in the IMP5 EC-Antennas Database (9.6.1.3.7). Note that the configuration is tied to the machine you are simulating, e.g. only ITER configurations can be used when simulating the ITER tokamak.
- **EC_power_in** : power (W)
- **EC_angle_alpha_in** : Poloidal launching angle between the horizontal plane and the poloidal component of the nominal beam centerline (rad). Relation for to the component of the wave vector k: `tan(alpha)=-k_z/k_R`
- **EC_angle_beta_in** : Toroidal launching angle between the poloidal plane and the nominal beam centerline (rad). Relation for to the component of the wave vector k: `sin(beta)=k_phi/|k|`

9.6.1.3.5 Common EC settings

Machine	EC_power_in	EC_angle_alpha_in (stearable range)	EC_angle_beta_in (stearable range)
AUG (*/EC_1, */EC_2, */EC_3, */EC_4)	0.4 MW	(-4.3633231E-01 , 4.3633231E-01) rad	(-4.3633231E-01 , 4.3633231E-01) rad
AUG (*/EC_5, */EC_6, */EC_7, */EC_8)	0.7 MW	(-4.3633231E-01 , 4.3633231E-01) rad	(-4.3633231E-01 , 4.3633231E-01) rad
DEMO1	40 MW	- rad	- rad
ITER (2009/UL_LSM)	16 MW	(5.2359878E-01 , 9.5993109E-01) rad	(3.1415927E-01 , 3.1415927E-01) rad
ITER (2009/UL_USM)	16 MW	(6.1086524E-01 , 1.0471976E+00) rad	(3.4906585E-01 , 3.4906585E-01) rad
ITER (2011/EL_BOT)	8 MW	(-8.7266463E-02 , -8.7266463E-02) rad	(3.4906585E-01 , 6.9813170E-01) rad
ITER (2011/EL_MID)	8 MW	(0.0000000E+00 , 0.0000000E+00) rad	(-6.9813170E-01 , -3.4906585E-01) rad
ITER (2011/EL_TOP)	8 MW	(8.7266463E-02 , 8.7266463E-02) rad	(3.4906585E-01 , 6.9813170E-01) rad
ITER (2012/UL_LSM)	16 MW	(5.2359878E-01 , 9.5993109E-01) rad	(3.4906585E-01 , 3.4906585E-01) rad
ITER (2012/UL_USM)	16 MW	(6.1086524E-01 , 1.0471976E+00) rad	(3.4906585E-01 , 3.4906585E-01) rad
ITER (2013/EL_BOT)	8 MW	(-1.7453293E-01 , 4.3633231E-01 rad	(4.3633231E-01 , 4.3633231E-01 rad
ITER (2013/EL_MID)	8 MW	(0.0000000E+00 , 6.1086524E-01) rad	(4.3633231E-01 , 4.3633231E-01) rad
ITER (2013/EL_TOP)	16 Mw	(-3.4906585E-01 , 2.6179939E-01) rad	(-3.4906585E-01 , -3.4906585E-01) rad
JET	10 Mw	- rad	- rad

9.6.1.3.6 EC configuration available in the HCD-database

Machine	Configuration name	Description
AUG	LLLL	Official AUG antenna configuration #1 .Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=105 GHz, f(EC_7)=105 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LLLH	Official AUG antenna configuration #2. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=105 GHz, f(EC_7)=105 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LLHL	Official AUG antenna configuration #3. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=105 GHz, f(EC_7)=140 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.

Machine	Configuration name	Description
AUG	LLHH	Official AUG antenna configuration #4. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=105 GHz, f(EC_7)=140 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LHLL	Official AUG antenna configuration #5. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=140 GHz, f(EC_7)=105 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LHLH	Official AUG antenna configuration #6. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=140 GHz, f(EC_7)=105 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LHHL	Official AUG antenna configuration #7. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=140 GHz, f(EC_7)=140 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	LHHH	Official AUG antenna configuration #8. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=105 GHz, f(EC_6)=140 GHz, f(EC_7)=140 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HLLL	Official AUG antenna configuration #9. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=105 GHz, f(EC_7)=105 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HLLH	Official AUG antenna configuration #10. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=105 GHz, f(EC_7)=105 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HLHL	Official AUG antenna configuration #11. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=105 GHz, f(EC_7)=140 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HLHH	Official AUG antenna configuration #12. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=105 GHz, f(EC_7)=140 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HHLL	Official AUG antenna configuration #13. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=140 GHz, f(EC_7)=105 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HHLH	Official AUG antenna configuration #14. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=140 GHz, f(EC_7)=105 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HHHL	Official AUG antenna configuration #15. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=140 GHz, f(EC_7)=140 GHz, f(EC_8)=105 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
AUG	HHHH	Official AUG antenna configuration #16. Provided by Joerg Stober and Walter Kasparek. Gyrotrons configuration: f(EC_5)=140 GHz, f(EC_6)=140 GHz, f(EC_7)=140 GHz, f(EC_8)=140 GHz. NOTE: Anyone who wants to use the ITM database to plan EC experiments on AUG should get in contact with Joerg Stober, to check that the assumptions they have done are consistent.
DEMO1	test200GHz	Dummy antenna; perpendicular launch in the equitorial plane at 200 GHz. Generated only for initial testing.
ITER	2009	Unofficial antenna (from Lorenzo Figini).
ITER	2011	Unofficial antenna (from Lorenzo Figini).
ITER	2012	Unofficial antenna (from Lorenzo Figini).
ITER	2013	Unofficial antenna (from Lorenzo Figini).
JET	test66GHz	Dummy antenna; perpendicular launch in the equitorial plane at 66 GHz. Generated only for initial testing.
JET	test78GHz	Dummy antenna; perpendicular launch in the equitorial plane at 78 GHz. Generated only for initial testing.
JET	test90GHz	Dummy antenna; perpendicular launch in the equitorial plane at 90 GHz. Generated only for initial testing.

For a detailed description of these configurations, see the IMP5 EC-Antennas Database (9.6.1.3.7)

9.6.1.3.7 EC Antenna Database

UNDER CONSTRUCTION

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

9.6.1.3.8 AUG antennas

9.6.1.3.9 AUG configuration: HHHH

Antenna name: AUG/HHHH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01

- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHH/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.10 AUG configuration: HHHL

Antenna name: AUG/HHHL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11

- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }

- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6

- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHHL/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.11 AUG configuration: HHLH

Antenna name: AUG/HHLH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }

- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_4

- UALshot = 1

- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00

- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLH/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.12 AUG configuration: HHLL

Antenna name: AUG/HHLL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05

- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HHLL/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11

- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.13 AUG configuration: HLHH

Antenna name: AUG/HLHH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }

- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_5_140

- UALshot = 1
- UALrun = 10

- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }

- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHH/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.14 AUG configuration: HLHL

Antenna name: AUG/HLHL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00

- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }

- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLHL/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.15 AUG configuration: HLLH

Antenna name: AUG/HLLH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05

- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLH/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11

- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.16 AUG configuration: HLLL

Antenna name: AUG/HLLL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }

- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_5_105

- UALshot = 1
- UALrun = 10

- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }

- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/HLLL/EC_8_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.17 AUG configuration: LHHH

Antenna name: AUG/LHHH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00

- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }

- phase_angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot_size = { 2.9900000E-02 , 2.9900000E-02 }
- spot_angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase_angle = 0.0000000E+00

Antenna name: AUG/LHHH/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot_size = { 2.9900000E-02 , 2.9900000E-02 }
- spot_angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase_angle = 0.0000000E+00

9.6.1.3.18 AUG configuration: LHHL

Antenna name: AUG/LHHL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05

- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHHL/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11

- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.19 AUG configuration: LHLH

Antenna name: AUG/LHLH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }

- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_5_140

- UALshot = 1
- UALrun = 10

- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }

- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLH/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.20 AUG configuration: LHLL

Antenna name: AUG/LHLL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00

- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }

- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_7_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LHLL/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.21 AUG configuration: LLHH

Antenna name: AUG/LLHH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05

- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHH/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11

- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.22 AUG configuration: LLHL

Antenna name: AUG/LLHL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }

- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_5_105

- UALshot = 1
- UALrun = 10

- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_6_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }

- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLHL/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.23 AUG configuration: LLLH

Antenna name: AUG/LLLH/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00

- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_5_140

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.4000000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }

- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLH/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.24 AUG configuration: LLLL

Antenna name: AUG/LLLL/EC_1

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 0
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_2

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 1
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3800000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.6400000E-02 , 3.6400000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -8.7930000E-01 , -8.7930000E-01 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_3

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 2
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05

- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_4

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 3
- frequency = 1.4000000E+11
- max_power = 4.0000000E+05
- R = 2.3110000E+00
- Z = 0.0000000E+00
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 3.2900000E-02 , 3.2900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -2.9660000E+00 , -2.9660000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_5_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 4
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_6_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 5
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = 3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_7_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 6
- frequency = 1.0500000E+11
- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

Antenna name: AUG/LLLL/EC_8_105

- UALshot = 1
- UALrun = 10
- UALAntennaIndex = 7
- frequency = 1.0500000E+11

- max_power = 7.0000000E+05
- R = 2.3610000E+00
- Z = -3.2000000E-01
- phi = 0.0000000E+00
- alpha = { -4.3633231E-01 , 4.3633231E-01 }
- beta = { -4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 2.9900000E-02 , 2.9900000E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -1.1480000E+00 , -1.1480000E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.25 DEMO1 antennas

9.6.1.3.26 DEMO1 configuration: test200GHz

Antenna name: DEMO1/test200GHz/A

- UALshot = 1
- UALrun = 9
- UALAntennaIndex = 0
- frequency = 200.0000E+9
- max_power = 2.0000000E+07
- R = 13.000000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.27 ITER antennas

9.6.1.3.28 ITER configuration: 2009

Antenna name: ITER/2009/UL_LSM

- UALshot = 1
- UALrun = 2
- UALAntennaIndex = 0
- frequency = 1.7000000E+11
- max_power = 1.6000000E+07
- R = 6.9200000E+00

- Z = 4.1550000E+00
- phi = 0.0000000E+00
- alpha = { 5.2359878E-01 , 9.5993109E-01 }
- beta = { 3.1415927E-01 , 3.1415927E-01 }
- spot.size = { 4.8126362E-02 , 4.8126362E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -4.9975158E-01 , -4.9975158E-01 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2009/UL_USM

- UALshot = 1
- UALrun = 2
- UALAntennaIndex = 1
- frequency = 1.7000000E+11
- max_power = 1.6000000E+07
- R = 6.8650000E+00
- Z = 4.3600000E+00
- phi = 0.0000000E+00
- alpha = { 6.1086524E-01 , 1.0471976E+00 }
- beta = { 3.4906585E-01 , 3.4906585E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.29 ITER configuration: 2011

Antenna name: ITER/2011/EL_BOT

- UALshot = 1
- UALrun = 1
- UALAntennaIndex = 0
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06
- R = 9.2650000E+00
- Z = 1.2200000E+00
- phi = 0.0000000E+00
- alpha = { -8.7266463E-02 , -8.7266463E-02 }
- beta = { 3.4906585E-01 , 6.9813170E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00

- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2011/EL_MID

- UALshot = 1
- UALrun = 1
- UALAntennaIndex = 1
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06
- R = 9.2650000E+00
- Z = 6.2000000E-01
- phi = 0.0000000E+00
- alpha = { 0.0000000E+00 , 0.0000000E+00 }
- beta = { -6.9813170E-01 , -3.4906585E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2011/EL_TOP

- UALshot = 1
- UALrun = 1
- UALAntennaIndex = 2
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06
- R = 9.2650000E+00
- Z = 2.0000000E-02
- phi = 0.0000000E+00
- alpha = { 8.7266463E-02 , 8.7266463E-02 }
- beta = { 3.4906585E-01 , 6.9813170E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.30 ITER configuration: 2012

Antenna name: ITER/2012/UL_LSM

- UALshot = 1
- UALrun = 3
- UALAntennaIndex = 0
- frequency = 1.7000000E+11
- max_power = 1.6000000E+07
- R = 7.0600000E+00
- Z = 4.2300000E+00
- phi = 0.0000000E+00
- alpha = { 5.2359878E-01 , 9.5993109E-01 }
- beta = { 3.4906585E-01 , 3.4906585E-01 }
- spot.size = { 4.8126362E-02 , 4.8126362E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -4.9975158E-01 , -4.9975158E-01 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2012/UL_USM

- UALshot = 1
- UALrun = 3
- UALAntennaIndex = 1
- frequency = 1.7000000E+11
- max_power = 1.6000000E+07
- R = 7.0050000E+00
- Z = 4.4350000E+00
- phi = 0.0000000E+00
- alpha = { 6.1086524E-01 , 1.0471976E+00 }
- beta = { 3.4906585E-01 , 3.4906585E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.31 ITER configuration: 2013

Antenna name: ITER/2013/EL_BOT

- UALshot = 1
- UALrun = 4
- UALAntennaIndex = 0
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06
- R = 9.2650000E+00
- Z = 1.2200000E+00
- phi = 0.0000000E+00
- alpha = { -1.7453293E-01 , 4.3633231E-01 }
- beta = { 4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2013/EL_MID

- UALshot = 1
- UALrun = 4
- UALAntennaIndex = 1
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06
- R = 9.2650000E+00
- Z = 6.2000000E-01
- phi = 0.0000000E+00
- alpha = { 0.0000000E+00 , 6.1086524E-01 }
- beta = { 4.3633231E-01 , 4.3633231E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

Antenna name: ITER/2013/EL_TOP

- UALshot = 1
- UALrun = 4
- UALAntennaIndex = 2
- frequency = 1.7000000E+11
- max_power = 8.0000000E+06

- R = 9.2650000E+00
- Z = 2.0000000E-02
- phi = 0.0000000E+00
- alpha = { -3.4906585E-01 , 2.6179939E-01 }
- beta = { -3.4906585E-01 , -3.4906585E-01 }
- spot.size = { 1.0256697E-01 , 3.9357439E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { 1.2462495E-01 , -1.3519288E+00 }
- phase.angle = 0.0000000E+00

9.6.1.3.32 JET antennas

9.6.1.3.33 JET configuration: test132GHz

Antenna name: JET/test132GHz/A

- UALshot = 1
- UALrun = 6
- UALAntennaIndex = 0
- frequency = 132.0000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.34 JET configuration: test156GHz

Antenna name: JET/test156GHz/A

- UALshot = 1
- UALrun = 7
- UALAntennaIndex = 0
- frequency = 156.0000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00

- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.35 JET configuration: test180GHz

Antenna name: JET/test180GHz/A

- UALshot = 1
- UALrun = 8
- UALAntennaIndex = 0
- frequency = 180.0000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.36 JET configuration: test66GHz

Antenna name: JET/test66GHz/A

- UALshot = 1
- UALrun = 5
- UALAntennaIndex = 0
- frequency = 66.00000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.37 JET configuration: test78GHz

Antenna name: JET/test78GHz/A

- UALshot = 1
- UALrun = 6
- UALAntennaIndex = 0
- frequency = 78.00000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

9.6.1.3.38 JET configuration: test90GHz

Antenna name: JET/test90GHz/A

- UALshot = 1
- UALrun = 7
- UALAntennaIndex = 0
- frequency = 90.00000E+9
- max_power = 2.0000000E+07
- R = 7.0050000E+00
- Z = 0.00000E+00
- phi = 0.0000000E+00
- alpha = { -1.0000000E0 , 1.0000000E+00 }
- beta = { -5.000000E-01 , 5.0000000E-01 }
- spot.size = { 5.0470054E-02 , 5.0470054E-02 }
- spot.angle = 0.0000000E+00
- invcurvrad = { -3.1388799E-01 , -3.1388799E-01 }
- phase.angle = 0.0000000E+00

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last update: 2014-11-12 by dpc

9.6.1.3.39 The IC settings panel

The IC settings panel is the list of variables following the line
`===== IC SETTINGS =====`
Here is a description of the variables in this panel.

- **IC_use_panel_settings** : If `TRUE` : use the IC settings panel to configure the IC system. If `FALSE` : ignore the IC settings panel and use the input CPO.
- **IC_machine_descriptions** : Select from where the IC hardware description should be taken
  1. `from_input_CPO` : use the IC hardware in the CPO provided by the UAL;
  2. `from_HCD_database` : use the a HCD-database entry for the tokamak being simulated;
  3. `from_codeparameters` : specify the IC settings in the codeparamters of the actor addICant.

  For all three options, dynamic quantities like power, frequency etc. are always set according to the IC panel settings.
- **IC_configuration** : When using IC data from `IC_machine_descriptions=from_HCD_database` , then this parameter allow you to select different configurations: either you use the `default` or a `selected` configuration. In the latter case the name of the configuration is specified in **IC_configuration_name** .
- **IC_configuration_name** : When `IC_machine_descriptions=from_HCD_database` and `IC_configuration=selected` , then this parameter allow you to specify the name of your IC configuration. The name is provided as a string and has to be one of the configurations in the list of IC configurations (9.6.1.3.41) (for details see IMP5 IC-Antennas Database (9.6.1.3.42)). Note that the configuration is tied to the machine you are simulating, e.g. only ITER configurations can be used when simulating the ITER tokamak.
- **IC_power_in** : power (W)
- **IC_frequency_in** : frequency (Hz)
- **IC_phase_in** : phase of the current in each antenna strap (rad). Vector over all straps. E.g. a dipole phasing for a four strap antenna (JET-A2/ITER) may written as `{0,PI,0,PI}` , while a current drive phasing would be written as `{0,PI/2,PI,3*PI/2}` or `{0,-PI/2,-PI,-3*PI/2}` .

9.6.1.3.40 Common IC settings

Machine	IC_power_in	IC_frequency_in	IC_phase_in
ITER	20 MW	54 MHz (central He3 minority at 5.3T)	{ 0 , PI , 0 , PI }
JET	7 MW	33 MHz (central H minority at 2.16T) 37 MHz (central H minority at 2.42T) 42 MHz (central H minority at 2.75T) 47 MHz (central H minority at 3.08T) 51 MHz (central H minority at 3.34T) 33 MHz (central He3 minority at 3.24T) 37 MHz (central He3 minority at 3.63T) 51 MHz (central 2nd harmonic H at 1.67T) 47 MHz (central 2nd harmonic H at 1.54T) 42 MHz (central 2nd harmonic H at 1.38T) 37 MHz (central 2nd harmonic H at 1.21T) 33 MHz (central 2nd harmonic H at 1.08T)	{ 0 , PI , 0 , PI } (dipole) { 0 , PI/2 , PI , 3*PI/2 } (co-current) { 0 , -PI/2 , -PI , -3*PI/2 } (counter-current)
AUG	7 MW	30.0 MHz (central H minority at 2.0 T) 36.5 MHz (central H minority at 2.5 T)	{ 0 , PI }
Tore Supra	9 MW	57 MHz (central H minority at 3.7 T) 63 MHz (central 2nd harmonic H at 2.1 T) 42 MHz (central 3He minority at 3.7 T) 48 MHz (FWEH at 2.1 T)	{ 0 , PI }
WEST (unofficial 2013-08-08)	- MW	55/57 MHz (central H minority at 3.7 T)	

9.6.1.3.41 IC configurations available in the HCD-database

Names of available IC configuration in the machine description database:

Machine	Configuration name	Description
ITER	IC20130809rough	A rough unofficial antenna generated to mimic graphical illustrations.
JET	IC20130809rough	A rough unofficial antenna generated to mimic graphical illustrations.
AUG	IC20130809rough	A rough unofficial antenna generated from a limited number of parameter provided by Roberto Bilato.
WEST	FluxAligned	A rough unofficial antenna. The antenna shape is simply aligned to the flux surface, which is the same antenna that Remi Dumont has been using in his initial studies of ICRF in WEST (2013-10-16).

For detailed descriptions of these antennas see the IMP5 IC-Antennas Database (9.6.1.3.42)

9.6.1.3.42 IC Antenna Database

UNDER CONSTRUCTION

This documentation is generated from the XML schema, the xsd-file, for the code parameters.

9.6.1.3.43 AUG antennas

9.6.1.3.44 AUG configuration: IC20130809rough

Antenna name: AUG/IC20130809rough/A

- frequency = 36500000.0
- power = 2000000.0
- strap_dist2wall = 0.21
- strap_phase = { 0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.095 }
- strap_width = { 0.18 ,0.18 }
- strap_coord_R = { 2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 }
- strap_coord_Z = { -0.475 ,-0.38 ,-0.285 ,-0.19 ,-0.095 ,0.0 ,0.095 ,0.19 ,0.285 ,0.38 }

Antenna name: AUG/IC20130809rough/B

- frequency = 36500000.0
- power = 2000000.0
- strap_dist2wall = 0.21
- strap_phase = { 0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.095 }
- strap_width = { 0.18 ,0.18 }
- strap_coord_R = { 2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 }
- strap_coord_Z = { -0.475 ,-0.38 ,-0.285 ,-0.19 ,-0.095 ,0.0 ,0.095 ,0.19 ,0.285 ,0.38 }

Antenna name: AUG/IC20130809rough/C

- frequency = 36500000.0
- power = 2000000.0
- strap_dist2wall = 0.21
- strap_phase = { 0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.095 }
- strap_width = { 0.18 ,0.18 }

- strap_coord_R = { 2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 }
- strap_coord_Z = { -0.475 ,-0.38 ,-0.285 ,-0.19 ,-0.095 ,0.0 ,0.095 ,0.19 ,0.285 ,0.38 }

Antenna name: AUG/IC20130809rough/D

- frequency = 36500000.0
- power = 2000000.0
- strap_dist2wall = 0.21
- strap_phase = { 0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.095 }
- strap_width = { 0.18 ,0.18 }
- strap_coord_R = { 2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 ,2.2 }
- strap_coord_Z = { -0.475 ,-0.38 ,-0.285 ,-0.19 ,-0.095 ,0.0 ,0.095 ,0.19 ,0.285 ,0.38 }

9.6.1.3.45 ITER antennas

9.6.1.3.46 ITER configuration: IC20130809rough

Antenna name: ITER/IC20130809rough/A

- frequency = 54000000.0
- power = 20000000.0
- strap_dist2wall = 0.2
- strap_phase = { 0.0 ,3.14159265359 ,0.0 ,3.14159265359 }
- strap_phi_centre = { -0.0711221670188 ,0.0281434341884 ,0.0281434341884 ,0.0711221670188 }
- strap_width = { 0.213846466601 ,0.210159458556 ,0.210159458556 ,0.213846466601 }
- strap_coord_R = { 8.30444407765 ,8.30793901163 ,8.31139183153 ,8.31480251985 ,8.31817105931 ,8.32149743282 ,8.32478162353 ,8.32802361478 ,8.33122339015 ,8.33438093341 ,8.33749622856 ,8.3405692598 ,8.34360001156 ,8.34658846847 ,8.34953461539 ,8.35243843738 ,8.35529991971 ,8.3581190479 ,8.36089580764 ,8.36363018486 ,8.3663221657 ,8.3689717365 ,8.37157888386 ,8.37414359453 ,8.37666585553 ,8.37914565407 ,8.38158297758 ,8.3839778137 ,8.38633015029 ,8.38863997543 ,8.39090727742 ,8.39313204475 ,8.39531426615 ,8.39745393055 ,8.39955102712 ,8.40160554522 ,8.40361747444 ,8.40558680457 ,8.40751352563 ,8.40939762787 ,8.41123910172 ,8.41303793785 ,8.41479412715 ,8.41650766071 ,8.41817852984 ,8.41980672608 ,8.42139224117 ,8.42293506707 ,8.42443519597 ,8.42589262026 ,8.42730733255 ,8.42867932567 ,8.43000859266 ,8.43129512679 ,8.43253892154 ,8.4337399706 ,8.43489826788 ,8.43601380751 ,8.43708658383 ,8.43811659142 ,8.43910382504 ,8.44004827969 ,8.44080608265 ,8.43989744663 ,8.43894602763 ,8.43795183046 ,8.43691486016 ,8.43583512199 ,8.43471262142 ,8.43354736414 ,8.43233935606 ,8.43108860331 ,8.42979511221 ,8.42845888934 ,8.42707994145 ,8.42565827556 ,8.42419389884 ,8.42268681875 ,8.4211370429 ,8.41954457916 ,8.41790943561 ,8.41623162052 ,8.41451114241 ,8.41274800999 ,8.41094223221 ,8.40909381821 ,8.40720277737 ,8.40526911927 ,8.40329285372 ,8.40127399073 ,8.39921254054 ,8.39710851359 ,8.39496192056 ,8.39277277232 ,8.39054107997 ,8.38826685482 ,8.3859501084 ,8.38359085247 ,8.38118909896 ,8.37874486007 }
- strap_coord_Z = { 1.56163650097 ,1.54293531266 ,1.52422630301 ,1.50550956684 ,1.48678519904 ,1.46805329452 ,1.44931394824 ,1.43056725519 ,1.4118133104 ,1.39305220893 ,1.3742840459 ,1.35550891643 ,1.3367269157 ,1.31793813892 ,1.29914268133 ,1.28034063821 ,1.26153210487 ,1.24271717665 ,1.22389594893 ,1.20506851711 ,1.18623497664 ,1.16739542298 ,1.14854995163 ,1.12969865813 ,1.11084163803 ,1.09197898692 ,1.07311080042 ,1.05423717418 ,1.03535820386 ,1.01647398517 ,0.997584613841 ,0.978690185617 ,0.959790796278 ,0.940886541629 ,0.921977517498 ,0.903063819737 ,0.884145544222 ,0.865222786853 ,0.846295643552 ,0.827364210263 ,0.808428582951 ,0.789488857606 ,0.770545130233 ,0.751597496862 ,0.732646053541 ,0.713690896337 ,0.694732121337 ,0.675769824645 ,0.656804102383 ,0.637835050692 ,0.618862765728 ,0.599887343665 ,0.580908880691 ,0.56192747301 ,0.542943216842 ,0.523956208421 ,0.504966543995 ,0.485974319825 ,0.466979632184 ,0.44798257736 ,0.428983251651 ,0.409981751368 ,0.390978172831 ,0.371972612373 ,0.352965166334 ,0.333955931067 ,0.314945002932 ,0.295932478298 ,0.276918453542 ,0.257903025048 ,0.238886289209 ,0.219868342422 ,0.200849281093 ,0.181829201632 ,0.162808200453 ,0.143786373978

,0.12476381863 ,0.105740630837 ,0.0867169070302 ,0.0676927436438 ,0.0486682371136 ,0.0296434838774 ,0.010618580374 ,-0.0084063769556 ,-0.0274312916726 ,-0.0464560673366 ,-0.0654806075084 ,-0.0845048157502 ,-0.103528595625 ,-0.1225518507 ,-0.141574484543 ,-0.160596400725 ,-0.179617502823 ,-0.198637694414 ,-0.217656879084 ,-0.236674960422 ,-0.255691842022 ,-0.274707427485 ,-0.293721620419 ,-0.312734324438 }

9.6.1.3.47 JET antennas

9.6.1.3.48 JET configuration: IC20130809rough

Antenna name: JET/IC20130809rough/A

- frequency = 42000000.0
- power = 2000000.0
- strap_dist2wall = 0.275
- strap_phase = { 0.0 ,3.14159265359 ,0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.074025974026 ,0.14852 ,0.2188 }
- strap_width = { 0.18 ,0.18 ,0.18 ,0.18 }
- strap_coord_R = { 3.76779 ,3.766355 ,3.769994 ,3.778127 ,3.786546 ,3.794739 ,3.802773 ,3.810458 ,3.817928 ,3.825151 ,3.83214 ,3.83897 ,3.845452 ,3.85183 ,3.857891 ,3.863829 ,3.869432 ,3.874891 ,3.880056 ,3.885132 ,3.889887 ,3.894514 ,3.898886 ,3.903034 ,3.906955 ,3.910721 ,3.914315 ,3.917724 ,3.920936 ,3.923939 ,3.926724 ,3.929277 ,3.931589 ,3.933649 ,3.935444 ,3.937012 ,3.938565 ,3.939911 ,3.941071 ,3.942011 ,3.94278 ,3.943352 ,3.943644 ,3.943845 ,3.943845 ,3.94361 ,3.943168 ,3.942542 ,3.941718 ,3.940709 ,3.93955 ,3.938106 ,3.936547 ,3.934709 ,3.932708 ,3.930548 ,3.928138 ,3.925512 ,3.922774 ,3.919881 ,3.920381 }
- strap_coord_Z = { -0.55 ,-0.53 ,-0.51 ,-0.49 ,-0.47 ,-0.45 ,-0.43 ,-0.41 ,-0.39 ,-0.37 ,-0.35 ,-0.33 ,-0.31 ,-0.29 ,-0.27 ,-0.25 ,-0.23 ,-0.21 ,-0.19 ,-0.17 ,-0.15 ,-0.13 ,-0.11 ,-0.09 ,-0.07 ,-0.05 ,-0.03 ,-0.01 ,0.01 ,0.03 ,0.05 ,0.07 ,0.09 ,0.11 ,0.13 ,0.15 ,0.17 ,0.19 ,0.21 ,0.23 ,0.25 ,0.27 ,0.29 ,0.31 ,0.33 ,0.35 ,0.37 ,0.39 ,0.41 ,0.43 ,0.45 ,0.47 ,0.49 ,0.51 ,0.53 ,0.55 ,0.57 ,0.59 ,0.61 ,0.63 ,0.65 }

Antenna name: JET/IC20130809rough/B

- frequency = 42000000.0
- power = 2000000.0
- strap_dist2wall = 0.275
- strap_phase = { 0.0 ,3.14159265359 ,0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.074025974026 ,0.14852 ,0.2188 }
- strap_width = { 0.18 ,0.18 ,0.18 ,0.18 }
- strap_coord_R = { 3.76779 ,3.766355 ,3.769994 ,3.778127 ,3.786546 ,3.794739 ,3.802773 ,3.810458 ,3.817928 ,3.825151 ,3.83214 ,3.83897 ,3.845452 ,3.85183 ,3.857891 ,3.863829 ,3.869432 ,3.874891 ,3.880056 ,3.885132 ,3.889887 ,3.894514 ,3.898886 ,3.903034 ,3.906955 ,3.910721 ,3.914315 ,3.917724 ,3.920936 ,3.923939 ,3.926724 ,3.929277 ,3.931589 ,3.933649 ,3.935444 ,3.937012 ,3.938565 ,3.939911 ,3.941071 ,3.942011 ,3.94278 ,3.943352 ,3.943644 ,3.943845 ,3.943845 ,3.94361 ,3.943168 ,3.942542 ,3.941718 ,3.940709 ,3.93955 ,3.938106 ,3.936547 ,3.934709 ,3.932708 ,3.930548 ,3.928138 ,3.925512 ,3.922774 ,3.919881 ,3.920381 }
- strap_coord_Z = { -0.55 ,-0.53 ,-0.51 ,-0.49 ,-0.47 ,-0.45 ,-0.43 ,-0.41 ,-0.39 ,-0.37 ,-0.35 ,-0.33 ,-0.31 ,-0.29 ,-0.27 ,-0.25 ,-0.23 ,-0.21 ,-0.19 ,-0.17 ,-0.15 ,-0.13 ,-0.11 ,-0.09 ,-0.07 ,-0.05 ,-0.03 ,-0.01 ,0.01 ,0.03 ,0.05 ,0.07 ,0.09 ,0.11 ,0.13 ,0.15 ,0.17 ,0.19 ,0.21 ,0.23 ,0.25 ,0.27 ,0.29 ,0.31 ,0.33 ,0.35 ,0.37 ,0.39 ,0.41 ,0.43 ,0.45 ,0.47 ,0.49 ,0.51 ,0.53 ,0.55 ,0.57 ,0.59 ,0.61 ,0.63 ,0.65 }

Antenna name: JET/IC20130809rough/C

- frequency = 42000000.0
- power = 2000000.0
- strap_dist2wall = 0.275

- strap_phase = { 0.0 ,3.14159265359 ,0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.074025974026 ,0.14852 ,0.2188 }
- strap_width = { 0.18 ,0.18 ,0.18 ,0.18 }
- strap_coord_R = { 3.76779 ,3.766355 ,3.769994 ,3.778127 ,3.786546 ,3.794739 ,3.802773 ,3.810458 ,3.817928 ,3.825151 ,3.83214 ,3.83897 ,3.845452 ,3.85183 ,3.857891 ,3.863829 ,3.869432 ,3.874891 ,3.880056 ,3.885132 ,3.889887 ,3.894514 ,3.898886 ,3.903034 ,3.906955 ,3.910721 ,3.914315 ,3.917724 ,3.920936 ,3.923939 ,3.926724 ,3.929277 ,3.931589 ,3.933649 ,3.935444 ,3.937012 ,3.938565 ,3.939911 ,3.941071 ,3.942011 ,3.94278 ,3.943352 ,3.943644 ,3.943845 ,3.943845 ,3.94361 ,3.943168 ,3.942542 ,3.941718 ,3.940709 ,3.93955 ,3.938106 ,3.936547 ,3.934709 ,3.932708 ,3.930548 ,3.928138 ,3.925512 ,3.922774 ,3.919881 ,3.920381 }
- strap_coord_Z = { -0.55 ,-0.53 ,-0.51 ,-0.49 ,-0.47 ,-0.45 ,-0.43 ,-0.41 ,-0.39 ,-0.37 ,-0.35 ,-0.33 ,-0.31 ,-0.29 ,-0.27 ,-0.25 ,-0.23 ,-0.21 ,-0.19 ,-0.17 ,-0.15 ,-0.13 ,-0.11 ,-0.09 ,-0.07 ,-0.05 ,-0.03 ,-0.01 ,0.01 ,0.03 ,0.05 ,0.07 ,0.09 ,0.11 ,0.13 ,0.15 ,0.17 ,0.19 ,0.21 ,0.23 ,0.25 ,0.27 ,0.29 ,0.31 ,0.33 ,0.35 ,0.37 ,0.39 ,0.41 ,0.43 ,0.45 ,0.47 ,0.49 ,0.51 ,0.53 ,0.55 ,0.57 ,0.59 ,0.61 ,0.63 ,0.65 }

Antenna name: JET/IC20130809rough/D

- frequency = 42000000.0
- power = 2000000.0
- strap_dist2wall = 0.275
- strap_phase = { 0.0 ,3.14159265359 ,0.0 ,3.14159265359 }
- strap_phi_centre = { 0.0 ,0.074025974026 ,0.14852 ,0.2188 }
- strap_width = { 0.18 ,0.18 ,0.18 ,0.18 }
- strap_coord_R = { 3.76779 ,3.766355 ,3.769994 ,3.778127 ,3.786546 ,3.794739 ,3.802773 ,3.810458 ,3.817928 ,3.825151 ,3.83214 ,3.83897 ,3.845452 ,3.85183 ,3.857891 ,3.863829 ,3.869432 ,3.874891 ,3.880056 ,3.885132 ,3.889887 ,3.894514 ,3.898886 ,3.903034 ,3.906955 ,3.910721 ,3.914315 ,3.917724 ,3.920936 ,3.923939 ,3.926724 ,3.929277 ,3.931589 ,3.933649 ,3.935444 ,3.937012 ,3.938565 ,3.939911 ,3.941071 ,3.942011 ,3.94278 ,3.943352 ,3.943644 ,3.943845 ,3.943845 ,3.94361 ,3.943168 ,3.942542 ,3.941718 ,3.940709 ,3.93955 ,3.938106 ,3.936547 ,3.934709 ,3.932708 ,3.930548 ,3.928138 ,3.925512 ,3.922774 ,3.919881 ,3.920381 }
- strap_coord_Z = { -0.55 ,-0.53 ,-0.51 ,-0.49 ,-0.47 ,-0.45 ,-0.43 ,-0.41 ,-0.39 ,-0.37 ,-0.35 ,-0.33 ,-0.31 ,-0.29 ,-0.27 ,-0.25 ,-0.23 ,-0.21 ,-0.19 ,-0.17 ,-0.15 ,-0.13 ,-0.11 ,-0.09 ,-0.07 ,-0.05 ,-0.03 ,-0.01 ,0.01 ,0.03 ,0.05 ,0.07 ,0.09 ,0.11 ,0.13 ,0.15 ,0.17 ,0.19 ,0.21 ,0.23 ,0.25 ,0.27 ,0.29 ,0.31 ,0.33 ,0.35 ,0.37 ,0.39 ,0.41 ,0.43 ,0.45 ,0.47 ,0.49 ,0.51 ,0.53 ,0.55 ,0.57 ,0.59 ,0.61 ,0.63 ,0.65 }

9.6.1.3.49 WEST antennas

9.6.1.3.50 WEST configuration: FluxAligned

Antenna name: WEST/FluxAligned/A

- frequency = 55000000.0
- power = 2000000.0
- strap_dist2wall = 0.2
- strap_phase = { 0.0 ,3.14159265359 }
- strap_phi_centre = { -0.0717 ,0.0717 }
- strap_width = { 0.15 ,0.15 }
- strap_coord_R = { 2.786301 ,2.790518 ,2.795422 ,2.799577 ,2.804159 ,2.8086 ,2.812859 ,2.81711 ,2.821506 ,2.825241 ,2.82916 ,2.833509 ,2.837586 ,2.841331 ,2.845207 ,2.849113 ,2.852931 ,2.856141 ,2.859704 ,2.863633 ,2.867153 ,2.870422 ,2.874193 ,2.877257 ,2.880099 ,2.883392 ,2.886868 ,2.890081 ,2.892963 ,2.895972 ,2.898732 ,2.9019 ,2.904538 ,2.907243 ,2.909962 ,2.912708 ,2.915132 ,2.917706 ,2.920017 ,2.92276 ,2.924639 ,2.927066 ,2.929652 ,2.931908 ,2.933932 ,2.936084 ,2.938279 ,2.940253 ,2.942604 ,2.94428 ,2.946262 ,2.948096 ,2.949703 ,2.951423 ,2.952898 ,2.954747 ,2.95609 ,2.957418 ,2.959091 ,2.960514 ,2.961668 ,2.962987 ,2.964525 ,2.965461

,2.966922 ,2.967847 ,2.969235 ,2.970264 ,2.97122 ,2.972174 ,2.97299 ,2.973628 ,2.974487 ,2.975201 ,2.975538 ,2.976199 ,2.977051 ,2.977308 ,2.977995 ,2.97796 ,2.978355 ,2.978701 ,2.979041 ,2.97911 ,2.97911 ,2.979503 ,2.979979 ,2.980337 ,2.980689 ,2.980195 ,2.980642 ,2.980218 ,2.979801 ,2.979832 ,2.97954 ,2.979458 ,2.978798 ,2.97842 ,2.977585 ,2.977285 ,2.976898 ,2.975995 ,2.975382 ,2.97468 ,2.97417 ,2.972996 ,2.972345 ,2.971782 ,2.970737 ,2.969429 ,2.968362 ,2.966954 ,2.966233 ,2.964712 ,2.963387 ,2.962291 ,2.960589 ,2.959356 ,2.957756 ,2.955883 ,2.95421 ,2.952845 ,2.951258 ,2.948894 ,2.947223 ,2.945562 ,2.943561 ,2.941266 ,2.939614 ,2.93745 ,2.935182 ,2.933171 ,2.93057 ,2.928317 ,2.925883 ,2.923653 ,2.921004 ,2.917903 ,2.91515 ,2.912625 ,2.909802 ,2.906848 ,2.903922 ,2.900869 ,2.898088 ,2.894717 ,2.891516 ,2.888673 ,2.885438 ,2.882213 ,2.878746 ,2.875166 ,2.87156 ,2.868394 ,2.864322 ,2.860609 ,2.85667 ,2.85326 ,2.848973 ,2.84487 ,2.841027 ,2.837056 ,2.83304 ,2.828743 ,2.824301 ,2.819509 ,2.8155 }

- strap_coord_Z = { -0.443495 ,-0.438606 ,-0.433672 ,-0.428779 ,-0.423789 ,-0.418845 ,-0.413863 ,-0.408851 ,-0.403898 ,-0.398823 ,-0.393767 ,-0.388732 ,-0.383613 ,-0.378536 ,-0.373413 ,-0.368304 ,-0.363119 ,-0.357983 ,-0.352761 ,-0.347585 ,-0.342387 ,-0.337169 ,-0.331978 ,-0.326717 ,-0.321468 ,-0.316274 ,-0.310965 ,-0.305723 ,-0.300364 ,-0.295092 ,-0.289773 ,-0.284499 ,-0.279104 ,-0.273742 ,-0.268374 ,-0.263007 ,-0.257654 ,-0.252243 ,-0.246859 ,-0.241432 ,-0.23604 ,-0.230615 ,-0.22518 ,-0.219753 ,-0.214296 ,-0.20885 ,-0.203395 ,-0.197941 ,-0.192457 ,-0.186976 ,-0.181505 ,-0.176024 ,-0.170527 ,-0.16501 ,-0.159486 ,-0.153991 ,-0.148445 ,-0.142902 ,-0.137355 ,-0.131816 ,-0.126251 ,-0.120692 ,-0.115126 ,-0.109555 ,-0.103973 ,-0.098385 ,-0.092802 ,-0.087212 ,-0.081624 ,-0.076017 ,-0.070417 ,-0.06481 ,-0.059204 ,-0.053588 ,-0.047968 ,-0.042362 ,-0.036734 ,-0.031113 ,-0.025486 ,-0.019851 ,-0.014217 ,-0.008575 ,-0.002932 ,0.002713 ,0.002713 ,0.008368 ,0.014024 ,0.019693 ,0.025358 ,0.031025 ,0.036691 ,0.042363 ,0.048023 ,0.053687 ,0.059351 ,0.065018 ,0.070683 ,0.076352 ,0.082032 ,0.08771 ,0.09338 ,0.099057 ,0.104742 ,0.110424 ,0.116103 ,0.121781 ,0.127468 ,0.13315 ,0.138841 ,0.144547 ,0.150202 ,0.155893 ,0.161548 ,0.16723 ,0.172914 ,0.178611 ,0.184248 ,0.189903 ,0.195589 ,0.201252 ,0.206899 ,0.212533 ,0.218181 ,0.223833 ,0.229456 ,0.235102 ,0.240719 ,0.24632 ,0.251965 ,0.257603 ,0.263197 ,0.26879 ,0.27438 ,0.280026 ,0.285553 ,0.291139 ,0.296705 ,0.302209 ,0.307764 ,0.313296 ,0.31877 ,0.324298 ,0.329812 ,0.335316 ,0.340816 ,0.346323 ,0.351767 ,0.357221 ,0.362621 ,0.368082 ,0.373442 ,0.378786 ,0.384139 ,0.389503 ,0.394821 ,0.40005 ,0.405305 ,0.410555 ,0.415816 ,0.421041 ,0.426232 ,0.431457 ,0.436641 ,0.441754 ,0.446842 ,0.451912 ,0.457012 }

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last update: 2013-10-22 by tjohnson

9.6.1.3.51 The Wall settings panel

The Wall settings panel is the list of variables following the line
`===== WALL SETTINGS =====`
Here is a description of the variables in this panel.

- **WALL_use_panel_settings:** If `TRUE` : use the Wall settings panel to configure the wall properties. If `FALSE` : ignore the Wall settings panel and use the input CPO.
- **WALL_machine_descriptions** : Select from where the Wall description should be taken:

  1. `from_input_CPO` : use the WALL CPO provided by the UAL
  2. `from_HCD_database` : use the a HCD-database entry for the tokamak being simulated (see list of available database entries (9.6.1.3.52)).
  3. `from_codeparameters` : Under development.

9.6.1.3.52 WALL configurations available in the HCD-database

Machine	Configuration name	Description
ITER	default	from the EDRG machine description database (2013)
JET	default	from the EDRG machine description database (2013)
AUG	default	from the EDRG machine description database (2013)
FTU	default	from the EDRG machine description database (2013)

9.6.2 IMP5HCD - the IMP5 Composite Actor for Heating and Current Drive

Purpose	Contact persons	Input	Output
Kepler-actor (29) for integrated modelling of Heating and Current Drive (EC,LH,IC,NBI,alphas-heating)	Thomas Johnson Lorenzo Figini	EU-ITM Plasma bundle (12.3.6) Required CPOs are: `antennas, nbi, wall, equilibrium, coreprof, coreimpur .` Manual setting (Kepler variables) selecting codes, synergy options, and certain modelling parameters.	Subset of the EU-ITM Plasma bundle (12.3.6)containing the CPOs: `waves, distsource, distribution, coresource`

The IMP5 Composite Actor for Heating and Current Drive is a multi layered composite actor. Each layer separates one different groups of models or codes, e.g.

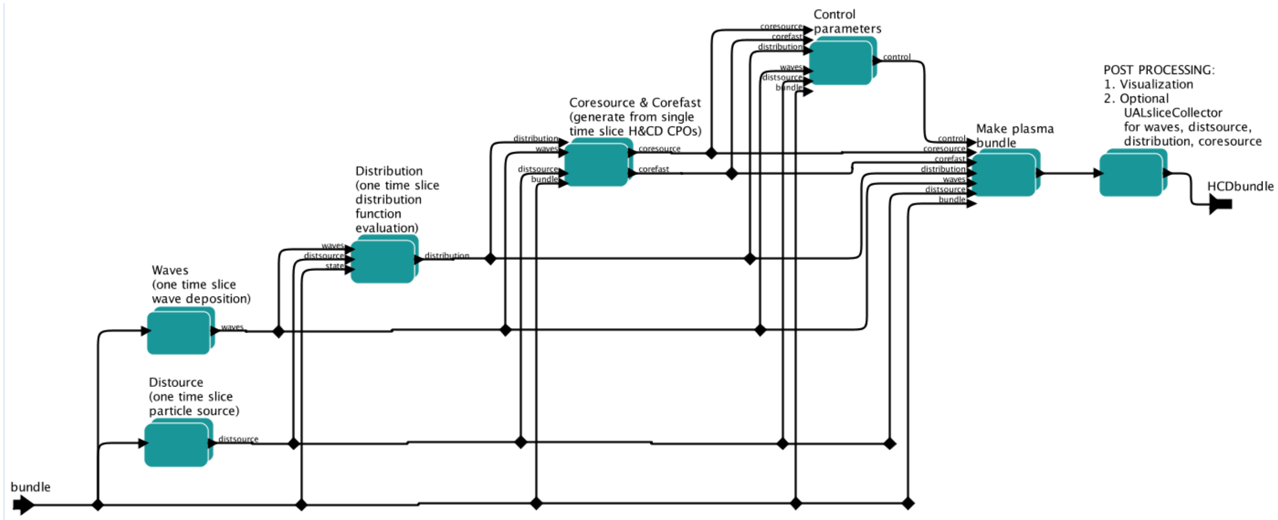
- the generation of CPOs (wave, distsource, distribution and coresource),
- the different heating schemes,
- ions and electrons solvers,
- ...all the way down to the level of Actors for physics models.

The composite actor takes as input the standardized EU-ITM Plasma bundle (12.3.6) and generates as output the CPOs `waves ,distsource ,distribution` and `coresouce` (bundled into a subset of the EU-ITM Plasma bundle).

The IMP5 Composite Actor for Heating and Current Drive is stored as part of the IMP5HCD-SA (9.6.1) workflow.

The IMP5HCD include a number physics codes. For a schort description of these codes and contact information, follow this link [724].

As an example we have below illustrations of some of the structure inside the composite actors for waves (9.6.2.4) and the composite actor for distribution (9.6.2.5).



9.6.2.1 Physics actors in IMP5HCD

Here follows a list of the heating and current drive actor released in the imp5hcd composite actor that have passed at least some elementary robustness tests and in most cases some form of verification. This list is likely to change within a few month time. For the latest details contact Thomas Johnson.

Date of last update: 2014-12-19

[724] `https://www.efda-itm.eu/ITM/html/.html#imp5_workflow__physics_actors`

Code name	Code Category	Contact persons	Short description
gray (9.4.1.1)	EC/waves	Lorenzo Figini	GRAY is a quasi-optical ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks. Documentation of code parameters [725].
travis (9.4.1.1)	EC/waves	Nikolai Marushchenko	Travis is a ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks.
Torray-FOM (9.4.1.1)	EC/waves	Egbert Westerhof	Torray-FOM is a ray-tracing code for electron cyclotron heating & current drive calculations in tokamaks.
bbnbi (9.4.2.3)	NBI/source	Otto Asunta	Calculate the deposition rates of neutrals beam particles, i.e. the input source for Fokker-Planck solvers (not the heating and current drive). Note that the number of markers generated by BBNBI is described by the kepler variable `number_nbi_markers_in` .
nemo (9.4.2.3)	NBI/source	Mireille Schneider	Calculate the deposition rates of neutrals beam particles, i.e. the input source for Fokker-Planck solvers (not the heating and current drive).
nuclearsim (9.4.2.4)	nuclear/source	Thomas Johnson	Simple code for nuclear sources from thermal/thermal reactions. Documentation of code parameters [726]
nbisim (9.4.2.5)	NBI+nuclear/Fokker-Planck	Thomas Johnson	Simple Fokker-Planck code calculating the collisional ion and electron heating from a particle source, either NBI or nuclear.
risk (9.4.2.5)	NBI Fokker-Planck	Mireille Schneider	Bounce averaged steady-state Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive.
spot (9.4.2.6)	NBI and ICRF Fokker-Planck	Mireille Schneider	Monte Carlo solver for the Fokker-Planck equation. Traces guiding centre orbits in a steady state magnetic equilibrium under the influence of Coloumb collisions and interactions with ICRF waves (through the RFOF library). The can also be used for NBI and alpha particle modelling as it can handle source terms from the distsource CPO.
ascot4serial (9.4.2.6)	NBI, alphas, ICRF / Fokker-Planck	Otto Asunta/Seppo Sipila	Monte Carlo Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive.
ascot4parallel (9.4.2.6)	NBI, alphas, ICRF / Fokker-Planck	Otto Asunta/Seppo Sipila	Monte Carlo Fokker-Planck solver calculating the collisional ion and electron heating from a particle source and the NBI current drive.
iccoup (9.4.2.1)	IC/coupling	Thomas Johnson	Simple model for the coupling waves from ion cyclotron antennas to the plasma.
LION	IC / waves	Olivier Sauter and Laurent Villard	Global ICRF wave solver
Cyrano	IC / waves	Ernesto Lerche and Dirk Van Eester	Global ICRF wave solver
Eve	IC / waves	Remi Dumont	Global ICRF wave solver
StixReDist	IC / waves	Dirk Van Eester and Ernesto Lerche	1d Fokker-Planck solver for ICRF heating.
ICDEP	IC / waves	Thomas Johnson	Generates Waves-cpo with an IC wave field with Gaussian deposition profiles described by a combination of antenna-cpo input and through code parameters input (see documentation of code parameters [727])

9.6.2.2 Non-physics actors in IMP5HCD

UNDER DEVELOPMENTS

Code name	Code Category	Contact persons	Short description
addECant	Antennas / generator	Thomas Johnson/Lorenzo Figini	Appends EC setting to an Antennas-cpo. The settings are provided as a combination of Kepler-input (for power and launching angles) and machine parameters that are hard-coded for each tokamak. In case the EC system of a tokamak is not implemented it uses the code-parameters from the writeECant actor (see documentation of code parameters [728])
addICant	Antennas / generator	Thomas Johnson	Appends IC setting to an Antennas-cpo. The settings are provided as a combination of Kepler-input, including the power, frequency and phasing. In case the IC machine parameters are not available in the input CPO, then these are filled with hardcoded parameters for a given tokamak.
nbifiller	NBI / generator	Thomas Johnson	Updates the time dependent NBI setting to an NBI-cpo. The settings are provided as a combination of Kepler-input, including the mass, charge, power, injection energy and the beam-power-fractions. In case the IC machine parameters are not available in the input CPO, then these are filled with hardcoded parameters for a given tokamak.
hcd2coresource	coresource-CPO / data-joiner	Thomas Johnson	Generates a Coresource-cpo from input Distsource, Waves and Distribution cpos.
waves2source	coresource-CPO / data-joiner	Lorenzo Figini	Generates a Coresource-cpo from input Waves cpo.

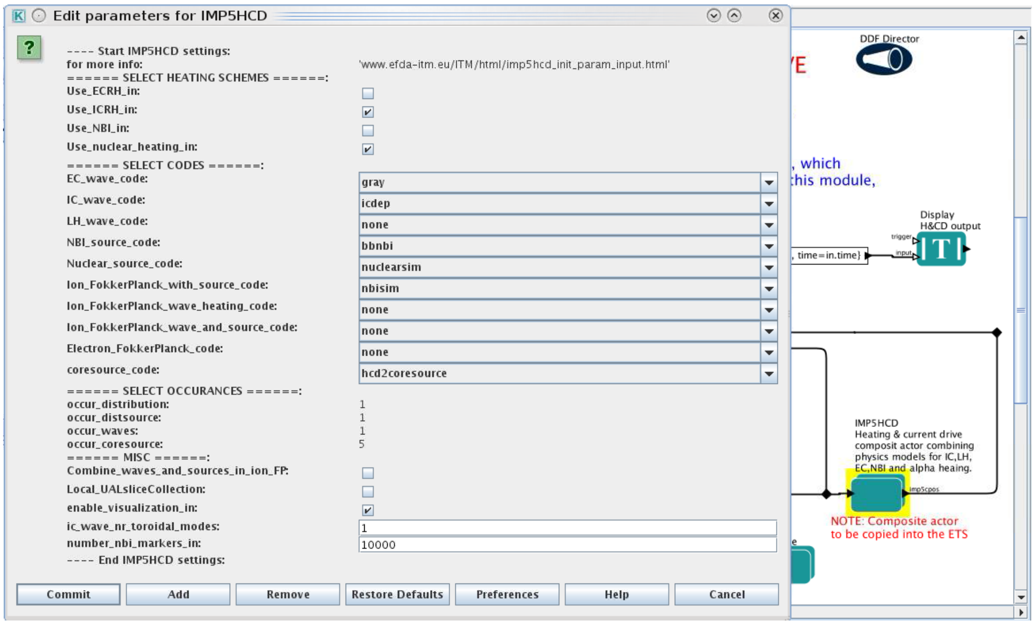
[725] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_gray.html
[726] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_nuclearsim.html
[727] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_icdep.html
[728] https://www.efda-itm.eu/ITM/html/imp5_code_parameter_documentation_writeECant.html

Code name	Code Category	Contact persons	Short description
hcd2corefast	coresource-CPO / data-joiner	Thomas Johnson	Generates a Corefast-cpo from the input Distribution cpo.
emptywaves	waves-CPO / generator	Thomas Johnson	Generates an empty Waves cpo.
emptydistsource	distsource-CPO / generator	Thomas Johnson	Generates an empty Distsource cpo.
emptydistribution	distribution-CPO / generator	Thomas Johnson	Generates an empty Distribution cpo.
emptycoresource	coresource-CPO / generator	Thomas Johnson	Generates an empty Coresource cpo.
emptycorefast	corefast-CPO / generator	Thomas Johnson	Generates an empty Corefast cpo.
merge4waves	waves-CPO / merger	Thomas Johnson	Mergers two Waves cpos.
merge4distsource	distsource-CPO / merger	Thomas Johnson	Mergers two Distsource cpos.
merge4distribution	distribution-CPO / merger	Thomas Johnson	Mergers two Distribution cpos.

9.6.2.3 Parameter input to IMP5HCD

UNDER CONSTRUCTION

Running IMP5HCD there are a number of workflow setting to consider.



9.6.2.3.1 Select Heating Schemes

These setting allow the user to turn on or off heating schemes.

9.6.2.3.2 Select Codes

Here the physics codes of different categories can be selected. More information about the codes one can choose from can be found here (9.4).

NOTE: Some codes that appear in the drop down menues may not yet be running with the latest version of the UAL, thus check the list of physics actors available in IMP5HCD (9.6.2.1).

NOTE: The codes selected here are only run if the corresponding heating scheme is selected in Select Heating Schemes (9.6.2.3.1). What codes are used also depends on setting in Misc (9.6.2.3.2), e.g. the variable `Combine_waves_and_sources_in_ion_FP` will switch between running the different ion Fokker-Planck codes:

- when Combine_waves_and_sources_in_ion_FP=TRUE , then the Fokker-Planck solver is selected from Ion_FokkerPlanc

- when Combine_waves_and_sources_in_ion_FP=FALSE , then the Fokker-Planck solver is selected from Ion_FokkerPlanck_with_source_code and Ion_FokkerPlanck_wave_heating_code .

9.6.2.3.3 Select Occurrences

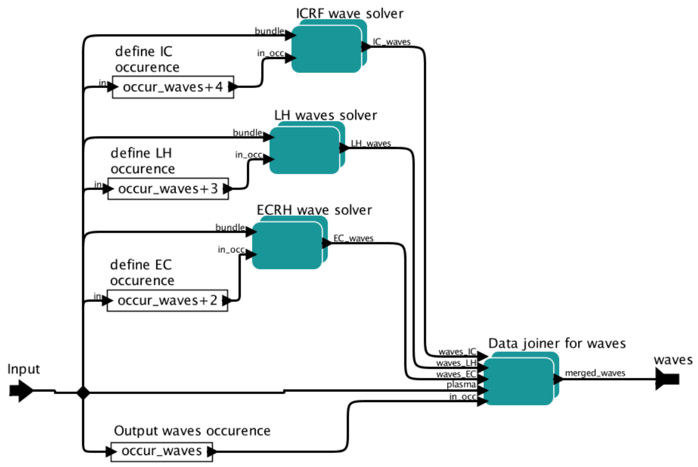
Selecting the first in s series of occurrence numbers. For advanced users only.

9.6.2.3.4 Misc

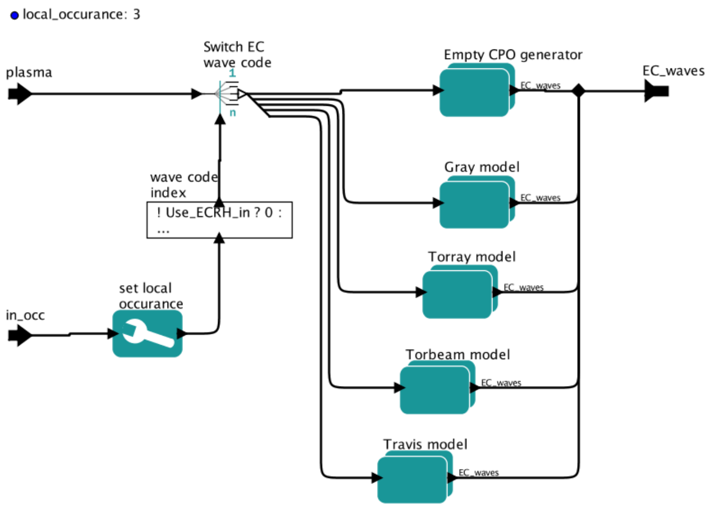
- **Combine_waves_and_sources_in_ion_FP** : Switch between using a single code for solving the ion Fokker-Planck equation including both wave and source heating, or to have two different solver calculating the heating from the wave and source terms.
- **Local_UALsliceCollection** : Enable UAL slice collection. Note that this parameter has to be switched off when running in the ETS.
- **enable_visualization** : Enable visualization. Note that this parameter has to be switched off in the ETS.
- **ic_wave_nr_toroidal_modes** : the number of toroidal Fourier modes to be used in the ICRF wave field.
- **number_nbi_markers_in** : the number of nbi markers to be used in Monte Carlo NBI solvers.

9.6.2.4 Composite Actor for Waves

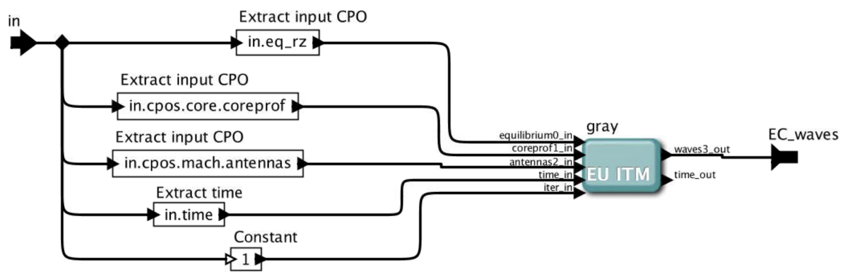
Wave field solvers in the IMP5 Composite Actor for Heating and Current Drive are collected in a composite actor, which in turns separates the different heating schemes ICRF, LH and ECRH. The three waves fields are then joined by a datajoiner for the waves CPO.



As an example we here show how the ECRH composite actor select the physics code to use from a long list. The variable that determines the selection is a global parameter ec_wave_code , set at the top-level of the composite actor IMP5HCD. Note that if you run IMP5HCD in the ETS ec_wave_code is set on a higher level.

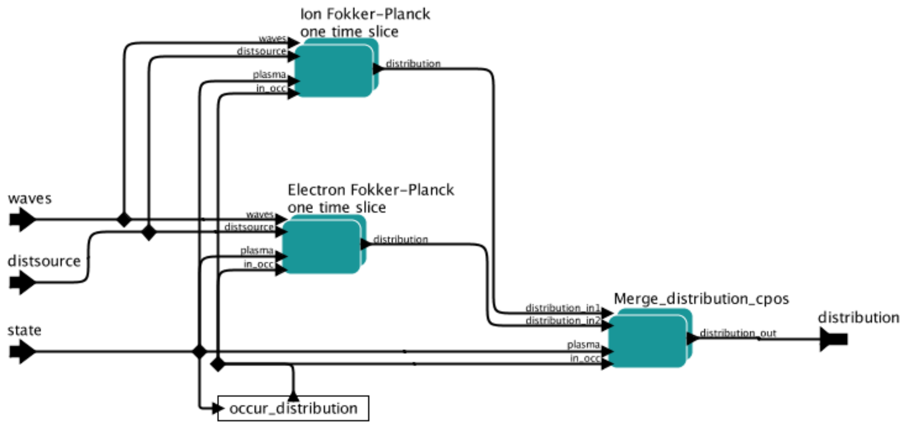


When selecting `ec_wave_code=gray` the workflow will entre the `Gray model` composite actor containing the Gray code (9.4.1.1), a ray tracer for EC waves.

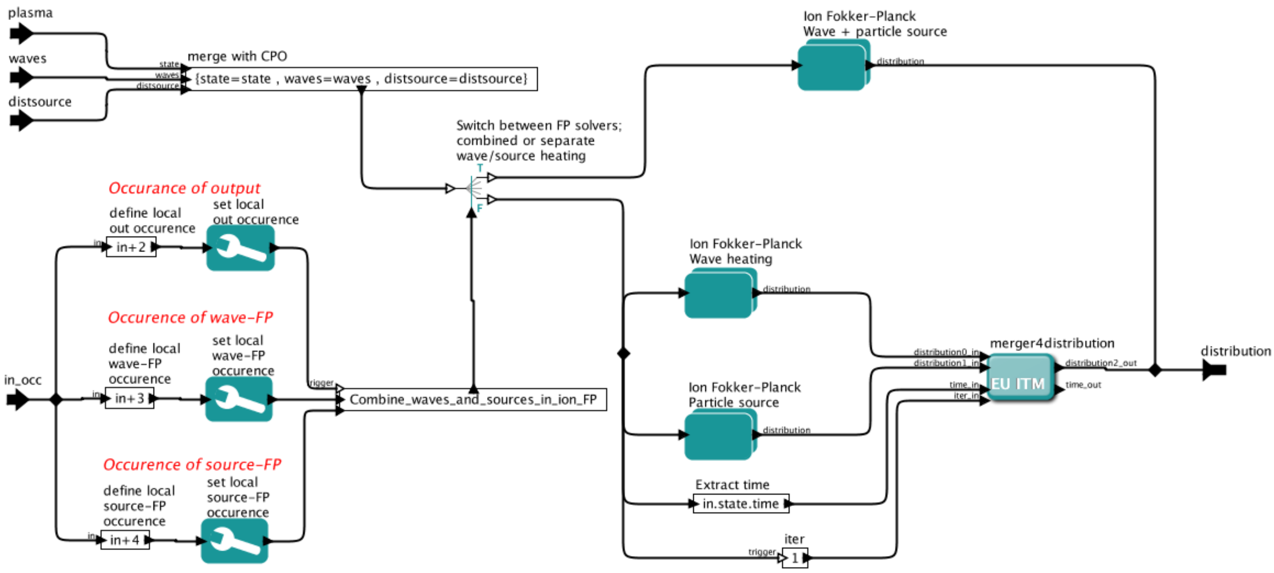


9.6.2.5 Composite Actor for Fokker-Planck

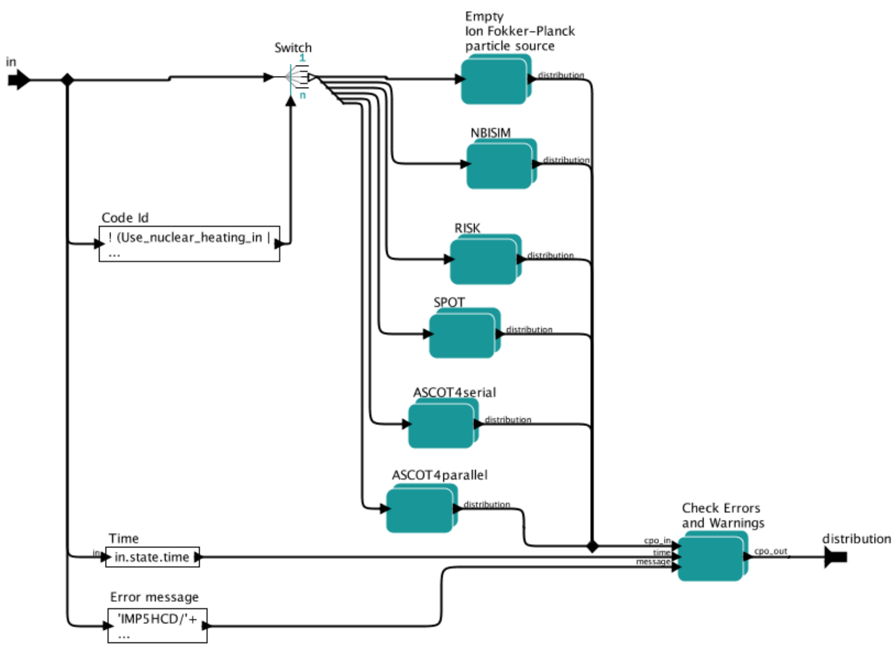
The composite actor for Fokker-Planck solvers are separated into solver for the electron and ion distribution function



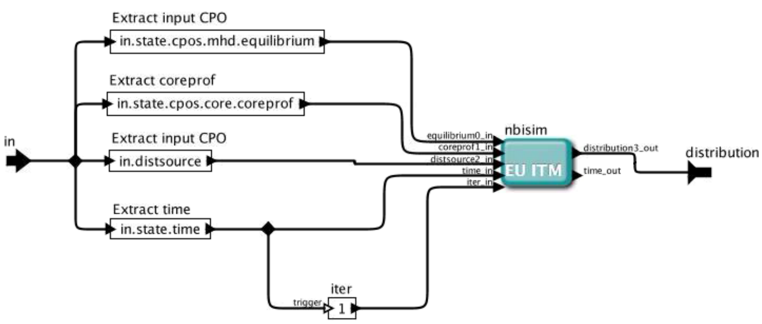
As an example is shown below the composite actor for the ion-Fokker Planck solvers. This solvers allows two different ways of operation, either the full Fokker-Planck equation is solved including both wave field acceleration and particle source terms (the box "Ion Fokker-Planck wave + particle source" in the figure), or alternatively the two effects (wave acceleration and particle source terms) are treated seperately in two different solver (...in the figure).



Next looking more carefully what's inside e.g. the "Ion Fokker-Planck particle source" box we find again both an Empty CPO Generator and a long list physics codes to choose between: `nbisim`, `risk`, `spot`, `ascot4serial`, `ascot4parallel` .



Finally, inside the NBISIM composite actor you find the nbisim actor.



9.6.2.6 CPOs-fields required for the IMP5HCD composite actor

An Actor running under IMP5HCD (9.6.2) have to fill in certain fields, or else the workflow will not work properly. Here follows a list of requirements in 4.08b, using Fortran notation; for C, Java, or matlab notation replace "%" by "." (a dot).

- `waves(.)%coherentwave(.)%grid_1d%rho_tor` (7.9.3.1.343)
  is required by imp5coresource (??). If this field is not filled, then the data in `waves(.)%coherentwave(.)` (7.9.3.1.77) will be discarded in the coresource output.

WARNING: This list is outdated. There are now a large number of reuqired fields that will be added to this list.

9.6.2.7 Error handling

When building advanced workflows like the IMP5HCD it is imparative that the individual components are robust and behaves in a controlled manner, even when the input is outside the conditions for validity. For this reason the ITM strongly encourage defensive programming (13.13).

The output of any ITM actor should in addition always provide error messages the output CPOs. Every CPO therefore includes a derived datatype called codeparam (located directly under the root of every CPO), which contains the field output_flag in which the error flag should be stored, see above.

< *any-cpo* >`%codeparam%output_flag` (7.9.3.1.343)	Integer output flag: 0 means the run was successful and can be used in the rest of the workflow, <0 means failure

last update: 2015-07-10 by tjohnson

9.6.3 IMP5 contributions to ETS

The IMP5 codes have been included in the ETS using the IMP5HCD [729] composite actor. In addition a composite actor for generating an initial state of the IMP5 cpos, including the input cpos Antennas and NBI has been provided.

9.6.3.1 Import a new version of IMP5HCD into the ETS

Importing the IMP5HCD into the ETS is still not done automatically. Here follows a description for how to import a new version of the IMP5HCD into the ETS.

9.6.3.1.1 Export IMP5HCD composite actors

The first step is to extract composite actors from the IMP5HCD_SA. To do this, go to the directory `imp5hcd/` and run the command:

```
make composite_actors
```

This will add the composite actors `IMP5HCD` , `IMP5HCD_CORE` and `initial_IMP5_state` as actors in your kepler folder.

9.6.3.1.2 Transfer IMP5HCD settings

First, note that these setting only need to be transferred when the setting parameters used in the IMP5HCD has been changed. Also, the setting cannot be transferred in the Kepler-gui. Instead this can be done directly in the xml using a text editor.

First step here is to copy the setting from the file `imp5hcd_sa.xml` . To copy the settings copy all text starting from the element named

[729] https://www.efda-itm.eu/ITM/html/.html#imp5_compositeactor_imp5hcd

```
---- Start IMP5HCD settings
```

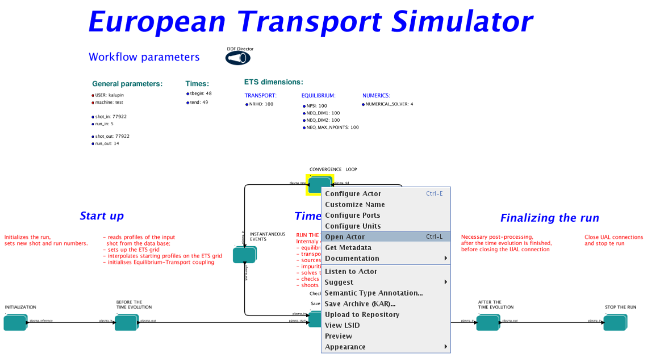
and ending with the element

```
---- End IMP5HCD settings
```

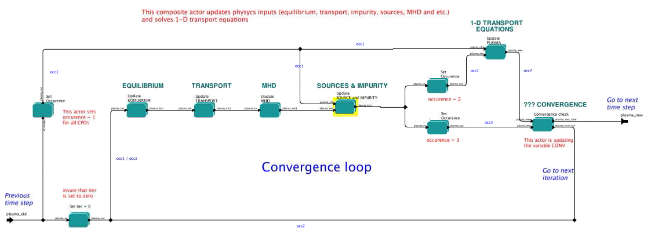
Then replace the corresponding section in the file ETS_WORKFLOW.xml .

9.6.3.1.3 Import IMP5HCD_CORE composite actors

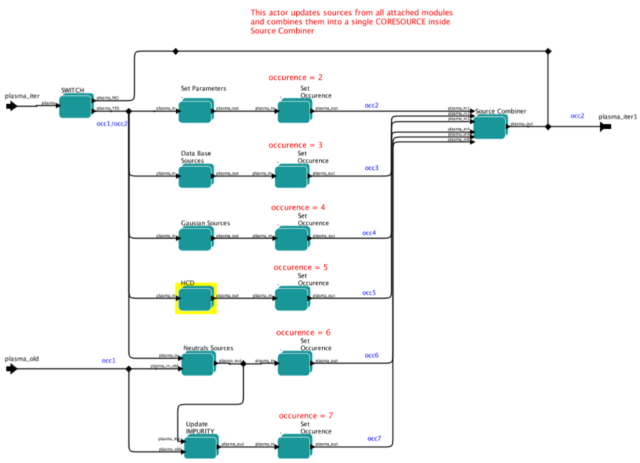
Next, download the ETS workflow, import the ETS actors and open the workflow (here are detailed instructions for each of these steps [730]) . Inside the ETS we find the IMP5HCD by first opening up the "Convergence Loop"



Here we may edit the IMP5HCD settings by double clicking on the actor "Update SOURCE and IMPURITY". Next, open "Update SOURCE and IMPURITY"

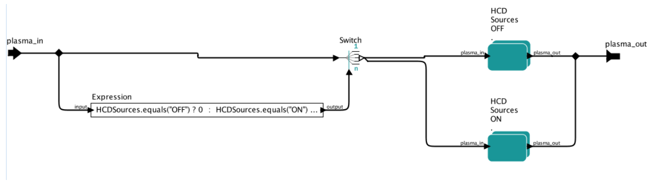


Open the "HCD"

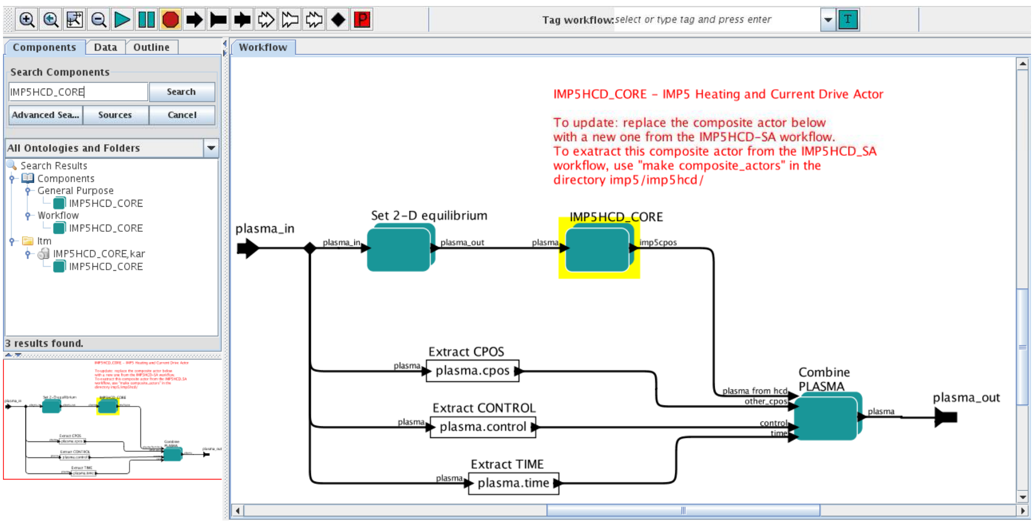


Open the "HCD Sources ON"

[730] https://www.efda-itm.eu/ITM/html/.html#ETS_A_KEPLER

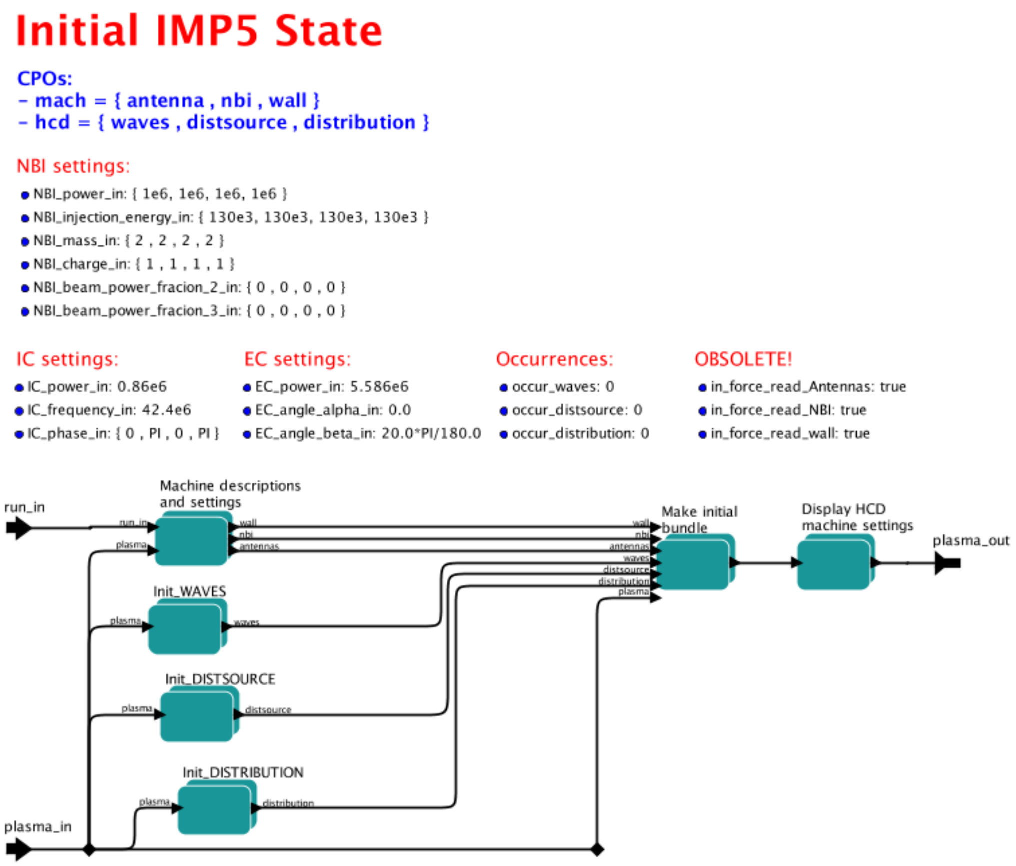


We are now at the place where the "IMP5HCD_CORE" should be imported. First, identify the old version of IMP5HCD Actor, marked in yellow in the figure below. Then search for the "IMP5HCD_CORE" among *Components/Search Components* , as shown in the figure below. Drag the "IMP5HCD_CORE" into the workflow to replace the old version.

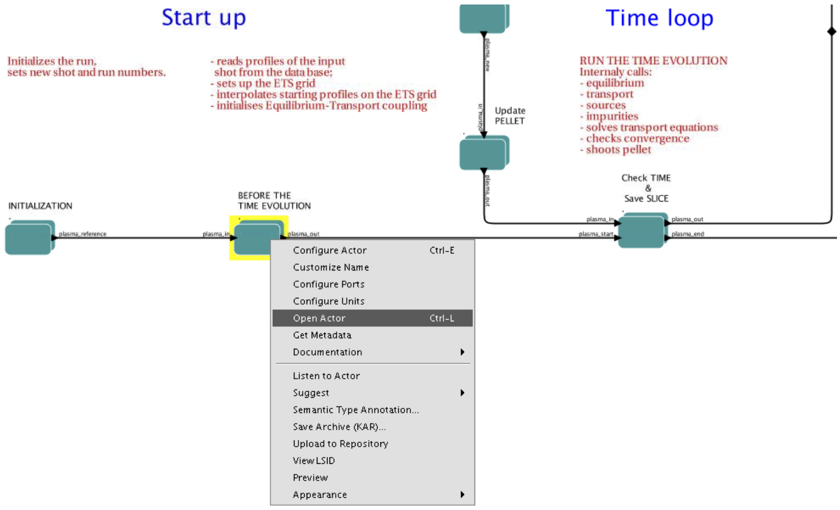


9.6.3.2 Import a new version of "initial_imp5_state" into the ETS

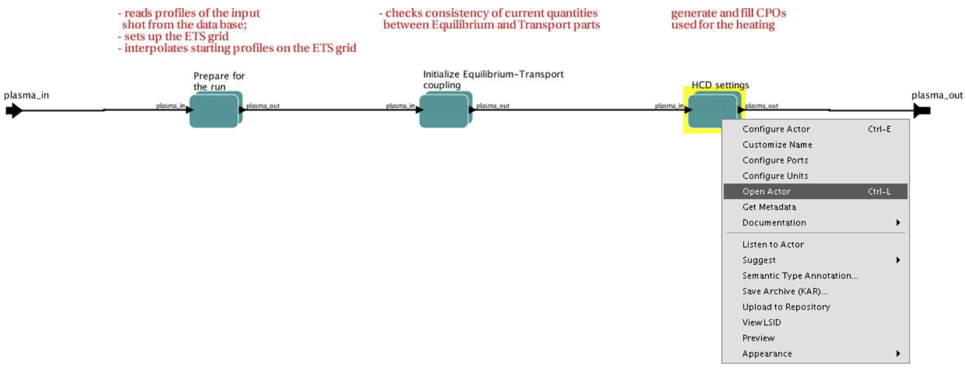
Here follows a description for how to import a new version of the composite actor "initial_imp5_state" into the ETS.



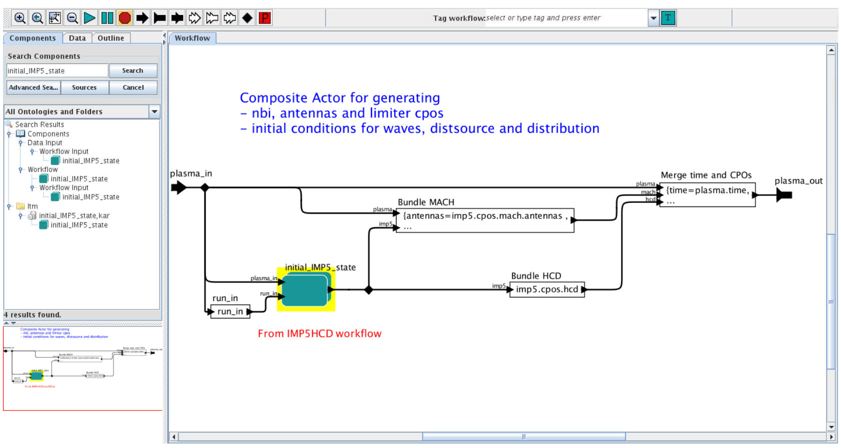
The first step to import the "initial_IMP5_state" is to extract the composite actor, as described here (9.6.3.1.1). Next open the workflow `ETS_WORKFLOW.xml` In the ETS_WORKFLOW_V2.1.xml workflow, open the Actor "BEFORE THE TIME EVOLUTION"



Next, open the Actor "HCD settings"



We're now at the place where the new "initial_imp5_state" Actor should be imported. First, identify the old version of the Actor, marked in yellow in the figure below. Then search for the "initial_imp5_state" among *Components/Search Components* , as shown in the figure below. Drag the "initial_imp5_state" into the workflow to replace the old version.



9.6.3.3 Proceedure for providing a physics module to the IMP5HCD and the ETS

The following is a proceedure for coupling an actor (physics module) to the ETS:

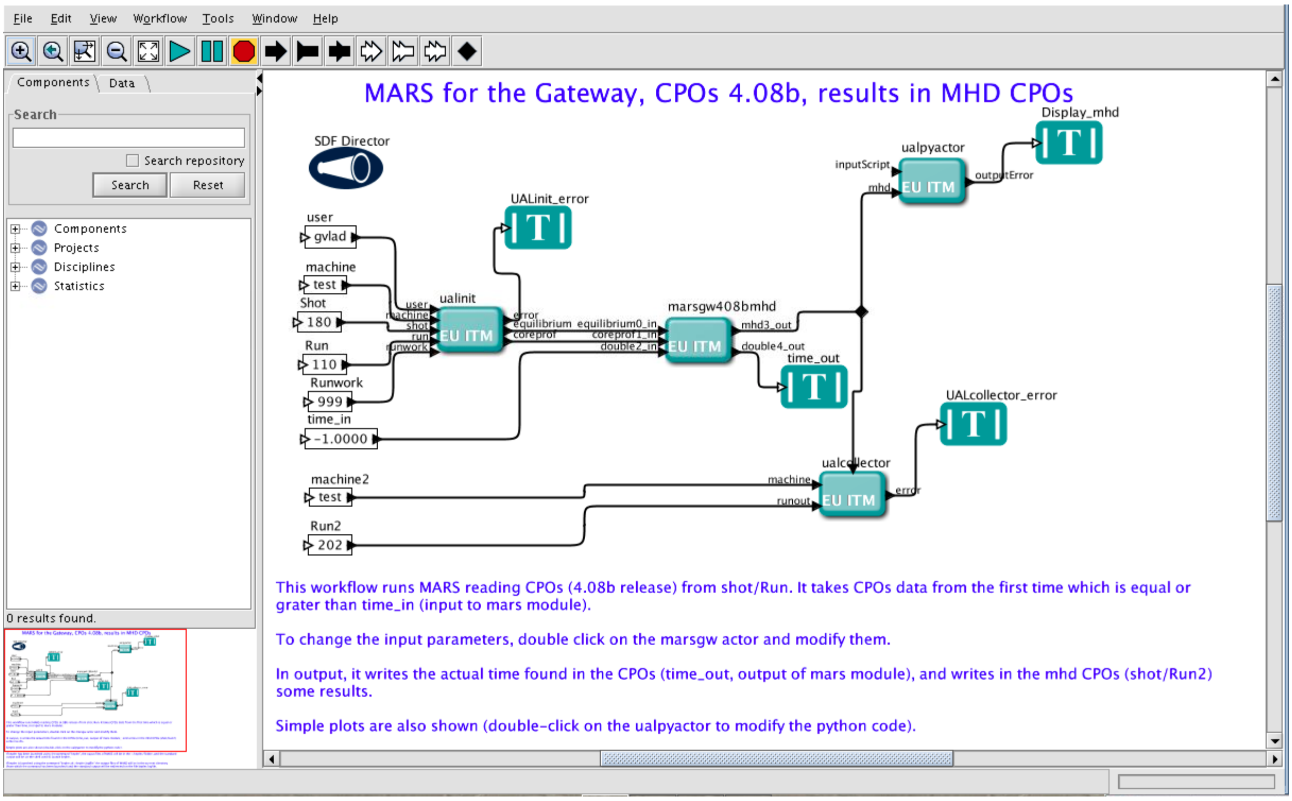
1. Build an single-code-workflow for testing your actor. This workflow may include only UALinit, the actor with "your physics module" and the UAL collector; all coupled serially. One such example is the Mars workflow (9.6.4), which include also advanced features like a phytons visualisation actor.

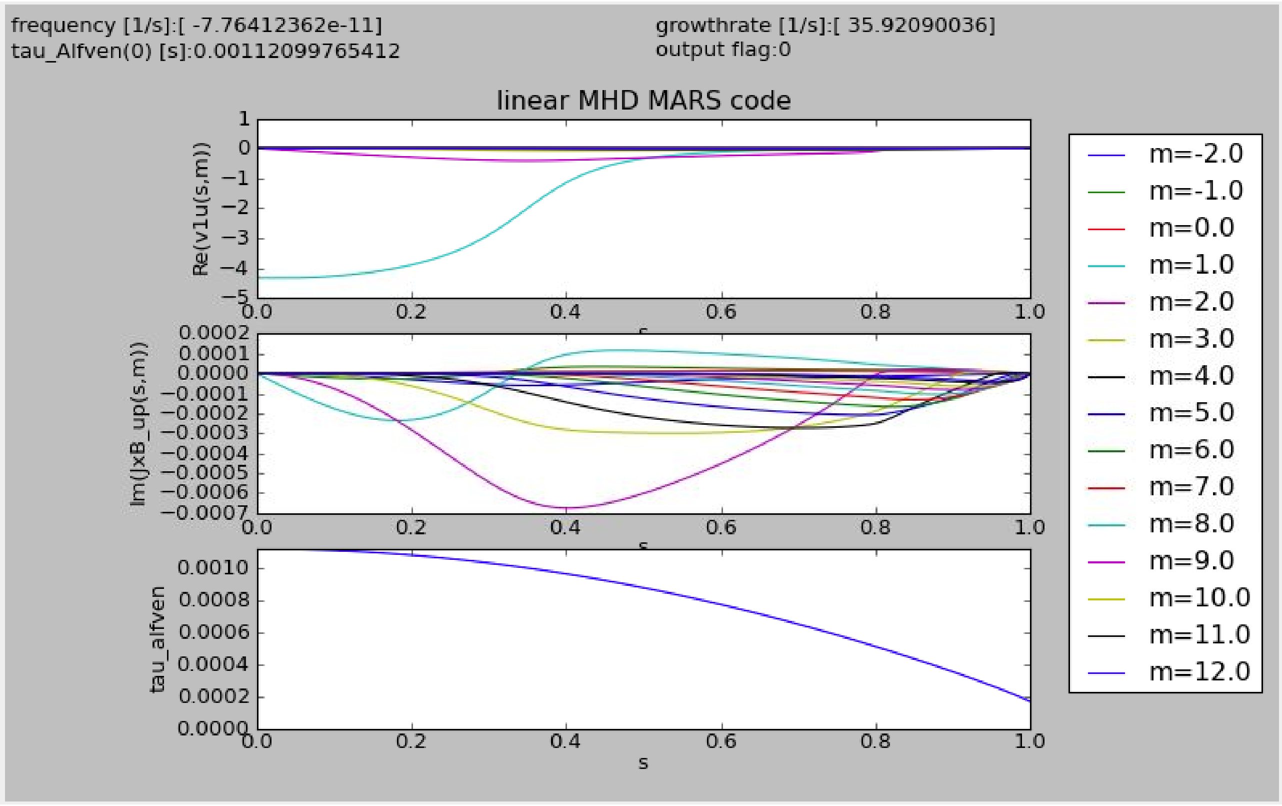
2. Verify that your actor reproduces results obtained in previous non-Kepler based version of your code
3. Download the IMP5HCD-SA workflow (see Accessing the IMP5HCD-SA workflow (9.6.1.2))
4. Import your actor into the IMP5HCD
5. Verify that you get the same result that you got in your single-code-workflow
6. Download the ETS workflow
7. Import your version of the IMP5HCD into the ETS workflow (see Import IMP5HCD into the ETS (9.6.3.1))
8. Verify that your code give the correct result in the ETS
9. Verify that your is correctly captured in the coresource CPO generated by the workflow

9.6.4 Workflow for MARS (MHD module of HYMAGYC)

This workflow reads equilibrium and coreprof CPOs and solves the linear MHD stability equations; some ouputs (mhd CPOs is still in a preliminary version) are stored in mhd CPOs and then plotted using a python actor (see figure below, which refers to a n=1 internal kink in a JET-like equilibrium).

Type	Actors	Input CPOs	Output CPOs
linear MHD module for HYMAGYC	ualinit marsgw408b ualpyactor ualcollector	equilibrium coreprof	mhd

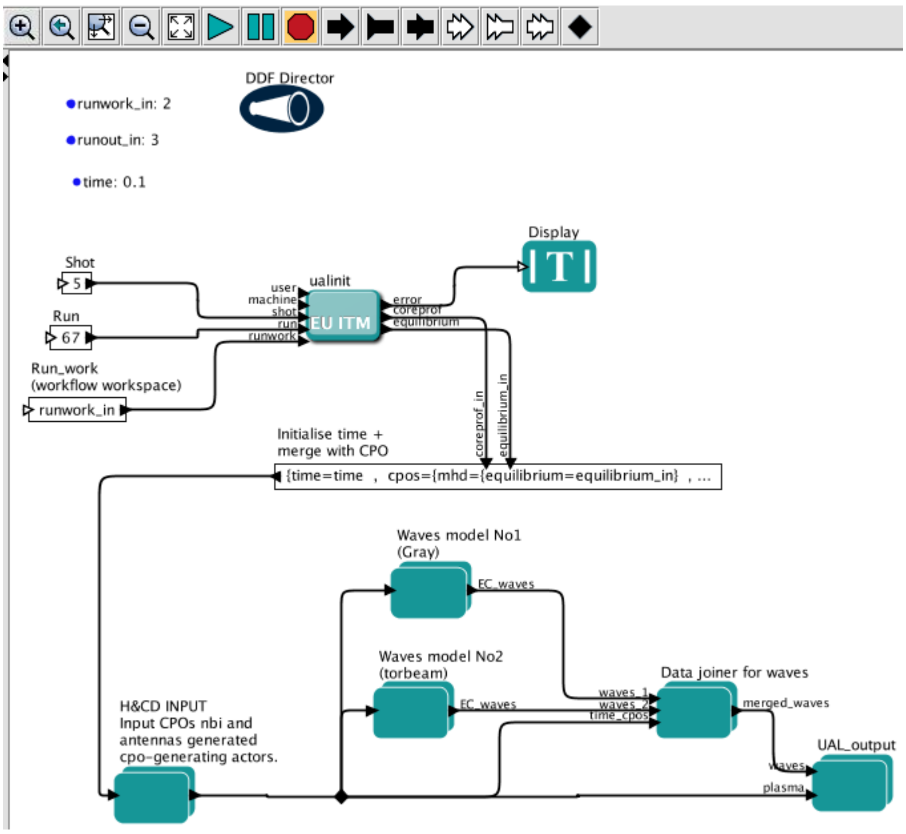




9.6.5 Workflow for code-code Benchmarking

NOTE: this workflow was developed for 4.08b.

The IMP5 has developed a workflow for benchmarking wave codes generating the `waves` as output. The default version runs the two EC wave code GRAY and TORBEAM as shown below. The wprlflow runs the two codes in parallel and then merges the `waves` output from the two codes into a single `waves` CPO. Thus, the data from the two codes appear as `waves(1)%coherentwave(1)` and `waves(1)%coherentwave(2)` .



Contact persons: Thomas Johnson (4831) (skype: tjohn74)

The waves_benchmark workflow can be found in the GFORGE (29) repository KeplerWorkflows [731]. For checking out a local copy of the 4.08b version of the workflow:

```
svn co https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.08b/imp5/benchmark/
```

For more information, see the file README_waves_benchmark (stored in the repository).

---

last update: 2019-01-31 by g2dpc

9.7 IMP5 Shots

Below are lists of shots available in the imp5-shot database; found in the public directory of the user wwwimp5.

```
~wwwimp5/public/itmdb/itm_trees/<machine>/<UAL>/mdsplus/0/
```

where <machine> is the name of the machine, e.g. "test", "jet", or "asdex" and <UAL> is the version number of the UAL, e.g. "4.09a" or "4.10a".

9.7.1 UAL Version 4.09a

The shots can be accessed by setting

```
UAL = 4.09a
```

9.7.1.1 Machine: TEST

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the database, and a short description.

Shot	Run	CPOs	user	generated with	description
5	67	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
	1067	equilibrium coreprof antennas waves	Figini / Coster	Gray processing of machine=test/shot=5/run=67 from ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.

9.7.1.2 Machine: ASDEX

The shots can be accessed by setting

```
TOKAMAKNAME = aug
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the database, and a short description.

[731] https://gforge6.eufus.eu/project/keplerworkflows/

Shot	Run	CPOs	user	generated with	description
20116	502	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ASDEX plasma (possibly shot 20116, run 2 documented in the IMP12 page, reprocessed using the ETS).

9.7.1.3 Machine: JET

The shots can be accessed by setting

```
TOKAMAKNAME = jet
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
10	6	equilibrium coreprof...	huynh?		JET shot 77922 using nclass, bgb, equilibre chease, and transport solver equation in te, ti et psi. The shot starts from 48.488s to 57.2283s. Default input to the CEA-ETS workflow.
77922	1	equilibrium coreprof...	kalupin?		JET shot 77922. Taken from the imp3/ets repository 22 November 2011. Default input to the IPP/IST-ETS workflow.
71827	1	equilibrium coreprof...	kalupin?		JET shot 71827. Taken from the imp3/ets repository 22 November 2011.

9.7.2 UAL Version 4.10a

The shots can be accessed by setting

```
UAL = 4.10a
```

9.7.2.1 Machine: TEST

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
5	67	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
	68	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
77299	12	equilibrium coreprof ??	Kalupin	ETS-A workflow	Unknown.

last update: 2013-03-29 by tjohnson

9.8 Meetings

9.8.1 2010/09/13-17 ITM General Meeting in Lisbon

9.8.1.1 Posters

- *GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks* (pdf [732]) (pptx [733]), by Daniela Farina and Lorenzo Figini
- *Numerical Codes for Electron Cyclotron heating and Current Drive* (pdf [734]), by Egbert Westerhof and Nicola Bertelli
- *Neutral Beam Injection in ITM* (pdf [735]) (ppt [736]), by Mireille Schneider and Lars-Göran Eriksson
- *Modelling NBI in ITM environment with ASCOT* (pdf [737]), by Otto Asunta and Seppo Sipilä;
- *IMP5 / ACT4: RF Monte Carlo library for orbit following codes* (pdf [738]) (ppt [739]), by Thomas Johnson
- *Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method* (pdf [740]), by György Steinbrecher
- *Fast Particles activities during WP10* (pdf [741]), by Gregorio Vlad

9.8.1.2 Code overview talks

- *GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks* (pdf [742]) (pptx [743]), by Daniela Farina and Loretzo Figini
- *Numerical codes for electron cyclotron heating and current drive* (pdf [744]), by Nicola Bertelli and Egbert Westerhof
- *TORBEAM: Physical Model* (pdf [745]) (ppt [746]), by Nicola Bertelli and Egbert Westerhof
- *Full-wave modelling of electromagnetic wave propagation with the code FWTOR* (pdf [747]) (ppt [748]), by Christos Tsironis
- *Fast ICRH code for routine analysis* (pdf [749]) (ppt [750]), by Torbjörn Hellsten

[732] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[733] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pptx
[734] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[735] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[736] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[737] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[738] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.pdf
[739] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.ppt
[740] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf
[741] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[742] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[743] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pptx
[744] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[745] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
[746] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.ppt
[747] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[748] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[749] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.pdf
[750] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.ppt

- *Modelling NBI in ITM environment with ASCOT* (pdf [751]), by Otto Asunta and Seppo Sipilä
- *Present status of NBI codes for ITM* (pdf [752]) (pptx [753]), by Mireille Schneider
- *Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core* (pdf [754]), by Tony Cooper
- *IMP5 / ACT4: RF Monte Carlo library for orbit following codes* (pdf [755]) (ppt [756]), by Thomas Johnson
- *Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method* (pdf [757]), by György Steinbrecher
- *IMP5: Energetic Particles* (pdf [758]) by Gregorio Vlad
- *Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles* (pdf [759]), by Gregorio Vlad

9.8.1.3 Talks on infrastructure and tools

- *IMP5 CPOs* (pdf [760]) (ppt [761]), by Thomas Johnson
- *Quick introduction to documentation with Doxygen* (pdf [762]) (ppt [763]), by Thomas Johnson
- *IMP5: ITM tools a quick start* (pdf [764]) (ppt [765]), by Thomas Johnson

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last update: 2015-07-23 by tjohnson

9.8.2 2011 Code Camp in Prague, 11-15 July

- *Analysis of Runaway Electrons by Numerical Algorithms* (pdf [766]), by G. Csepany
- *GRAY code status* (pdf [767]), by L. Figini
- *Ray-Tracing Code TRAVIS* (pdf [768], ppt [769]), by N. Marushchenko

[751] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[752] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[753] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[754] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[755] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.pdf
[756] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.ppt
[757] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Steinbrecher_ITM-GM2010.pdf
[758] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_Energetic_Particles_ITM_GM2010.pdf
[759] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_HMGC_HYMAGYC_ITM_GM2010.pdf
[760] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[761] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.ppt
[762] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[763] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.ppt
[764] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf
[765] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.ppt
[766] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf
[767] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[768] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
[769] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.ppt

- *IMP5 tools in 4.09a* (pdf [770], pptx [771]), by T. Johnson
- *Code Camp report* (pdf [772], ppt [773]), by V. Goloborodko

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last update: 2011-09-19 by tjohnson

9.8.3 2011 General ITM meeting in Garching, 12-16 September

9.8.3.1 Plenary talks by IMP5

- *Integration of heating and fast particles models* (ppt [774]), by Thomas Johnson

9.8.3.2 Summary talks by IMP5

- *IMP5 Summary* (pdf [775]), by Daniela Farina

9.8.3.3 Progress reports during IMP5 session

- *IMP5: Energetic Particles* (ppt [776], pdf [777]), by G. Vlad
- *ARENA+ in ITM* (pdf [778]), by G. Pokol
- *TORBEAM for ITM* (ppt [779], pdf [780]) by E. Poli
- *Ray-Tracing Code TRAVIS* (ppt [781], pdf [782]), by N. Marushchenko
- *SELFO-light and advanced Fokker-Planck developments* (ppt [783], pdf [784]), by T. Hellsten
- *GRAY: quasi-optical ray-tracing code for ECH/CD* (pdf [785]), by L. Figini

9.8.3.4 Talks on infrastructure and tools

- *Training: The IMP5HCD workflow* (pdf [786]), by Thomas Johnson

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last update: 2011-09-28 by tjohnson

[770] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
[771] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pptx
[772] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Victor--code_camp_report__prague_cc2011.pdf
[773] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Victor--code_camp_report__prague_cc2011.pdf
[774] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt
[775] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Farina_IMP5_Summary.pdf
[776] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[777] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.pdf
[778] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Pokol_ARENA.pdf
[779] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.ppt
[780] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.pdf
[781] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[782] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.pdf
[783] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[784] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.pdf
[785] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
[786] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf

9.8.4 2011 Code Camp in Innsbruck, 28 November-11 December

The participation of the IMP5 in the Innsbruck Code Camp was discussed at the General Meeting in Garching. The preliminary plan is that the IMP5 will participate both weeks of the Code Camp.

- **Week 1:** Focus on integration with the aim of having as many as possible present to reach a critical mass of modellers so that we can help each other.
- **Week 2:** Focus on integration into the ETS. Also integration will take place, but there will be fewer people there to ask for help.

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last update: 2011-09-19 by tjohnson

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last update: 2011-09-19 by tjohnson

9.9 IMP5 Benchmarking

9.9.1 Report from the 2014 benchmarking activities

- Report on IC benchmarking in 2014 [787]
- Report on EC benchmarking in 2014 [788]
- Report on NBI benchmarking in 2014 [789]

9.10 Private IMP5 pages

To access the private IMP5 pages [790], an IMP5 password is needed.

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last update: 2015-04-20 by tjohnson

10 ISM

10.1 Scientific Rationale and Main Objectives

Integrated scenario modelling is essential for understanding the physics of magnetically confined fusion plasmas, prediction and optimisation of plasma performance. The main objectives of the ISM group within the ITM TF are to provide support to:
- interpretative and predictive scenario modelling on existing EU tokamaks addressing the physics and operational issues
- scenario modelling activities to cover the preparation of operational scenario for ITER, JT60-SA, DEMO

10.2 ISM activities

ACT1: Support to the validation and physics application of the ETS and ITM tools
ACT2: Interpretative and predictive scenario modelling on existing devices
ACT3: Support to predictive scenario modelling for future devices (e.g. JT60-SA, ITER, DEMO)

10.3 Meetings

10.3.1 2010/09/13-17 ITM General Meeting in Lisbon and ISM Working Session

10.3.1.1 1.Monday

- *Integrated Scenario Modelling, ISM, Workprogramme* (pdf [791]), by X.Litaudon
- *ITER Hybrid Regime: modelling requests* (pdf [792]), by W.Houlberg

787 https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/
788 https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
789 https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
790 https://www.efda-itm.eu/IMP5/html/index.html
791 https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Litaudon.pdf
792 https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf

- *JET hybrid regime: requests for modelling* (pdf [793]), by E.Joffrin
- *Modelling of hybrid regime - present status* (pdf [794]), by V.Parail
- *ASDEX Upgrade hybrid regime: requests in terms of modelling* (pdf [795]), by J.Hobirk

10.3.1.2 2.Tuesday

- *Validation and verification of the European Transport Solver* (pdf [796]), by D.Kalupin

10.3.1.3 3.Wednesday

- *Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP* (ppt [797]), by I.Voitsekhovitch
- *Report on paper on density and fuelling on ITER* (ppt [798]), by L.Garzotti
- *Current ramp-up wrapup and publication* (ppt [799]), by F.Imbeaux

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last update: 2011-02-10 by konz

10.3.2 ISM Working Session November 29 - December 3 2010 JET/Culham, UK

10.3.2.1 1.Monday

- *Welcome and agenda* (pdf [800]), by I.Voitsekhovitch
- *Current rampdown at JET: experimental results and modelling tasks* (pdf [801]), by I.Nunes
- *Hybrid experiments for ISM modelling* (ppt [802]), by E.Joffrin

10.3.2.2 2.Tuesday

10.3.2.2.1 DT discussion

- *Agenda* (ppt [803]), by I.Voitsekhovitch
- *JET DT fusion yield projections* (ppt [804]), by C.Challis
- *Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement* (ppt [805]), by H.Weisen
- *JET high field/high current H-mode - extrapolation to DT operation* (ppt [806]), by I.Voitsekhovitch

[793] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf
[794] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
[795] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[796] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt
[797] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[798] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[799] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[800] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[801] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[802] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Joffrin-ISM-29-11-2010.ppt
[803] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Agenda_DT.ppt
[804] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Challis_DT_fusion_yield_projections_ISM_30Nov2010.ppt
[805] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Thomasalphaheatingsummary.ppt
[806] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/DT_Hmode_Voits.pdf

10.3.2.2.2 Reports from working session

- *Current diffusion analysis on JET hybrid shots* (ppt [807]), by J.Garcia
- *New simulations of ITER hybrid scenario* (ppt [808]), by J.Garcia
- *ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results* (ppt [809]), by F.Koechl

10.3.2.3 3.Wednesday

- *Parameters for EPED simulations* (ppt [810]), by X.Litaudon
- *Integrated ITER scenario modelling and density evolution prospects* (ppt [811]), by S.Wiesen

10.3.2.4 5.Friday

- *Impurity concentration during the current ramp up* (ppt [812]), by P.Belo
- *Predictive modelling of current ramp-down in JET discharges* (pdf [813]), by J.Lonnroth
- *JET current ramp down with METIS code* (ppt [814]), by J.F.Artaud
- *Update on ISM-P2-2010/11-08: ASDEX hybrid modelling* (ppt [815]), by J.Citrin
- *#77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data* (ppt [816]), by F.Koechl
- *Optimising ITER current ramp up for hybrid scenario* (ppt [817]), by D.Hogeweij
- *Parameter domain exploration with METIS for the ITER hybrid scenario* (ppt [818]), by E.Nardon
- *Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA* (ppt [819]), by I.Voitsekhovitch
- *Very preliminary JT-60SA modelling with METIS code - Scenario #4* (ppt [820]), by X.Litaudon
- *Conclusion working session Culham* (ppt [821]), by X.Litaudon

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last update: 2012-05-16 by voitsekh

10.3.3 ISM Working Session March 7 - 11 2011 Cadarache, France

10.3.3.1 1.Monday

- *Agenda* (pdf [822]), by X.Litaudon

[807] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/neocladif.ppt
[808] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/newhybrid.ppt
[809] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[810] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
[811] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[812] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[813] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
[814] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Artaud_rampdown.ppt
[815] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt
[816] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JET_77922_77914_JETTO_Koechl.ppt
[817] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt
[818] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[819] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
[820] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[821] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[822] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf

10.3.3.2 2.Tuesday

10.3.3.2.1 ISM-IO core-SOL integrated modelling meeting

- *Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives* (ppt [823]), by I.Voitsekhovitch
- *ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling* (ppt [824]), by W.A.Houlberg
- *On core-SOL Integration in Scenario Modelling for ITER* (pdf [825]), by A.S.Kukushkin
- *Integrated ITER scenario modelling and density evolution prospects* (pdf [826]), by S.Wiesen
- *Fully predictive modelling of L-H and H-L transition* (ppt [827]), by V.Parail
- *ETS* (ppt [828]), by D.Coster

10.3.3.2.2 Reports from working session

- *Simulations of the H to L transition in JET plasmas* (ppt [829]), by P.Belo
- *Current diffusion analysis on JET hybrid shots* (pdf [830]), by J.Garcia

10.3.3.3 3.Wednesday

- *Current diffusion analysis on JET hybrid shots* (pdf [831]), by J.Garcia
- *Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up* (ppt [832]), by I.Voitsekhovitch

10.3.3.4 4.Thursday

- *JT-60SA: operational scenarios and assessment of the plasmas* (ppt [833]), by G.Giruzzi
- *First CRONOS simulation of JT60-SA* (pdf [834]), by M.Schneider
- *LHCD in JT60_SA: a preliminary study* (pdf [835]), by E.Barbato

10.3.3.5 5.Friday

- *Next ISM working session: a word from the LOC* (pptx [836]), by D.Hogeweij
- *Status of edge modelling with EDGE2D for ITER Hybrid Scenaio* (ppt [837]), by D.Harting
- *SOUL1D benchmark using EDGE2D models and JET reference shots* (ppt [838]), by C.Guillemaut

[823] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt
[824] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
[825] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/AK-ISM.pdf
[826] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[827] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
[828] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[829] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[830] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
[831] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/hybrid_garcia_ism_meeting.pdf
[832] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt
[833] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
[834] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf
[835] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[836] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[837] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[838] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt

- *Predictive modelling of H-L transition in JET* (ppt [839]), by V.Parail
- *Report on AUG modelling* (ppt [840]), by J.Hobirk
- *ETS validation* (ppt [841]), by V.Basiuk
- *Report on ISM WS: ACT1* (ppt [842]), by I.Voitsekhovitch
- *Optimizing ITER current ramp-up for hybrid scenario* (ppt [843]), byD.Hogeweij
- *ITER hybrid density modelling: current status* (ppt [844]), byF.Koechl
- *Optimisation of operational space for long pulse scenarios* (doc [845]), by A.Polevoi
- *Optimisation of operational space for long pulse scenarios: xml table* (xml [846]), by A.Polevoi
- *Residual fuelling by LFS hydrogen pellets in He plasmas* (doc [847]), by A.Polevoi
- *First modelling of JT-60SA* (ppt [848]), by G.Giruzzi

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last update: 2012-03-28 by coster

10.3.4 ISM Working Session July 4 - 8 2011 FOM, Netherland

10.3.4.1 1.Monday

- *Agenda* (doc [849]), by X.Litaudon
- *Introduction* (ppt [850]), by X.Litaudon
- *Validation ETS JET hybrid 77922: status and future work* (ppt [851]), by I.Voitsekhovitch
- *Predictive transport analysis of JET and AUG hybrid scenarios* (ppt [852]), by J.Citrin
- *Update on hybrid scenario* (ppt [853]), by J.Garcia

10.3.4.2 2.Tuesday

- *Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios* (pdf [854]), by M. de Baar
- *RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation* (pdf [855]), by F.Felici

10.3.4.3 3.Wednesday

- *Modeling development for control for ITER advanced scenarios* (pdf [856]), by T.Casper
- *Current ramp up in JET hybrid scenarios* (pdf [857]), by I.Voitsekhovitch

[839] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Parail_PredictivemodellingofH-LtransitioninJET.ppt
[840] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_AUG.ppt
[841] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[842] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[843] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_ITERhybridramp_upHogeweijISM11mar2011.ppt
[844] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[845] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[846] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[847] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[848] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[849] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[850] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[851] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[852] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[853] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[854] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[855] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[856] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/CasperISMtalkUtrechtJuly2011.pdf
[857] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf

10.3.4.4 5.Friday

- *Introduction* (pdf [858]), by X.Litaudon
- *ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS* (pdf [859]), by I.Voitsekhovitch
- *Short update on the JET/AUG hybrid modelling activity* (ppt [860]), by J.Citrin
- *Analysis of current diffusion on ASDEX-Upgrade* (ppt [861]), by J.Garcia
- *Optimisation of the current ramp up phase for hybrid ITER discharges* (ppt [862]), by G.M.D.Hogeweij
- *#77922: current ramp-down* (ppt [863]), by F.Koechl
- *Update on hybrid scenario* (ppt [864]), by J.Garcia
- *MHD stability analysis at ISM working session* (ppt [865]), by J.Lonnroth
- *JT-60SA: report from working session 04-08 July 2011* (ppt [866]), by X.Litaudon
- *Benchmarking of momentum equation and GLF23 model for momentum: present status* (doc [867]), by I.Voitsekhovitch

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last update: 2012-03-28 by coster

10.3.5 ISM Working Session November 7 - 11 2011 JET Culham, UK

10.3.5.1 1.Monday

- *Agenda* (pdf [868]), by X.Litaudon
- *Welcome* (pdf [869]), by I.Voitsekhovitch
- *Introduction* (ppt [870]), by X.Litaudon
- *Low activation phase on ITER* (ppt [871]), by T.Casper
- *Corisca simulations of ITER hybrid mode operation* (ppt [872]), by T.Casper

10.3.5.2 2.Tuesday

- *Task Force meeting on scenario modelling: introduction* (ppt [873]), by E.Joffrin
- *Introduction* (ppt [874]), by X.Litaudon
- *Wall proximity and shape validation in H-mode* (ppt [875]), by C.Challis
- *Characterization of L-mode domain* (ppt [876]), by D.Frigione

[858] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
[859] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[860] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
[861] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[862] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[863] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
[864] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_rampdown.ppt
[865] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Lonnroth_ISM_working_session_2011.ppt
[866] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[867] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
[868] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[869] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[870] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[871] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[872] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[873] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
[874] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[875] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[876] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt

- *H-mode baseline scenario at 2.5 MA* (ppt [877]), by B.Bucalossi
- *L-H power threshold studies: Be/W vs C* (ppt [878]), by G.Calabro
- *Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap'* (ppt [879]), by J.Mailloux
- *Ex-2.3.1 Hybrid scenario development with the ILW* (ppt [880]), by J.Hobirk
- *Ex 1.1.7/2.2.1/2.2.2 Modelling needs* (pdf [881]), by J.Coenen
- *Ex -2.2.3 Integration of seeding and ELM control techniques* (ppt [882]), by P.Monier-Garbet
- *Ex -1.3.2 Fuelling and Seeding studies: Modelling aims* (ppt [883]), by G.Maddison
- *Ex -2.2.5: Radiating type III ELMy H-mode* (ppt [884]), by A.Huber
- *Edge modelling resources - November 2011* (ppt [885]), by M.Groth

10.3.5.3 3.Wednesday

- *The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios* (pdf [886]), by P.Snyder

10.3.5.4 4.Thursday

- *Update on the collaboration project for the analysis of JT60U and JET shots* (pdf [887]), by J.Garcia
- *First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D* (pdf [888]), by D.Moreau

10.3.5.5 5.Friday

- *Introduction* (ppt [889]), by X.Litaudon
- *Bootstrap comparison with NCLASS CRONOS/ASTRA* (ppt [890]), by V.Basiuk
- *SANCO - ETS/impurity code benchmarking for Be* (ppt [891]), by I.Ivanova-Stanik
- *Modelling of JET current ramp down discharges with Bohm-gyroBohm model* (doc [892]), by J.Bizarro
- *Update on AUG/JET modelling* (ppt [893]), by J.Citrin
- *L-H and H-L transition* (ppt [894]), by P.Belo
- *LHCD during JET current ramp up* (pdf [895]), by E.Barbato
- *Particle transport in JET and ITER HS* (ppt [896]), by L.Garzotti

[877] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.1.5_Modelling.ppt
[878] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt
[879] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt
[880] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[881] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[882] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt
[883] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[884] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
[885] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[886] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[887] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/JAEA_update.pdf
[888] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/DMoreau_D3D093011.pdf
[889] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[890] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[891] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
[892] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[893] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
[894] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Belo_LH_and_HL_transition.ppt
[895] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[896] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt

- *Real time control* (pptx [897]), by F.Liu
- *Self-consistent transport modelling with GLF23 model for JET HS 77922* (ppt [898]), by I.Voitsekhovitch
- *JT-60SA scenario modelling* (ppt [899]), by X.Litaudon

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last update: 2012-05-16 by coster

10.3.6 ISM Working Session May 21 - 25 2012 Vienna, Austria

10.3.6.1 1.Monday

- *Local information* (ppt [900]), by F.Koechl
- *Agenda* (pdf [901]), by X.Litaudon
- *Introduction* (ppt [902]), by X.Litaudon
- *Modelling of JET Hybrid Scenarios* (pdf [903]), by I.Voitsekhovitch
- *Optimizing the current ramp up phase for the hybrid ITER scenario* (ppt [904]), by G.M.D.Hogeweij
- *Application of the parameterized EPED1 model to time-dependent transport simulation* (pdf [905]), by S.H.Kim

10.3.6.2 5.Friday

- *NCLASS benchmark* (ppt [906]), by V.Basiuk
- *Current diffusion in hybrid scenarios* (ppt [907]), by J.Garcia
- *Density simulation in JET HS* (ppt [908]), by L.Garzotti
- *Modelling of ELM mitigation at JET: study of density depletion at high fELM* (ppt [909]), by F.Koechl
- *ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction* (ppt [910]), by J.Citrin
- *Free boundary equilibrium transport simulations of ITER scenarios under control* (ppt [911]), by J.Urban
- *Modelling of ITER hybrid scenario: sensitivity analysis with METIS* (ppt [912]), by X.Litaudon
- *ARTAEMIS:Plasma response models and profile control in ITER* (ppt [913]), by F.Liu
- *Implementation of the JT-60SA NBI configuration in EU transport codes* (ppt [914]), by T.Bolzonella
- *Update on the collaboration project for the analysis of JT60U and JET shots* (ppt [915]), by J.Garcia
- *Predictive simulations of JT60-SA* (ppt [916]), by L.Garzotti

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last update: 2013-06-27 by dpc

[897] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Feng_nov2011.pptx
[898] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Voitsekhovitch_ISMWS_Nov2011.ppt
[899] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon-JT-60SA.ppt
[900] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Koechl_LOC.ppt
[901] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ISM_agenda_WS_May_2012.pdf
[902] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[903] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
[904] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ITER_ramp_up_Hogeweij.ppt
[905] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
[906] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt
[907] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_current_diffusion.ppt
[908] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
[909] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Koechl_density_depletion.ppt
[910] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Citrin_ISM_Vienna2012.ppt
[911] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/freebie_iter_may2012_ism.pdf
[912] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Litaudon_HybridMetis.ppt
[913] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[914] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Bolzonella_JT60SA_NBI.ppt
[915] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[916] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt

10.3.7 ISM Working Session November 19 - 23 2012 JET Culham, UK

10.3.7.1 1.Monday

- *Welcome and local information* (ppt [917]), by I.Voitsekhovitch
- *Agenda* (ppt [918]), by X.Litaudon
- *High priority modeling tasks from IOS-ITPA* (ppt [919]), by G.Sips
- *Pulses for analysis with the ILW* (ppt [920]), by E.Joffrin
- *JINTRAC capabilities for integrated core - edge modelling* (ppt [921]), by M.Romanelli
- *Coupled core-SOL simulations of L-H and H-L transitions in ITER* (ppt [922]), by V.Parail

10.3.7.2 2.Tuesday: Joint ISM and JET TF meeting on scenario modelling

- *Status of the scenario analysis and modelling work for C29 and C30* (ppt [923]), by E.Joffrin
- *Analysis of current diffusion with ILW* (pptx [924]), by J.Garcia
- *The q-profile formation in Hybrid pulses with ILW: modelling and experiment* (ppt [925]), by Yu.Baranov
- *ITER ramp-up and ramp-down* (pptx [926]), by D.Hogeweij
- *JETTO simulations of q profile during ramp up and ramp down* (pptx [927]), by E.Barbato

10.3.7.3 4.Thursday

- *JET and JT-60U current profile modelling with identity plasma experiments* (pptx [928]), by P.Siren
- *Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport* (ppt [929]), by I.Voitsekhovitch
- *Short update on particle transport modelling following EPS conference: ideas on how to proceed* (ppt [930]), by L.Garzotti

10.3.7.4 5.Friday

- *Raport JET ISM Code camp: impurity simulations for JET 81856* (ppt [931]), by I.Ivanova-Stanik
- *Verification on the code ETS Impurity and ADAS with code SANCO for Ni* (ppt [932]), by I.Ivanova-Stanik
- *ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data* (pdf [933]), by A.Figueiredo
- *JETTO Run to Benchmark ETS Neutrals Package* (ppt [934]), by F.Nave
- *ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data* (ppt [935]), by G.M.D.Hogeweij

[917] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[918] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[919] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
[920] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
[921] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[922] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[923] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[924] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[925] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[926] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx
[927] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
[928] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[929] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[930] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[931] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[932] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt
[933] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Figueiredo.pdf
[934] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Nave_ETS_Benchmarking.ppt
[935] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Hogeweij_ISM_23Nov2012_ITERlike_RURD_qprofile_Analysis.ppt

- *Modelling of flux consumption in ILW current ramp-up discharges* (ppt [936]), by F.Koechl
- *H-L transition with ITER like wall* (ppt [937]), by P.Belo
- *Modelling of current ramp down* (ppt [938]), by J.Bizarro
- *Preparation of B13-10 experiment - Hybrid with LHCD prelude* (pptx [939]), by E.Barbato
- *Status on QualiKiz and TGLF validation and implementation in CRONOS* (pdf [940]), by B.Baiocchi
- *Comparative transport analysis of JET and JT-60U discharges* (pptx [941]), by J.Garcia
- *IOS-TG Ramp-up simulation Task: C - Be-W* (ppt [942]), by G.Sips
- *Pulse list for C29 and C30* (ppt [943]), by E.Joffrin
- *ITER hybrid scenario modelling with EPED constraints* (pptx [944]), by J.Citrin
- *Status onRelaxation of the ITER hybrid-scenario q0 constraint by sawtooth control* (pptx [945]), by J.Citrin
- *Conclusions, information* (ppt [946]), by X.Litaudon

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last update: 2013-06-27 by dpc

10.3.8 ISM Working Session March 11 - 15 2013 EFDA-Garching, Germany

10.3.8.1 1.Monday

- *Agenda, news from the 1st week of code camp* (pdf [947]), by I.Voitsekhovitch
- *Analysis and modelling of JET and JT-60U discharges* (pptx [948]), by J.Garcia
- *COREDIV physicsl model* (pdf [949]), by R.Stankiewicz
- *Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport* (pdf [950]), by J.Bizarro
- *ASTRA-7 a state-of-the-art IPP transport code* (pdf [951]), by E.Fable

10.3.8.2 2.Tuesday

- *Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP* (ppt [952]), by I.Voitsekhovitch

[936] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
[937] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ILW_paula.ppt
[938] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_Meeting_Bizarro.ppt
[939] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Barbato_ISM_WG_22Nov12.pptx
[940] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/baiocchi.pdf
[941] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_presentationJET_jeronimo.pptx
[942] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Sips_IOS_modelling_CvsBeW.ppt
[943] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[944] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[945] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[946] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
[947] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Voitsekhovitch_Garcia_ISMWS1.pdf
[948] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/JET_JT60U_jeronimo_ISM.pptx
[949] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Corediv_model.pdf
[950] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Bizarro_Garching_Mar11_2013.pdf
[951] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
[952] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/2.Thursday/NBI_NUBEAM_FIN.ppt

10.3.8.3 3.Friday

- *Status of the NTM module on new Gateway 4.10a for ISM ACT1* (ppt [953]), by S.Nowak
- *European Transport Solver Status* (ppt [954]), by V.Basiuk
- *Code camp report* (pdf [955]), by A.Figueiredo
- *Modelling of tungtsen accumulation in pulses with ILW in JET* (ppt [956]), by Yu.Baranov
- *ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS* (ppt [957]), by I.Ivanova-Stanik
- *Linear Stability Chain in the new gateway* (ppt [958]), by F.Nabais
- *Role of Fast Ions on JET Hybrid Scenarios* (ppt [959]), by J.Garcia
- *ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation* (ppt [960]), by F.Koechl
- *Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity* (ppt [961]), by I.Ivanova-Stanik
- *Status of four field (Te, Ti, ni, Vtor) modelling for ITER* (ppt [962]), by I.Voitsekhovitch
- *Activity within ISM* (pptx [963]), by E.Barbato
- *Closing of working session* (pdf [964]), by I.Voitsekhovitch

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last update: 2015-08-07 by dpc

10.3.9 ISM Working Session June 3 - 7 2013 CEA-Cadarache, France

10.3.9.1 1.Monday

- *Agenda and working groups* (pdf [965]), by I.Voitsekhovitch
- *STUDYING SCENARIOS FOR WEST WITH METIS* (pptx [966]), by C.Bourdelle
- *Impact of W on current ramp-up phase in JET & ITER* (pdf [967]), by G.M.D.Hogeweij
- *Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code* (pdf [968]), by F.Felici
- *Numerical optimization of the actuator trajectories in ITER hybrid scenario* (pdf [969]), by J. van Dongen

[953] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/NTM_CC_Garching_March_2013.ppt
[954] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Basiuk_ISM_2013_status_ETS_C.ppt
[955] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[956] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[957] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ACT1_ivanova.ppt
[958] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Nabais.ppt
[959] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/fast_ion_jeronimo_ism.ppt
[960] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Koechl_ISM_Garching_2013.ppt
[961] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ISMWS1_2013_COREDIV_4ITER.ppt
[962] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_ISMWS_March2013.ppt
[963] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Barbato_ISM_15_3_13.pptx
[964] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_Garcia_ISMWS1_closing.pdf
[965] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Agenda_June3_2013.pdf
[966] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/METIS_for_WEST_ISMmeeting_june13.pptx
[967] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
[968] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/ISM_meeting_RAPTOR_talk.pdf
[969] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/PresentatieISM.pdf

10.3.9.2 4.Thursday "Joint ISM-IO meeting on integrated scenario modelling for ITER"

- *Agenda* (pdf [970]), by I.Voitsekhovitch
- *ITER Integrated Scenario Modelling needs* (pptx [971]), by A.Loarte
- *PARTICLE TRANSPORT WITH THEORY-BASED MODELS* (pptx [972]), by J.Garcia
- *Modelling pellet fuelling (but not only) for ITER* (pptx [973]), by L.Garzotti
- *Core-SOL Modelling of ELM mitigation at JET* (pdf [974]), by F.Koechl
- *Integrated core-SOL modelling including impurity: ITER H-mode plasma* (pdf [975]), by I.Voitsekhovitch
- *Current ramp up in ITER: effects of impurity density* (pdf [976]), by G.M.D.Hogeweij
- *RAPTOR capabilities for plasma simulation and control in ITER* (pdf [977]), by F.Felici
- *ITER Integrated Modelling Tools: Status and Outlook* (pptx [978]), by S.Pinches

10.3.9.3 5.Friday

- *Agenda* (pdf [979]), by I.Voitsekhovitch
- *Modelling of JET hybrid scenarios with European Transport Solver* (pdf [980]), by A.Figueiredo
- *ISM ACT1: progress in simulation of NTM effect in JET discharge* (pdf [981]), by S.Nowak
- *ACT1: Status of impurity modelling with ETS* (ppt [982]), by I.Ivanova-Stanik
- *Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23* (pptx [983]), by B. Baiocchi
- *Progress on simulations of density profiles in hybrid plasmas* (pptx [984]), by L. Garzotti
- *Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance* (pdf [985]), by I. Voitsekhovitch
- *ACT2: JET current ramp up/down modelling* (pdf [986]), by D. Hogeweij
- *RAPTOR-based real-time observer: first ITER demonstration* (pdf [987]), by F. Felici
- *Numerical optimization of the actuator trajectories in ITER hybrid scenario* (pdf [988]), by J. van Dongen

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last update: 2013-09-12 by dpc

[970] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Agenda_IO_ISM.pdf
[971] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ISM_ITER_Modelling_needs.pptx
[972] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_IO_jeronimo_ISM.pptx
[973] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_pellet_fuelling.pptx
[974] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Koechl_ELM_mitigation.pdf
[975] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Voitsekhovitch_June6_2013.pdf
[976] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Hogeweij_ISM_IO_meeting.pdf
[977] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_control_meeting.pdf
[978] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Pinches_ISM_June_2013.pptx
[979] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Agenda_ISM_ws_June7_2013.pdf
[980] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/A._Figueiredo_WS_Report.pdf
[981] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/NTM_Cadarache_June_2013.pdf
[982] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Irena_ACT1_report.pdf
[983] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/baiocchi_ism.pptx
[984] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Garzotti_June7_2013.pptx
[985] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Voitsekhovitch.pdf
[986] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Hogeweij_7june2013.pdf
[987] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/ISM_final_presentation_ffelici.pdf
[988] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/PresentatieISM.pdf

10.3.10 ISM Working Session December 2 - 6 2013 JET, UK

10.3.10.1 1.Monday

- *Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp* (ppt [989]), by I.Voitsekhovitch

10.3.10.2 2.Tuesday

- *Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23* (pdf [990]), by B.Baiocchi

10.3.10.3 4.Thursday

- *PROCESS DEMO1 simulations with JETTO+SANCO* (ppt [991]), by F.Koechl

10.3.10.4 5.Friday

- *Agenda* (ppt [992]), by I.Voitsekhovitch
- *JETTO Run to Benchmark ETS Neutrals Package* (pdf [993]), by F.Nave
- *Key impact of energetic ions on the establishment of advanced tokamak regimes* (pdf [994]), by J.Garcia
- *Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions* (docx [995]), by J.Garcia
- *ACT2: Summary of the task on ELM mitigation by kicks* (ppt [996]), by F.Koechl
- *ASTRA-COREDIV simulations for ITER hybrid scenario* (ppt [997]), by I.Ivanova-Stanik
- *Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport* (ppt [998]), by I. Voitsekhovitch

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last update: 2015-02-06 by dpc

10.3.11 Remote meetings

10.3.11.1 September 29, 2010

- *Introduction meeting 29 September* (pdf [999]), by X.Litaudon
- *Progress of Hybrid modeling for JET and extrapolation to D-T* (pdf [1000]), by J.Garcia
- *Integrated edge modelling plans for ISM 2010/2011* (pdf [1001]), by S.Wiesen

10.3.11.2 October 27, 2010

- *Introduction meeting 27 October* (pdf [1002]), by X.Litaudon
- *Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects)* (pdf [1003]), by X.Litaudon
- *Optimization of the EC Launchers* (pdf [1004]), by M.Henderson

[989] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/1.Monday/Welcome_Agenda_3rdISM_WS.ppt
[990] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/2.Tuesday/baiocchi_ISM_03_12_2013_.pdf
[991] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/4.Thursday/Koechl_DEMO_test_modelling_with_JETTO.ppt
[992] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Agenda_6Dec2013.ppt
[993] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/neutrals_JETTO_Transp_Dec2013.ppt
[994] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/75225_analysis_jeronimo.pdf
[995] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/H-mode_jeronimo_nuclear_fusion_2.docx
[996] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Koechl_ne_depletion_with_mitigated_ELMs.ppt
[997] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/CODE_camp_ISM_JET-report.ppt
[998] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[999] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Litaudon_introduction.pdf
[1000] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Garcia.pdf
[1001] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Wiesen.pdf
[1002] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_introduction.pdf
[1003] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_ITPA.pdf
[1004] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Henderson_ITER_scenarios_EC.pdf

10.3.11.3 November 10, 2010

- *Introduction meeting 10 November* (pdf [1005]), by X.Litaudon
- *Status of modelling of DIII-D current ramp up discharges and comparison with JET* (pdf [1006]), by I.Voitsekhovitch

10.3.11.4 November 24, 2010

- *Introduction meeting 24 November* (pdf [1007]), by X.Litaudon

10.3.11.5 January 19, 2011

- *Introduction meeting 19 January 2011* (pdf [1008]), by X.Litaudon
- *CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858* (pdf [1009]), by F.Koechl
- *Optimisation of operational phase for long-pulse scenarios* (pdf [1010]), by A.Polevoi

10.3.11.6 February 9, 2011

- *Introduction meeting 9 February 2011* (pdf [1011]), by X.Litaudon
- *Report from ITM/IMP3 Code Camp: ETS V&V* (pdf [1012]), by I.Voitsekhovitch
- *Proposals for ETS validation on JET Hybrid discharges* (pdf [1013]), by I.Voitsekhovitch

10.3.11.7 February 16, 2011

- *Introduction meeting 16 February 2011* (pdf [1014]), by X.Litaudon
- *Benchmark the ETS/impurity code against SANCO* (pdf [1015]), by P.Belo
- *EMC3-EIRENE 3D fluid SOL code package* (pdf [1016]), by D.Harting
- *Proposals for ETS validation on JET Hybrid discharges* (pdf [1017]), by J.Garcia

10.3.11.8 March 2, 2011

- *Preparation of the ISM working session 7 - 11 March 2011, Cadarache* (ppt [1018]), by X.Litaudon

10.3.11.9 April 6, 2011

- *Introduction meeting 6 April 2011* (ppt [1019]), by X.Litaudon
- *Density modelling for hybrid scenario at JET & ITER, preliminary results* (pdf [1020]), by L.Garzotti
- *Validation exercise of the Kepler Workflow* (pdf [1021]), by V.Basiuk
- *Summary report on ISM WS & ETS CC: ETS benchmarking* (pdf [1022]), by I.Voitsekhovitch

[1005] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_10/Litaudon_introduction.pdf
[1006] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_10/Voitsekhovitch_DIIID.pdf
[1007] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_24/Litaudon_introduction.pdf
[1008] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Litaudon_introduction.pdf
[1009] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Koechl_JET_77922_76858_CRONOS_JETTO_comp.pdf
[1010] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Polevoi-Tasks-Long-Pulse.pdf
[1011] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Litaudon_introduction.pdf
[1012] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_report.pdf
[1013] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_ISM-Validation.pdf
[1014] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Litaudon_introduction.pdf
[1015] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Belo_ETSimpurity_pop.pdf
[1016] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Harting_16.02.2011_v4.pdf
[1017] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Garcia_hybrid.pdf
[1018] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_03_02/ISM_WS_agenda-v4.ppt
[1019] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Litaudon_introduction.ppt
[1020] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Garzotti.pdf
[1021] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Basiuk.pdf
[1022] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Voitsekhovitch-report_ACT1_ISM_VV_impurity.pdf

10.3.11.10 April 27, 2011

- *Introduction meeting 27 April 2011* (pdf [1023]), by X.Litaudon
- *IOS/ITPA activities* (ppt [1024]), by X.Litaudon
- *Optimizing ITER Current Ramp-up for hybrid scenario* (pdf [1025]), by D.Hogeweij
- *Predictive transport analysis of JET and AUG hybrid scenarios* (ppt [1026]), by J.Citrin

10.3.11.11 May 11, 2011

- *Introduction meeting 11 May 2011* (pdf [1027]), by X.Litaudon
- *ETS V&V activity during coming Code Camp 23-27 May Helsinki* (pdf [1028]), by I.Voitsekhovitch
- *Analysis of the hybrid shot 77280* (pdf [1029]), by J.Garcia

10.3.11.12 June 8, 2011

- *Introduction meeting 8 June 2011* (pdf [1030]), by X.Litaudon
- *Summary of Chapter 2: Theoretical models and simulation codes* (pdf [1031]), by G.Giruzzi
- *Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model* (pdf [1032]), by E.Fable
- *Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO* (pdf [1033]), by I.Voitsekhovitch

10.3.11.13 June 22, 2011

- *Introduction meeting 22 June 2011* (pdf [1034]), by X.Litaudon
- *Density modelling for hybrid scenario at JET and ITER, preliminary results* (pdf [1035]), by L.Garzotti
- *ISM report: comparison between Kadomtsev and 'continuous' sawtooth reconnection model in JINTRAC* (pdf [1036]), by V.Parail
- *Simulations of the H to L transition in JET plasmas (EPS 2011)* (pdf [1037]), by P.Belo
- *Predictive transport analysis of JET and AUG hybrid scenarios (EPS 2011)* (pdf [1038]), by J.Citrin
- *Optimization of current ramp up phase for hybrid ITER discharges (EPS 2011)* (pdf [1039]), by G.M.D.Hogeweij

[1023] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Litaudon_introduction_v2.pdf
[1024] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/IOS_modelling.ppt
[1025] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf
[1026] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Citrin_AUGandJETmodellingupdate_2742011.ppt
[1027] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Litaudon_introduction.pdf
[1028] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/ACT1_ISM_Voitsekhovitch.pdf
[1029] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Garcia_77280v2.pdf
[1030] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Litaudon_introduction.pdf
[1031] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Giruzzi_ISM_Chapter_2.pdf
[1032] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Fable_TGLF_JET_ISM_8jun2011.pdf
[1033] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Voitsekhovitch_GLF23benchmark_rotation.pdf
[1034] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Litaudon_introduction.pdf
[1035] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Garzotti_22_06_2011.pdf
[1036] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Parail_report.pdf
[1037] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Belo-EPS-2011.pdf
[1038] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Citrin-EPS2011_5slidesummary.pdf
[1039] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Hogeweij_ISM_22jun2011.pdf

10.3.11.14 September 7, 2011

- *Introduction meeting 7 September 2011* (pdf [1040]), by X.Litaudon
- *SOUL: a 1D SOL module for CRONOS* (pdf [1041]), by R.Goswami
- *Chapter 10: theoretical modeles and simulation codes* (pdf [1042]), by G.Giruzzi
- *Plasma scenarios for JT60SA* (pdf [1043]), by E.Joffrin

10.3.11.15 September 28, 2011

- *Introduction meeting 28 September 2011* (pdf [1044]), by X.Litaudon
- *Report from ITM General Meeting and discussion on 2012 activities* (pdf [1045]), by I.Voitsekhovitch

10.3.11.16 October 12, 2011

- *Introduction meeting 12 October 2011* (pdf [1046]), by X.Litaudon
- *Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting)* (pdf [1047]), by V.Parail
- *Update on current ramp up modelling (T&C ITPA meeting)* (pdf [1048]), by I.Voitsekhovitch

10.3.11.17 October 26, 2011

- *General information and preparation to the ISM working session November 7-11 2011* (ppt [1049]), by I.Voitsekhovitch

10.3.11.18 November 23, 2011

- *Introduction meeting 23 November 2011* (ppt [1050]), by X.Litaudon
- *Optimizing the current ramp-up phase for the hybrid ITER scenario* (pdf [1051]), by D.Hogeweij
- *Integrated ITER scenario modelling and density evolution prospects* (pdf [1052]), by F.Koechl
- *A theory-based criterion for Internal Transport Barrier formation* (pdf [1053]), by F.Militello

10.3.11.19 January 25, 2012

- *Introduction meeting 25 January 2012* (ppt [1054]), by X.Litaudon
- *DEMO modelling using PROCESS* (ppt [1055]), by R.Kemp
- *Pellet DEMO* (ppt [1056]), by L.Garzotti

[1040] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Litaudon_introduction.pdf
[1041] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Goswami_july_25_2011.pdf
[1042] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Giruzzi_ISM_Chapter_10.pdf
[1043] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Joffrin-07-09-2011.pdf
[1044] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Litaudon_introduction.pdf
[1045] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Voitsekhovitch_GMinfo_plans.pdf
[1046] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Litaudon_introduction.pdf
[1047] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Parail.pdf
[1048] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[1049] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[1050] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
[1051] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
[1052] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Koechl.pdf
[1053] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Militello.pdf
[1054] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
[1055] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/rk_process_demo_ISM_jan_2012.ppt
[1056] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Demo_fuel_cycle_meeting_29_11_2011.ppt

10.3.11.20 February 8, 2012

- *Introduction meeting 8 February 2012* (pdf [1057]), by X.Litaudon
- *ACT1 restart* (pdf [1058]), by I.Voitsekhovitch

10.3.11.21 February 22, 2012

- *Introduction meeting 22 February 2012* (pdf [1059]), by X.Litaudon
- *Modelling of kick-triggered ELMs at JET - current status* (pdf [1060]), by F.Koechl
- *Modelling of JET hybrid scenarios with GLF23 model* (pdf [1061]), by I.Voitsekhovitch

10.3.11.22 April 25, 2012

- *Introduction meeting 25 April 2012* (pdf [1062]), by X.Litaudon
- *IOS-ITPA (16-19 April 2012) summary report: modelling* (pdf [1063]), by I.Voitsekhovitch
- *Update on the collaboration project for the analysis of JT60U and JET shots* (pdf [1064]), by J.Garcia

10.3.11.23 June 13, 2012

- *Introduction meeting 13 June 2012* (ppt [1065]), by X.Litaudon
- *Integrated core-edge modelling for JET Hybrid scenario* (ppt [1066]), by P.Belo
- *Simulations of ASDEX-Upgrade HS with Bohm-gyroBohm transport model* (ppt [1067]), by I.Voitsekhovitch
- *Linear gyro-kinetic analysis with GYRO code for shot 77922* (pdf [1068]), by S.Moradi

10.3.11.24 June 20, 2012

- *Introduction meeting 20 June 2012* (pdf [1069]), by X.Litaudon
- *Integrated modelling for tokamak plasma: physics and scenario optimisation* (pdf [1070]), by I.Voitsekhovitch
- *Modelling of ELM mitigation at JET* (pdf [1071]), by F.Koechl
- *Density simulation in JET HS* (pdf [1072]), by L.Garzotti
- *Free-boundary equilibrium transport simulations of ITER scenarios under control* (pdf [1073]), by J.Urban
- *A new free-boundary equilibrium evolution code, FREEBIE* (pdf [1074]), by S.H.Kim
- *Real time control hybrid ITER scenario* (pdf [1075]), by F.Liu

[1057] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Litaudon_introduction.pdf
[1058] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf
[1059] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Litaudon_introduction.pdf
[1060] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Koechl.pdf
[1061] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Voitsekhovitch_Feb22_2012.pdf
[1062] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Litaudon_introduction.pdf
[1063] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Voitsekhovitch_IOS_summary.pdf
[1064] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Garcia_JET_JT-60U.pdf
[1065] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Litaudon_introduction.ppt
[1066] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[1067] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[1068] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[1069] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf
[1070] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[1071] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[1072] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
[1073] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/JURBAN_EPS_overview_ISM.pdf
[1074] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf
[1075] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf

- *Comparative transport analysis of JET and JT-60U discharges* (pdf [1076]), by J.Garcia
- *Integrated modelling of JT-60SA scenarios with the METIS code* (pdf [1077]), by G.Giruzzi
- *Transport and Confinement in JT-60SA* (pdf [1078]), by E.Barbato

10.3.11.25 September 26, 2012

- *Introduction and ISM IAEA Modelling of Hybrid Scenario: from present-day experiments toward ITER* (pdf [1079]), by X.Litaudon
- *The EU ITM-TF effort - Achievements and First Physics Results* (pdf [1080]), by G.Falchetto
- *The European Transport Solver (ETS): an integrated approach for transport simulations in the plasma core* (pdf [1081]), by D.Kalupin

10.3.11.26 October 24, 2012

- *Introduction and IOS-ITPA 2012 summary* (pdf [1082]), by X.Litaudon
- *Status of scenario studies for WEST* (pdf [1083]), by F.Imbeaux
- *Progress in the simulation of JET hybrid pulse 77922 with the European Transport Solver* (pdf [1084]), by A.Figueiredo
- *LHCD simulation by ASTRA/FRTC of JET discharges* (pdf [1085]), by E.Barbato
- *Short update on particle transport modelling following EPS conference* (pdf [1086]), by L.Garzotti

10.3.11.27 December 19, 2012

10.3.11.28 February 6, 2013

- *Organisation of modelling activities in 2013* (pdf [1087]), by I.Voitsekhovitch
- *Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement* (pdf [1088]), by Yu.Baranov

10.3.11.29 February 20, 2013

- *ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013* (pdf [1089]), by I.Voitsekhovitch
- *Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23* (pdf [1090]), by B.Baiocchi
- *Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity* (pdf [1091]), by I.Ivanova-Stanik

[1076] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garcia_EPS_ISM_meeting_jeronimo.pdf
[1077] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Giruzzi_EPS_4ISM.pdf
[1078] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Barbato.pdf
[1079] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf
[1080] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[1081] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Kalupin_Summary_IAEA.pdf
[1082] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Litaudon_introduction_summaryITPA.pdf
[1083] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Imbeaux_WEST_Scenarios_ISM_20121024.pdf
[1084] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Figueiredo_24Oct2012.pdf
[1085] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[1086] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Garzotti_24Oct2012.pdf
[1087] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
[1088] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Baranov_Hybrid_database.pdf
[1089] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf
[1090] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf
[1091] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf

10.3.11.30 April 10, 2013

- *ISM news and coming events* (pdf [1092]), by I.Voitsekhovitch
- *Role of fast ions in hybrid scenarios* (pdf [1093]), by J.Garcia
- *Role of impurities in ITER-like ramp up in JET* (pdf [1094]), by G.M.D.Hogeweij
- *Modelling of particle transport and density effects in present experiments and projection to ITER* (pdf [1095]), by I.Voitsekhovitch

10.3.11.31 May 23, 2013

- *ISM news and coming events, preparation to 2nd ISM working session 2013* (pdf [1096]), by I.Voitsekhovitch
- *DEMO preliminary scenario analysis: introduction and METIS simulations* (ppt [1097]), by G.Giruzzi
- *Summary of WP12-SYS02 activity on DEMO1 scenario profile consistency* (pdf [1098]), by E.Fable
- *Simulations with COREDIV code of DEMO discharges* (ppt [1099]), by R.Zagorski
- *NBI simulations for DEMO1* (ppt [1100]), by M.Baruzzo
- *DEMO1 profile consistency and sensitivity studies by METIS* (pdf [1101]), by T.Bolzonella
- *JINTRAC simulations for DEMO* (ppt [1102]), by L.Garzotti

10.3.11.32 June 26, 2013

- *ISM news and coming events* (pdf [1103]), by I.Voitsekhovitch
- *Modelling of JET hybrid scenarios with the European Transport Solver* (pdf [1104]), by A.Figueiredo
- *Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23* (pdf [1105]), by B.Baiocchi
- *Integrated core+edge+MHD modelling of ELM mitigation at JET* (ppt [1106]), by F.Koechl
- *Current density modelling in JET and JT-60U identity plasma experiments* (pdf [1107]), by P.Siren

10.3.11.33 September 4, 2013

- *ISM news and coming events* (pdf [1108]), by I.Voitsekhovitch
- *Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density* (pdf [1109]), by I.Ivanova-Stanik

[1092] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Voitsekhovitch_Garcia_Apr10_2013.pdf
[1093] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
[1094] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[1095] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[1096] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Voitsekhovitch_Garcia_May23_2013.pdf
[1097] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[1098] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/WP1213_summary_EF.pdf
[1099] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt
[1100] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt
[1101] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[1102] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[1103] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
[1104] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Figueiredo.pdf
[1105] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[1106] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Koechl_ISM_modelling_of_ELM_mitigation_at_JET.ppt
[1107] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
[1108] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/Voitsekhovitch_Garcia_Sept4_2013.pdf
[1109] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/ITER_COREDIV_ISM_meeting_04_09_2013.pdf

10.3.11.34 September 25, 2013

- *ISM news and coming events* (pdf [1110]), by I.Voitsekhovitch
- *Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control* (ppt [1111]), by G.M.D.Hogeweij
- *PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS* (ppt [1112]), by J.Garcia
- *Prediction of particle transport and density profiles in ITER (modelling proposals)* (ppt [1113]), by I.Voitsekhovitch

10.3.11.35 November 6, 2013

- *ISM news and coming events* (ppt [1114]), by I.Voitsekhovitch
- *ITPA summary* (ppt [1115]), by J.Garcia
- *EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals* (ppt [1116]), by I.Voitsekhovitch

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10.4 Publications

10.4.1 Journal papers

10.4.1.1 2011

- *Current ramps in tokamaks: from present experiments to ITER scenarios (Nucl. Fusion)* (pdf [1117]), by F.Imbeaux

10.4.1.2 2012

- *Simulations of density profiles, pellet fuelling and density control in ITER (Nucl. Fusion)* (pdf [1118]), by L.Garzotti
- *Predictive analysis of q-profile influence on transport in JET and ASDEX Upgrade hybrid scenarios (PPCF)* (pdf [1119]), by J.Citrin

10.4.1.3 2013

- *Optimizing the current ramp-up phase for the hybrid ITER scenario (Nuclear Fusion)*
- *Modelling of hybrid scenario: from present-day experiments towards ITER (Nuclear Fusion)*
- *Determination of the off-axis current for the sustainment of the q-profile on JET hybrid scenarios(PPCF)*

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last update: 2013-12-18 by voits

[1110] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Voitsekhovitch_Garcia_Sept25_2013.pdf
[1111] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt
[1112] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[1113] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[1114] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[1115] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[1116] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
[1117] https://www.efda-itm.eu/ITM/imports/ism/public/Publications/Imbeaux_NF_2011.pdf
[1118] https://www.efda-itm.eu/ITM/imports/ism/public/Publications/Garzotti_NF_2012.pdf
[1119] https://www.efda-itm.eu/ITM/imports/ism/public/Publications/citrinPPCF2012_AUGJET.pdf

10.4.2 Conference proceedings

10.4.2.1 2011

- *ITER Scenario Modelling (ISM) (EPS)* (ppt [1120]), by ISM group
- *Simulations of the H to L transition in JET plasmas (EPS)* (pdf [1121]), by P.Belo
- *Predictive transport analysis of JET and AUG hybrid scenarios (EPS)* (pdf [1122]), by J.Citrin
- *Determination of the requirements for the sustainment of hybrid scenarios on JET (EPS)* (pdf [1123]), by J.Garcia
- *Optimization of the current ramp-up phase for hybrid ITER discharges (EPS)* (pdf [1124]), by G.M.D.Hogeweij
- *Optimizing the current ramp-up phase for the hybrid ITER scenario (International Toki Conference)* (pdf [1125]), by G.M.D.Hogeweij

10.4.2.2 2012

- *Simulations of Density Profiles in JET Hybrid Discharges (EPS)* (pdf [1126]), by L.Garzotti
- *Integrated modelling for tokamak plasma: physics and scenario optimisation (EPS)* (pdf [1127]), by I.Voitsekhovitch
- *Modelling of Hybrid Scenario: from present-day experiments toward ITER (IAEA)* (pdf [1128]), by X.Litaudon

10.4.2.3 2013

- *Turbulent transport analysis of JET H-mode and hybrid plasmas using QuaLiKiz, TGLF and GLF23 (EPS)* (pdf [1129]), by B.Baiocchi
- *Modelling of JET hybrid scenarios with the European Transport Solver (EPS)* (pdf [1130]), by A.Figueiredo
- *Integrated core+edge+SOL+MHD modelling of ELM mitigation at JET (EPS)* (pdf [1131]), by F.Koechl
- *Current profile modelling in JET and JT-60U identity experiments (EPS)* (pdf [1132]), by P.Siren

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10.4.3 External meetings

10.4.3.1 2011

- *ITER SCENARIO MODELLING activities within ITM-TF (IOS-ITPA)* (pdf [1133]), by X.Litaudon
- *The sustainment of hybrid scenarios on JET and its possible extrapolation to ITER (IOS-ITPA)* (pdf [1134]), by J.Garcia
- *ISM modelling activity on current ramp up (TC-ITPA)* (pdf [1135]), by I.Voitsekhovitch

[1120] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/A0_ISM_poster_EPS2011_v4.ppt
[1121] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Belo_eps2011_paper.pdf
[1122] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/J_Citrin_EPS2011_paper.pdf
[1123] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Garcia_eps2011.pdf
[1124] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Hogeweij_eps2011_paper.pdf
[1125] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/hogeweij_pfr.pdf
[1126] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Garzotti_eps2012.pdf
[1127] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Voitsekhovitch_P4_066.pdf
[1128] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Paper-ISM_IAEA_2012_Conf_v1.pdf
[1129] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Baiocchi_eps.pdf
[1130] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Figueiredo_EPS2013.pdf
[1131] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Integrated_modelling_ELM_mitigation.pdf
[1132] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Integrated_modelling_ELM_mitigation.pdf
[1133] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Litaudon_ITPA_IOS.pdf
[1134] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Garcia_ITPA_IOS.pdf
[1135] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Voitsekhovitch_ISM_TC_ITPA_April2011.pdf

10.4.3.2 2012

- *MODELLING of JET HYBRID SCENARIOS (IOS-ITPA)* (pdf [1136]), by I.Voitsekhovitch
- *Modelling of ELM mitigation at JET (25th Conference on Plasma Physics and Technology , Prague, Czech Republic)* (ppt [1137]), by F.Koechl

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last update: 2013-06-27 by dpc

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last update: 2013-06-27 by dpc

10.5 Private ISM pages

To access the private ISM pages [1138], an ISM password is needed.

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last update: 2013-12-18 by voits

11 Infrastructure

The part of the ITM documentation addresses infrastructure related issues like the ITM Gateway (29) , ITM database access, the Universal Access Layer (UAL) (29) , and useful tools for handling CPOs (29) .

11.1 Mailing Lists

A number of ITM discussion mailing lists have been created:

- **itm-c_and_cpp** : To share C and C++ related topics
- **itm-data-struct** : Discussion about changes to ITM data structures
- **itm-fortran** : Use of FORTRAN within the ITM
- **itm-hpio** : Discussion about High Performance I/O
- **itm-matlab** : Use of MATLAB within the ITM
- **itm-plot** : Discussion of visualization in the ITM
- **itm-python** : Use of Python within the ITM
- **itm-tools** : Discussion of ITM tool needs
- **itm-workflow** : Discussion of issues related to workflows

These lists can be joined by clicking here [1139] and then clicking on "Subscribe/Unsubscribe/Preferences".

The ETS also has two mailing lists:

- **ets-announce** : ETS announcements list
- **ets-discuss** : ETS discussion list

These lists can be joined by clicking here [1140] and then clicking on "Subscribe/Unsubscribe/Preferences".

AMNS also has a mailing list:

- **amns-discuss** : AMNS Discussion List

This list can be joined by clicking here [1141] and then clicking on "Subscribe/Unsubscribe/Preferences".

[1136] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2012/Voitsekhovitch_IOS_ITPA_04_2012.pdf
[1137] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2012/Koechl_modelling_elm_mitigation_at_jet.ppt
[1138] https://www.efda-itm.eu/ISM/html/index.html
[1139] https://gforge6.eufus.eu/project/itm/mailman/
[1140] https://gforge6.eufus.eu/project/ets/mailman/
[1141] https://gforge6.eufus.eu/project/amns/mailman/

11.2 ITM Gateway

under construction

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last update: 2010-07-28 by konz

11.3 ITM Database

The tools below allow you to directly access the ITM data base without using the Universal Access Layer (UAL) (29) . This may prove useful when the UAL is not available.

11.3.1 printcpo

This Fortran90 program writes on the screen the non empty fields of the CPOs stored in the specified database entry.
It can be run directly from a unix shell:

```
unix prompt> printcpo <shot> <run> <treename>
```

where the parameters are the shot number, the run number, and the name of the MDSPLUS tree. If no parameters are provided, a default value of 1 is used for the shot number and the run number, while the treename default to euitm.

Example:

```
unix prompt> printcpo 3 2
```

In the current version, the program writes out the dimension of a field array, while it writes out the values of a scalar field to standard out.

The routine can also be used in a Fortran90 program.
Add the following use statement to your code:

```
  use euitm_printcpo
```

Call the routine like this:

```
  call printcpo(<cpo variable>)
```

Example:

```
    ...
    type(type_equilibrium),pointer :: equilibrium(:) => null()
    ...
    call euitm_get(idx, 'equilibrium', equilibrium)
    ...
    call printcpo(equilibrium)
```

The program files are hosted by the Gforge (29) project **itmshared** .
Check them out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/perlprintcpo target_dir
```

To build the program and the routines, just use the make facility:

```
unix prompt> make
```

The make uses the pgi compiler.

The files included are:

- `Makefile` - the Makefile
- `creaprint.pl` - a perl script which reads the definition of all data structures from the file euitm_schemas.f90 and writes the file euitm_printcpo.f90, which contains a module with all the routine needed to print a cpo.
- `creamainprint.pl` - writes the main program (printcpo.f90) based on the definitions in euitm_schemas.f90.
- `printcpoargs.f90` - routine that returns the arguments passed to the main program.

---

last update: 2019-01-31 by g2dpc

11.4 Universal Access Layer (UAL)

11.4.1 Introduction

The UAL (Universal Access Layer) (29) is a multi-language library that allows exchanging Consistent Physical Objects (CPOs) between various modules, and to write to an ITM database. The documentation here is provided for rather experienced users who want to practice the UAL in their test programs. Regular KEPLER (29) users do not need to know anything about the UAL. KEPLER manages transparently the UAL calls, which are embedded in the physics code wrappers. **No UAL calls should be made inside physics modules.**

Prior using the UAL, the environment must be configured. It is recommended to use the **ITMv1** script for this, which simultanesouly sets i) the database environment (to the private database of the user) ii) the UAL libraries environment iii) the Kepler environment.

```
        source $ITMSCRIPTDIR/ITMv1 KEPLERFOLDER
        MACHINENAME DATAVERSION
```

e.g.:

```
        source $ITMSCRIPTDIR/ITMv1 kepler tore_supra 4.08a
```

This scripts does not prevent you from using databases from other users or the public one, you must then use the UAL function **euitm_open_env** in your program to do so.

The ITMv1 script uses the two following scripts: to set the database environment variables (mandatory prior UAL usage), use:

```
source $ITMSCRIPTDIR/set_itm_data_env USERNAME
 MACHINENAME DATAVERSION
```

e.g.:

```
source $ITMSCRIPTDIR/set_itm_data_env myname jet 4.08a
```

Then to set the path to the right UAL libraries, use:

```
source $ITMSCRIPTDIR/set_itm_env DATAVERSION
```

e.g.:

```
source $ITMSCRIPTDIR/set_itm_env 4.08a
```

UAL libraries are installed in `/afs/efda-itm.eu/isip/project/switm/ual` .

The source code is stored in a subversion repository in /afs/edfa-itm.eu/isip/project/portal/gforge/storage/svnroot/ual. To check out a subversion working copy of the repository, storing it in subdirectory *ual* , do

```
svn co https://gforge6.eufus.eu/svn/ual
```

11.4.2 UAL User Guide

Click on the following link for the UAL User Guide [1142]

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last update: 2019-01-31 by g2dpc

11.5 Handling CPOs

The tools below allow you to perform useful operations on the ITM datastructures including entire CPOs (29) in your Fortran90 workflows. They are not meant as a replacement of the Universal Access Layer (UAL) (29) but rather as a complement especially in situations where the UAL is not available or not practical, e.g. in U.S. - EFDA collaborations.

11.5.1 Module deallocate_stuctures

This Fortran90 module allows you to deallocate in a very simple way any ITM data structure which is defined in euitm_schemas.f90.

Add the following use statement to your code:

```
  use deallocate_structures
```

The Fortran syntax for deallocating a cpo is then:

```
  call deallocate_cpo(cpo)
```

where cpo is a single time slice or a pointer array of a CPO (or other ITM data structure).

With

```
   call set_deallocate_verbosity(verbosity)
```

you can set a verbosity level for the deallocate routines. `verbosity = 0` produces no output, whereas `verbosity > 0` produces verbose output.

The module `deallocate_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libdeallocate_pgi.a` and `libdeallocate_g95.a` have been prebuilt on the ITM Gateway (29) .

[1142] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_User_Guide.pdf

11.5.2 Module copy_structures

This Fortran90 module allows you to copy in a very simple way any ITM data structure which is defined in euitm_schemas.f90.

Add the following use statement to your code:

```
use copy_structures
```

The Fortran syntax for copying a cpo is then:

```
call copy_cpo(cpo_source, cpo_target)
```

where cpo_source and cpo_target are single time slices or arrays of a CPO (or other ITM data structure) of the same derived type, real scalars, or real arrays (1D - 7D).
The allocation of the elements of the target structure is done automatically.

With

```
call set_copy_verbosity(verbosity)
```

you can set a verbosity level for the copy routines. `verbosity = 0` produces no output, whereas `verbosity > 0` produces verbose output.

The module `copy_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libcopy_pgi.a` and `libcopy_g95.a` have been prebuilt on the ITM Gateway (29) .

11.5.3 Module euitm_copy

This Fortran90 module allows you to copy in a very simple way any ITM data structure which is defined in euitm_schemas.f90 including entire trim traces.

Add the following use statement to your code:

```
use euitm_copy
```

The Fortran syntax for copying a cpo via assignment is then:

```
cpo_target = cpo_source
```

where cpo_source and cpo_target are single time slices or arrays of a CPO (or other ITM data structure) of the same derived type.
The allocation of the elements of the target structure is done automatically.

The program files are hosted by the Gforge project **itmshared** .
Check them out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/perlcopy target_dir
```

To build the Fortran90 module, run

```
creacopy.pl
```

It takes euitm_schemas.f90 from the directory `$UAL/fortraninterface/` .
Or supply the file from a given directory

```
creacopy.pl $MYDIR/euitm_schemas.f90
```

11.5.4 Module is_set_structures

This Fortran90 module can be used to check whether ITM data structures including entire CPOs have been set. The subroutines in `is_set_structures.f90` write out the name of each element in the data structure together with `'T'` if it has been set or `'F'` if not.

Add the following use statement to your code:

```
use is_set_structures
```

The Fortran syntax for checking a cpo is then:

```
call is_set_cpo(cpo, "name of cpo")
```

where cpo is a single time slice or an array of a CPO (or other ITM data structure) and ”name of cpo” is a string containing the name of the CPO.

The module `is_set_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libis_set_pgi.a` and `libis_set_g95.a` have been prebuilt on the ITM Gateway (29) .

11.5.5 Module size_of_structures

The subroutines in `size_of_structures.f90` write out the name of each element in the data structure with its size, the size of each entire substructure, and the size of the entire CPO. The size can be given in bytes or in a more human friendly format depending on the value of the logical parameter `human_readable` . The indentation is done in steps of 2 blanks with an initial indentation of 1.
The maximum depth to which the results are displayed is specified by a call to `set_size_of_maxlevel` . Output of empty fields can be suppressed by setting the verbosity to zero with a call to `set_size_of_verbosity` . In all cases, sums are carried out over all levels.

Add the following use statement to your code:

```
use size_of_structures
```

The Fortran syntax for calculating the size of a cpo is then:

```
call size_of_cpo(cpo, total_size, human_readable, "name of cpo")
```

where cpo is a single time slice or an array of a CPO (or other ITM data structure) and ”name of cpo” is a string containing the name of the CPO. total_size is an integer and should be set to zero before the call. human_readable is a flag (true => human friendly format).

Set the verbosity with:

```
call set_size_of_verbosity(verbosity)
```

verbosity = 0 => no output of empty fields
verbosity > 0 => full output

Set the maximum depth with:

```
call set_size_of_maxlevel(level)
```

with level being an integer.

The module `size_of_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libsize_of_pgi.a` and `libsize_of_g95.a` have been prebuilt on the ITM Gateway (29) .

11.5.6 Module write_structures

This Fortran90 module can be used to write ITM data structures including entire CPOs to disk.
The corresponding file is opened with

```
call open_write_file(unit_no, file_name)
```

where unit_no is the file handle (integer) and file_name a string with the file name (possibly including the path).

The file is closed with

```
call close_write_file
```

Add the following use statement to your code:

```
use write_structures
```

The Fortran syntax for writing a cpo to disk is then:

```
call write_cpo(cpo, "name of cpo")
```

where cpo is a single time slice or an array of a CPO (or other ITM data structure) and "name of cpo" is a string containing the name of the CPO.

With

```
call set_write_verbosity(verbosity)
```

you can set a verbosity level for the write routines. verbosity = 0 produces no output, whereas verbosity > 0 produces verbose output.

The module `write_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libwrite_pgi.a` and `libwrite_g95.a` have been prebuilt on the ITM Gateway (29) .

11.5.7 Module read_structures

This Fortran90 module can be used to read ITM data structures including entire CPOs from disk.
The corresponding file is opened with

```
call open_read_file(unit_no, file_name)
```

where unit_no is the file handle (integer) and file_name a string with the file name (possibly including the path).

The file is closed with

```
call close_read_file
```

Add the following use statement to your code:

```
use read_structures
```

The Fortran syntax for reading a cpo from disk is then:

```
call read_cpo(cpo, "name of cpo")
```

where cpo is a single time slice or an array of a CPO (or other ITM data structure) and ”name of cpo” is a string containing the name of the CPO. The module automatically deallocates any fields already allocated in cpo and allocates all required fields automatically. It is absolutely essential that ”name of cpo” is identical with the one chosen when the cpo was written.

With

```
call set_read_verbosity(verbosity)
```

you can set a verbosity level for the read routines. verbosity = 0 produces no output, whereas verbosity > 0 produces verbose output.

The module `read_structures.f90` is hosted by the Gforge (29) project **itmshared** .
Check it out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libread_pgi.a` and `libread_g95.a` have been prebuilt on the ITM Gateway (29) .

11.5.8 Module diff_structures

This Fortran90 module can be used to compare two CPOs or other ITM data structures. It was developed to facilitate benchmarks and automated test suites for the code development. It was kept flexible through the use of function arguments in the argument list of the subroutines of diff_structures. This allows the user to specify his own function set for the analysis and evalutation of the differences between the two CPOs. A call to diff_cpo simply writes out the result of this user defined function.

Add the following use statements to your code:

```
use diff_structures
use error_analysis
```

The Fortran syntax for calculating the differences between two cpos is then:

```
call diff_cpo(reference_cpo, test_cpo, name_root, func)
```

where reference_cpo is the reference CPO or other ITM data structure and test_cpo is the test CPO or other ITM data structure.
name_root is a string which defines the root of the field names to be displayed, e.g. 'equilibrium'.
func is a function argument to the subroutine diff_cpo. It can be any user defined function with the following constraints:

- It must be defined inside the module error_analysis (an example version with various error analysis functions is provided in `error_analysis.f90`).
- It follows the structure (dummy arguments, interface, overloading) as demonstrated in error_analysis.f90. The function always has a header function with a list of optional dummy arguments. Depending on which actual arguments are specified, this functions calls the overloaded function with the correct arguments. The interim function is required because of Fortran90/95 limitations. The actual error analysis is carried out inside the overloaded functions. Two fields of these functions are intent(inout) variables:

  ```
  diff_counter : to count the number of difference
  error_level  : to allow for sums or averages over entire CPOs (see examples)
  ```

  These two variables are private to the error_analysis module.
  To access them please use the functions

  ```
  get_diff_counter()
  ```

  and

  ```
  get_error_level()
  ```

  The function

  ```
  set_error_level(err_level)
  ```

  may be used to specify an initial value for the variable `error_level` .

With

```
call set_diff_verbosity(verbosity)
```

you can set a verbosity level for the diff routines. verbosity = 0 produces no output, whereas verbosity > 0 produces verbose output.

The file `check_equilibrium.f90` represents a simple example for a program to compare two equilibrium CPOs one of which is used as a reference for test cases in code development. It clearly demonstrates the use of the diff_structures module.

The module `diff_structures.f90` and the auxiliary file `error_analysis.f90` and `check_equilibrium.f90` are hosted by the Gforge (29) project **itmshared** .
Check them out with

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/branches/tools target_dir
```

Two static libraries `libdiff_pgi.a` and `libdiff_g95.a` have been prebuilt on the ITM Gateway (29) .

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12 Conventions

12.1 Standard Machine Names

The following machine names are suggested:

- aug
- ftu
- iter
- jet
- mast
- tcv
- tore_supra
- west

12.2 Physics Conventions

The ITM-TF has agreed on a variety of conventions to facilitate the integration of the code modules across EFDA.
In the following the most important conventions are explained in detail to remove confusion and avoid ambiguity. For more physical detail than that represented here see F Hinton and R Hazeltine, *Rev Mod Phys* **48** (1976) 239-308, or R Hazeltine and J Meiss, *Plasma Confinement* (Addison-Wesley, 1992).

12.2.1 Coordinate System

There are generally two choices for defining a right-handed coordinate system in a toroidal geometry with the following coordinates:

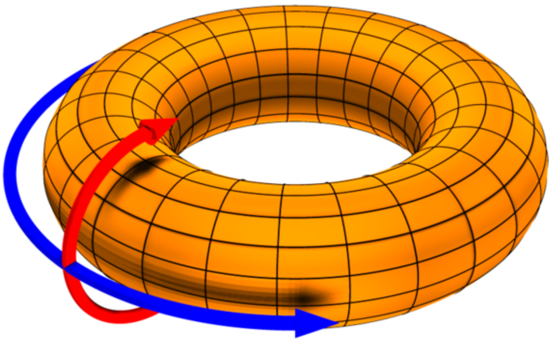
- major radius R
- vertical heights Z
- toroidal angle ϕ

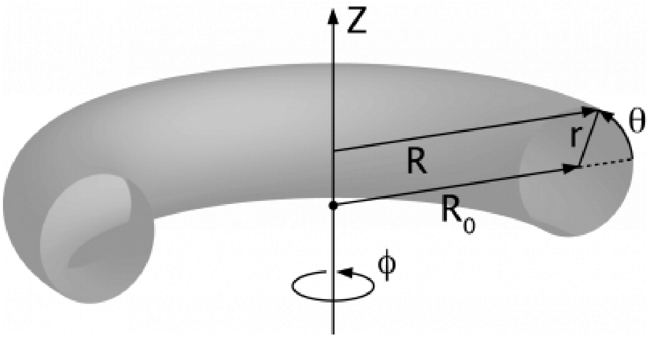
Remaining consistent with ITER, the ITM-TF has chosen to adopt the right-handed system

$$\boxed{(R, \phi, Z)}$$

i.e. R is to the right, Z is upwards, and ϕ points into the plane on the right-hand side of the torus (i.e. mathematically positive). Looking from above, the toroidal angle is counter-clockwise, i.e. mathematically positive.

The following figures demonstrate the orientation of the toroidal angle ϕ and the poloidal angle θ :





source:
http://www-fusion.ciemat.es/fusionwiki/index.php/Toroidal_coordinates [1143]
http://en.wikipedia.org/wiki/Toroidal_and_poloidal [1144]

12.2.2 Representation of the Magnetic Field and Current

Generally, the magnetic field is described in terms of two scalar fields as it is divergence free. If the field is also axisymmetric then MHD equilibrium demands these are functions of each other. In the ITM-TF the relevant quantities are F_{dia} and Ψ and the representation is

$$\mathbf{B} = F_{\mathrm{dia}} \nabla \phi + (2\pi)^{-1} \nabla \Psi \times \nabla \phi$$

where the factor of 2π is to have Ψ

one and the same with the poloidal flux in Webers (see below).

The current given by Ampere's law is

$$\mu_0 \mathbf{J} = \nabla F_{\mathrm{dia}} \times \nabla \phi - (2\pi)^{-1} (R^2 \nabla \cdot R^{-2} \nabla \Psi) \nabla \phi$$

The respective covariant toroidal components are useful forms:

$$B_\phi = F_{\mathrm{dia}} \qquad \mu_0 J_\phi = -(2\pi)^{-1} (R^2 \nabla \cdot R^{-2} \nabla \Psi)$$

where the latter is often expressed in terms of the "delta-star" operator, $\Delta^* = R^2 \nabla \cdot R^{-2} \nabla$.
These are not the toroidal field and current but the toroidal field and current multiplied by R respectively. The total plasma current I_p is the integral of J_ϕ / R

over the poloidal cross section (usually, but not always, over the closed flux surface region only).

12.2.3 Poloidal and Toroidal Fluxes

The toroidal flux Φ is the integral of B_ϕ/R over the region enclosed by the flux surface. Due to axisymmetry it is also a volume integral

$$\Phi = \oint d^3V\,(2\pi R^2)^{-1}\,F_{\mathrm{dia}}$$

All volume integrals are understood as integration over the region enclosed by the flux surface. They are therefore flux quantities (pure functions of Ψ). The units of Φ are volt-seconds, or Webers (Wb).

The poloidal flux is Ψ due to the construction of **B** . The factor of 2π

ensures this is not Wb per radian (the more usual quantity ψ used as a covariant toroidal component of the magnetic potential is in Wb/radian; the factor of 2π results from integration over one angular circuit). Note that the poloidal flux Ψ and its equivalent per radian ψ are often used equivalently in the literature.

12.2.4 Safety Factor

The magnetic pitch parameter is defined in terms of the flux components:

$$q \equiv d\Phi/d\Psi$$

which is a flux quantity. This definition is the same as saying the magnetic pitch is given as the number of toroidal cycle a magnetic field line traverses per unit poloidal cycle. It is also called the local safety factor for MHD stability reasons (here, ”local” means local to a given flux surface). Equivalent relations often seen depend on the definition of coordinates. These are given for straight field line coordinates, below.

12.2.5 Signs

With the above definition of the toroidal coordinate system and the magnetic field, the following sign relationships ensue (where increasing and decreasing refer to going from the magnetic axis to the separatrix on the outboard midplane):

Table 4769: Sign Relations

B_{tor}	I_p	Ψ	Φ	**safety factor** q
positive	positive	decreasing	increasing	negative
positive	negative	increasing	increasing	positive
negative	positive	decreasing	decreasing	positive
negative	negative	increasing	decreasing	negative

12.2.6 COCOS - toroidal coordinate conventions

16 different fundamental coordinate conventions (COCOS) has been identified for toroidal systems. These are described by O. Sauter and S. Yu. Medvedev, Computer Phys. Commun. 184 (2013) 293 [1145], and summarized in the figure below.

[1145] http://www.sciencedirect.com/science/article/pii/S0010465512002962

Table 1
(a) Coordinate conventions for each *COCOS* index. *COCOS* ≤ 8 refers to ψ divided by (2π) and thus with $e_{Bp} = 0$ while *COCOS* ≥ 11 refers to full poloidal flux with $e_{Bp} = 1$. Otherwise *COCOS* $= i$ and *COCOS* $= 10 + i$ have the same coordinate conventions. The cylindrical (with the related $\sigma_{R\varphi Z}$ value) and poloidal (with $\sigma_{\rho\theta\varphi}$) right-handed coordinate systems are given as well. (b) The indications in this subtable (last three columns) are assuming I_p and B_0 positive in the related coordinate system, that is in the direction of the related φ.

COCOS	e_{Bp}	σ_{Bp}	Cylind, $\sigma_{R\varphi Z}$	Poloid, $\sigma_{\rho\theta\varphi}$	φ from top	θ from front	ψ_{ref}	sign(q)	sign $\left(\frac{dp}{d\psi}\right)$
1/11	0/1	$+1$	$(R,\varphi,Z),+1$	$(\rho,\theta,\varphi),+1$	Cnt-clockwise	Clockwise	Increasing	$+1$	-1
2/12	0/1	$+1$	$(R,Z,\varphi),-1$	$(\rho,\theta,\varphi),+1$	Clockwise	Cnt-clockwise	Increasing	$+1$	-1
3/13	0/1	-1	$(R,\varphi,Z),+1$	$(\rho,\varphi,\theta),-1$	Cnt-clockwise	Cnt-clockwise	Decreasing	-1	$+1$
4/14	0/1	-1	$(R,Z,\varphi),-1$	$(\rho,\varphi,\theta),-1$	Clockwise	Clockwise	Decreasing	-1	$+1$
5/15	0/1	$+1$	$(R,\varphi,Z),+1$	$(\rho,\varphi,\theta),-1$	Cnt-clockwise	Cnt-clockwise	Increasing	-1	-1
6/16	0/1	$+1$	$(R,Z,\varphi),-1$	$(\rho,\varphi,\theta),-1$	Clockwise	Clockwise	Increasing	-1	-1
7/17	0/1	-1	$(R,\varphi,Z),+1$	$(\rho,\theta,\varphi),+1$	Cnt-clockwise	Clockwise	Decreasing	$+1$	$+1$
8/18	0/1	-1	$(R,Z,\varphi),-1$	$(\rho,\theta,\varphi),+1$	Clockwise	Cnt-clockwise	Decreasing	$+1$	$+1$
			(a)					(b)	

The current ITM convention (described above) is number 13, while the ITER convention is 11.

12.2.6.1 Determining the COCOS number

V. CHECKING THE CONSISTENCY OF EQUILIBRIUM QUANTITIES/ASSUMPTION WITH A *COCOS* INDEX

Let us obtain conditions of consistency of an input equilibrium with a specific *COCOS* index, generalizing Eq. (22). For this, it is easier to use Eq. (21) and to note that since with the CHEASE normalization we have I_p and B_0 positive, we should have I_p and F positive, ψ_{chease} increasing, $dp/d\psi_{chease}$ negative and q positive (from Table I, $COCOS = 2$ line). Thus, using Eq. (21) we should have for any *cocos* equilibrium:

$$
\begin{aligned}
\sigma_{Ip} &= sign(I_p), \\
\sigma_{B_0} &= sign(B_0), \\
sign(F_{cocos}) &= \sigma_{B_0}, \\
sign(\Phi_{cocos}) &= \sigma_{B_0}, \\
sign\big[\psi_{cocos}(\text{edge}) - \psi_{cocos}(\text{axis})\big] &= \sigma_{Ip}\,\sigma_{Bp,cocos}, \\
sign(\left.\frac{dp}{d\psi}\right|_{cocos}) &= -\,\sigma_{Ip}\,\sigma_{Bp,cocos}, \\
sign(j_{cocos}) &= \sigma_{Ip}, \\
sign(q_{cocos}) &= \sigma_{Ip}\,\sigma_{B_0}\,\sigma_{\rho\theta\varphi},
\end{aligned}
\tag{23}
$$

with $\sigma_{Bp,cocos}, \sigma_{\rho\theta\varphi}$ given in Table I for the related *cocos* value. Note that the sign of $dp/d\psi$ being $-\sigma_{Ip}\sigma_{Bp,cocos}$ should be understood as the "main" $sign(dp/d\psi)$ following the fact that pressure is usually much larger on axis than at the edge. To be more precise one could replace this relation by $sign(\sum_0^{\text{edge}} \frac{dp}{d\psi}\,\Delta\psi) = -1$.

It should be noted that Eq. (23) can also be used to determine the *COCOS* used in a code or set of equations. Usually, one starts by checking if ψ is increasing or decreasing from magnetic axis to the edge. Then, depending on $sign(I_P)$, one can obtain the value of $\sigma_{Bp,cocos}$. Another way is if $\mathbf{B}_p \sim \nabla\varphi \times \nabla\psi$, thus $\sigma_{Bp,cocos} = +1$ or $\mathbf{B}_p \sim \nabla\psi \times \nabla\varphi$, yielding $\sigma_{Bp,cocos} = -1$. Then one can check with the sign of $dp/d\psi$. The next step is to determine $\sigma_{R\varphi Z}$, either from the comparison of the sign of I_p and B_0 with the effective direction of I_p and B_0 if it is known, or by comparing the definition of B_R, for example, with Eqs. (12) and (13) and taking into account the value of σ_{Bp}. Then, the effective sign of q gives the value of $\sigma_{\rho\theta\varphi}$. Finally, e_{Bp} is obtained from the factor 2π appearing either in the definition of $\mathbf{B}_p$, Eq. (1), giving $e_{Bp} = 1$ or in the definition of q, Eq. (9), yielding $e_{Bp} = 0$. Note that if a specific sign of I_p or B_0 is used, it should be used in Eq. (23) to infer the *COCOS* value. In particular, some codes (Table IV) use a different sign for I_p and B_0, yielding a different effective sign of q.

12.2.6.2 Equilibrium COCOS transformation library and actor

A Fortran library has been developed for transforming the equilibrium cpo between different COCOS. The source is found in

```
https://gforge6.eufus.eu/svn/numerical_tools/tags/COCOStransform_v1_1
```

and the actor is

```
https://gforge6.eufus.eu/svn/kepleractors/tags/4.09a/imp12/COCOStransformequil.tar
```

(also available from: ~sauter/public/ACTORS/4.09a)

Inputs:

- `Equilibrium_in` : input cpo
- `COCOS_in` : COCOS of the input equilibrium (if the COCOS is not stored in Equilibrium_in)
- `COCOS_out` : Requested COCOS for the Equilibrium_out
- `Ipsign_out` : Requested sign for output Ip; -9 if just wants IP_in transformed to new equilibrium, +1 or -1 if a specific sign in output is desired
- `B0sign_out` : Requested sign for output B0

Output:

- `Equilibrium_out` : Output cpo

12.2.7 The Flux Surface Average

In general, the flux surface average is the operation which annihilates the magnetic derivative $\mathbf{B}\cdot\nabla$ and acts as an identity operator on any flux quantity. It can be proved that this results in a volume derivative of a volume integral (alternatively one starts with the latter property and then proves the former, as the above Ciemat reference does).

The flux surface average of a scalar and divergence of a vector are given by

$$\langle G\rangle = \frac{\partial}{\partial V}\oint d^3V\,G \qquad\qquad \langle\nabla\cdot\mathbf{G}\rangle = \frac{\partial}{\partial V}\langle\mathbf{G}\cdot\nabla V\rangle$$

where $\mathbf{G}\cdot\nabla V$ is the contravariant volume component of the vector $\mathbf{G}$.

It follows that the flux surface average is an angle average weighted by the volume element $\sqrt{g}$

$$\langle G\rangle = \oint d\phi \oint d\theta\,\sqrt{g}\,G \,/ \oint d\phi \oint d\theta\,\sqrt{g}$$

for any choice of toroidal and poloidal angle as well as radial coordinates, where g is the determinant of the covariant metric tensor components in those coordinates.

Note in general G is not an axisymmetric quantity so the integration is actually over both angles.

For more detail see the above references.

12.2.8 The Toroidal Flux Radius as the Radial Coordinate

The ITM-TF has decided to use the toroidal flux radius ρ_{tor} defined by

$$\Phi = \pi B_0 \rho_{\mathrm{tor}}^2$$

where B_0 is the reference (vacuum) magnetic field value. Note that $\rho_{\rm tor}$

is a positive quantity which has units of meters.
For several applications the volume radius $\rho_{\rm vol}$ is also used. It is a normalised radius going from 0 to 1 and is defined as

$$V = V_{\rm LCFS}\rho_{\rm vol}^2$$

where LCFS refers to the last closed flux surface.
Both should be defined in the equilibrium CPO (as well as `volume` $\equiv V$ itself).

12.2.9 Toroidal and Parallel Current

These are not equivalent, despite the often-seen experimental practice of considering them so. The toroidal current given in Amperes depends on some convention applied to J_ϕ given above, which is *not* a flux quantity. The ITM-TF has decided on this definition of the toroidal current as a flux quantity:

$$\texttt{jphi} \equiv \langle J^\phi\rangle / \langle 1/R\rangle$$

This uses the contravariant toroidal component of $\mathbf{J}$ which is a pure divergence

$$J^\phi = \mathbf{J}\cdot\nabla\phi = J_\phi/R^2 = -\nabla\cdot(2\pi\mu_0 R^2)^{-1}\nabla\Psi$$

Hence the flux surface average invokes the often-used quantity $\langle g^{\rho\rho}/R^2\rangle$ in the form

$$\langle J^\phi\rangle = -(2\pi\mu_0)^{-1}\frac{1}{V'_\rho}\frac{\partial}{\partial\rho}V'_\rho\langle g^{\rho\rho}/R^2\rangle\frac{\partial\Psi}{\partial\rho}$$

Here, $V'_\rho \equiv \partial V/\partial\rho_{\rm tor}$ explicitly using the toroidal flux radius as the radial coordinate.

The parallel current is different from this due to the finiteness of the poloidal current and magnetic field. Generally the correction is $O(\epsilon^2/q^2)$ which is usually a few percent (but *not* in a spherical tokamak). Using the representations for $\mathbf{B}$ and $\mathbf{J}$ given above we find

$$\mathbf{J}\cdot\mathbf{B} = -(2\pi\mu_0)^{-1}\,F_{\rm dia}^2\nabla\cdot\frac{1}{F_{\rm dia}R^2}\nabla\Psi$$

Since $F_{\rm dia}$ is a flux quantity the flux surface average behaves as for `jphi` and we use a factor of B_0 to provide the correct units, yielding

$$\texttt{jparallel} \equiv -(2\pi\mu_0 B_0)^{-1}\frac{F_{\rm dia}^2}{V'_\rho}\frac{\partial}{\partial\rho}\frac{V'_\rho}{F_{\rm dia}}\langle g^{\rho\rho}/R^2\rangle\frac{\partial\Psi}{\partial\rho}$$

This form has been chosen due to the natural use of the flux surface average $\langle\mathbf{J}\cdot\mathbf{B}\rangle$ in neoclassical theory and the magnetic flux diffusion equation (see the Hinton and Hazeltine reference above).

12.2.10 Straight Field Line Coordinates

A variety of modules in the ITM-TF use straight field line coordinate systems to represent the closed flux surface region.
To guarantee consistency with the definition of the poloidal flux and the magnetic field representation given above, a standard definition of the coordinate volume element follows. This is the same sense as the usage of the term "Jacobian" in the CPOs (note many papers use the inverse volume element as the "Jacobian" by contrast).
Here, "straight field line coordinates" refers to the use of the right-handed coordinate system (Ψ, θ, ζ) with

the poloidal flux Ψ , the straight field line angle θ , and the toroidal angle $\zeta = -\phi$. Therefore, θ has the same orientation as the poloidal angle θ in toroidal coordinates, while the toroidal angle ζ is in the opposite direction of ϕ . This is standard usage generally in terms of "flux coordinates" (see Hazeltine and Meiss, above).

Note here that while the toroidal angle is the geometric one in the orientation sense of flux coordinates, the poloidal angle is not geometric. This results from the demand that the field lines be straight in the coordinate plane (θ, ζ) . The definition of this property is given by the specification of the ratio of contravariant components of the magnetic field as a flux quantity, which is one and the same with the pitch parameter ("local safety factor"):

$$q = q(\Psi) = -B^{\zeta}/B^{\theta} = B^{\phi}/B^{\theta}$$

where the minus sign appears by consistency with the primary definition in terms of the flux components as given above. This represents a magnetic differential equation for the poloidal angle:

$$B^{\theta} = B^{\phi}/q = F_{\mathrm{dia}}/qR^2$$

Due to the choice of "natural" coordinates (with Ψ , not ρ_{tor}) this relation is close to the definition of the volume element $\sqrt{g}$ and, equivalently, the Jacobian J

$$J \equiv \sqrt{g} \qquad J^{-1} = \nabla\Psi \cdot \nabla\theta \times \nabla\zeta = \nabla\Psi \times \nabla\phi \cdot \nabla\theta$$

Note the ordering of $\nabla\Psi$ and $\nabla\phi$.
The components of the magnetic field are then

$$\begin{aligned} B^{\theta} &= \mathbf{B} \cdot \nabla\theta = (2\pi)^{-1}\nabla\Psi \times \nabla\phi \cdot \nabla\theta = (2\pi J)^{-1} \\ B^{\zeta} &= \mathbf{B} \cdot \nabla\zeta = -B_{\phi}/R^2 = -F_{\mathrm{dia}}/R^2 \\ B^{\Psi} &= \mathbf{B} \cdot \nabla\Psi = 0 \end{aligned}$$

With these relations the following relationship between the Jacobian and pitch parameter ("local safety factor") holds

$$J = (2\pi)^{-1}\, qR^2/F_{\mathrm{dia}}$$

This is the quantity labelled `jacobian` in the equilibrium CPO.

12.2.11 Plasma Betas

Out of the many definitions of plasma betas, the ITM has agreed to adhere to the following definitions:

Following Wesson (p. 116), the **poloidal beta** is defined as an integral over the poloidal cross section

$$\beta_{\mathrm{p}} = \frac{2\mu_0}{B_{\mathrm{a}}^2}\frac{\int_A p\mathrm{dS}}{\int_A \mathrm{dS}}$$

where $A = A(\Psi)$ is the poloidal cross section enclosed by the flux surface Ψ , $B_{\mathrm{a}} = \frac{\mu_0 I}{l}$ is the flux surface averaged poloidal magnetic field, $I = I(\Psi)$ the toroidal plasma current inside the flux surface Ψ and $l = \oint \mathrm{dl}$ the length of the poloidal perimeter of flux surface Ψ .
This definition yields a one-dimensional profile $\beta_{\mathrm{p}} = \beta_{\mathrm{p}}(\Psi)$ stored in `profiles_1d%beta_pol` in the equilibrium CPO (29) . The overall poloidal beta $\beta_{\mathrm{p}}(\Psi = \Psi_{\mathrm{bd}})$ is stored in `global_param%beta_pol` .

The **toroidal beta** is defined as

$$\beta_{\mathrm{tor}} = \frac{2\mu_0}{B_0^2}\frac{\int_\Omega p\mathrm{dV}}{\int_\Omega \mathrm{dV}}$$

with B_0 the vacuum magnetic field as stored in `global_param%toroid_field%b0` . The integral is carried out over the entire plasma volume and the result stored in `global_param%beta_tor` .

The normalized plasma beta is defined as

$$\beta_{\mathrm{N}} = 100 \frac{aB_0}{10^{-6} I_{\mathrm{p}}} \beta_{\mathrm{tor}}$$

with I_{p} the total plasma current (following Y.-S. Na et al., *PPCF* **44** (2002), 1285) and **a** is the minor radius. It is stored in `global_param%beta_normal` .

12.2.12 Internal Inductance

The definition of the internal inductance follows J.A. Romero et al., *NF* **50** (2010), 115002. The magnetic energy contained inside the flux surface Ψ is
$W_{\mathrm{mag}} = \frac{1}{2\mu_0} \int_\Omega B_{\mathrm{p}}^2 \mathrm{dV}$
where B_{p} is the poloidal component of the magnetic field.
The (unnormalized) internal inductance is then defined as
$L_{\mathrm{i}} = \frac{2W_{\mathrm{mag}}}{I^2}$
where $I = I(\Psi)$ is the toroidal plasma current enclosed by the flux surface Ψ .
The normalized internal inductance, as stored in `profiles_1d%li` is defined as

$$l_{\mathrm{i}} = \frac{2L_{\mathrm{i}}}{\mu_0 \bar{R}}$$

with the surface averaged major radius
$\bar{R} = \frac{\int_A R \mathrm{dS}}{\int_A \mathrm{dS}} = \frac{V(\Psi)}{2\pi A(\Psi)}$.
The overall internal inductance $l_{\mathrm{i}}(\Psi = \Psi_{\mathrm{bd}})$ is stored in `global_param%li` .

12.2.13 Poloidal Angle Dimension in Equilibrium CPO

The following entries in the equilibrium CPO (29) are defined along the poloidal dimension (as dim2 in the case of a flux surface equilibrium, i.e. radial coordinate psi in dim1 and poloidal angle in dim2):

```
coord_sys%jacobian(:,:)
coord_sys%g_11(:,:)
coord_sys%g_12(:,:)
coord_sys%g_13(:,:)
coord_sys%g_22(:,:)
coord_sys%g_23(:,:)
coord_sys%g_33(:,:)
profiles_2d%position
profiles_2d%grid
profiles_2d%psi_grid(:,:)
profiles_2d%jphi_grid(:,:)
profiles_2d%jpar_grid(:,:)
profiles_2d%br(:,:)
profiles_2d%bz(:,:)
profiles_2d%bphi(:,:)
```

The ITM-TF has decided not to repeat the first poloidal point (with poloidal angle $\theta = 0$), which is identical to $\theta = 2\pi$. This option was chosen to facilitate Fourier transforms along the poloidal direction. To that purpose it is required that the dimension dim2 be equidistant in the poloidal angle θ

(going from $\theta = 0$ to $\theta = (ndim2 - 1)/ndim2 * 2\pi$ where ndim2 is the number of poloidal grid points), whatever the choice of this angle is.

12.3 Numerical and computational conventions

12.3.1 Standardized Variable Types

To ensure that physics modules produce identical results on various computer architectures and to avoid issues with double precision versus single precision interfaces, the ITM-TF has agreed on a set of standardized variable types.
It is recommended that these types be used throughout all ITM modules, but at least for the interface definitions.
The Fortran90 module defining the type standards `itm_types.f90` is hosted by the project **itmshared** .
To check out the relevant files please do

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_types target_dir
```

For Fortran90, the following standard types have been defined

```
INTEGER,  PARAMETER :: ITM_I1 = SELECTED_INT_KIND (2)        ! Integer*1
INTEGER,  PARAMETER :: ITM_I2 = SELECTED_INT_KIND (4)        ! Integer*2
INTEGER,  PARAMETER :: ITM_I4 = SELECTED_INT_KIND (9)        ! Integer*4
INTEGER,  PARAMETER :: ITM_I8 = SELECTED_INT_KIND (18)       ! Integer*8
INTEGER,  PARAMETER :: R4 = SELECTED_REAL_KIND (6, 37)    ! Real*4
INTEGER,  PARAMETER :: R8 = SELECTED_REAL_KIND (15, 300) ! Real*8
```

To implement these types in your code, please add the following line to your modules

```
  use itm_types
```

Compiled versions of the module can be found in

```
  $ITMLIBDIR/itmtypes/lib/$OBJECTCODE
```

where the following values of OBJECTCODE are supported

```
amd64_g95_0.92
amd64_gfortran_4.7
amd64_intel_12
amd64_pgi_10
```

(More information about the ITM libraries (15.1).)

12.3.2 Standardized Physical Constants

To avoid discrepancies in simulations from using different definitions of the physical constants, the ITM-TF has agreed upon a set of standardized physical constants (all in SI units except for temperatures) based on the NIST recommendations [1146].
It is recommended that these constant be used throughout all ITM modules.
The Fortran90 module defining the standardized physical constants `itm_constants.f90` is hosted by the project **itmshared** .
To check out the relevant files please do

```
svn checkout https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants target_dir
```

Compiled versions of the module can be found in

[1146] http://physics.nist.gov/cuu/Constants/index.html

```
$ITMLIBDIR/itmconstants/lib/$OBJECTCODE
```

where the following values of OBJECTCODE are supported

```
amd64_g95_0.92
amd64_gfortran_4.7
amd64_intel_12
amd64_pgi_10
```

The C equivalent ("itm_constants.h") can be found in

```
$ITMLIBDIR/itmconstants/include/
```

and the Python in

```
$ITMLIBDIR/itmconstants/lib/python2.6/
```

A Java version is available but has not yet been released — contact ISIP if you are interested.
(More information about the ITM libraries (15.1).)
The following constants are available:

12.3.2.1 itm_constants

```
Module implementing the ITM physics constants

Source:
 based on SOLPS b2mod_constants.F
   09/12/2007 xpb : source CODATA 2006 (http://www.nist.gov/)
   08/19/2011 xpb : source CODATA 2010 (http://www.nist.gov/)
 pulled from ets r100

\author David Coster

\version "$Id: itm_constants.xml 2024 2015-03-24 15:22:07Z tjohnson $"
```

Fortran interface example:

```
use itm_constants, only: get_type_value, get_type_name, get_type_description
```

Name	Value	Description
ITM_PI	3.141592653589793238462643383280	
ITM_C	2.99792458e8	speed of light
ITM_ME	9.10938291e-31	electron mass
ITM_MP	1.672621777e-27	proton mass
ITM_MN	1.674927351e-27	neutron mass
ITM_MD	3.34358348e-27	deuteron mass
ITM_MT	5.00735630e-27	triton mass
ITM_MA	6.64465675e-27	alpha mass
ITM_AMU	1.660538921e-27	atomic mass unit
ITM_EV	1.602176565e-19	electron volt (eV)
ITM_QE	ITM_EV	elementary charge
ITM_MU0	4.0e-7 * ITM_PI	vacuum permeability
ITM_EPS0	1.0 / (ITM_MU0 * ITM_C * ITM_C)	

Name	Value	Description
ITM_AVOGR	6.02214129e23	
ITM_KBOLT	1.3806488e-23	
ITM_MASS_H_1	1.00782503207 * ITM_AMU	isotope mass
ITM_MASS_H_2	2.0141017778 * ITM_AMU	isotope mass
ITM_MASS_H_3	3.0160492777 * ITM_AMU	isotope mass
ITM_MASS_H_4	4.02781 * ITM_AMU	isotope mass
ITM_MASS_H_5	5.03531 * ITM_AMU	isotope mass
ITM_MASS_H_6	6.04494 * ITM_AMU	isotope mass
ITM_MASS_H_7	7.05275 * ITM_AMU	isotope mass
ITM_MASS_He_3	3.0160293191 * ITM_AMU	isotope mass
ITM_MASS_He_4	4.00260325415 * ITM_AMU	isotope mass
ITM_MASS_He_5	5.012220 * ITM_AMU	isotope mass
ITM_MASS_He_6	6.0188891 * ITM_AMU	isotope mass
ITM_MASS_He_7	7.028021 * ITM_AMU	isotope mass
ITM_MASS_He_8	8.033922 * ITM_AMU	isotope mass
ITM_MASS_He_9	9.043950 * ITM_AMU	isotope mass
ITM_MASS_He_10	10.052400 * ITM_AMU	isotope mass
ITM_MASS_Li_3	3.03078 * ITM_AMU	isotope mass
ITM_MASS_Li_4	4.02719 * ITM_AMU	isotope mass
ITM_MASS_Li_5	5.012540 * ITM_AMU	isotope mass
ITM_MASS_Li_6	6.015122795 * ITM_AMU	isotope mass
ITM_MASS_Li_7	7.01600455 * ITM_AMU	isotope mass
ITM_MASS_Li_8	8.02248736 * ITM_AMU	isotope mass
ITM_MASS_Li_9	9.0267895 * ITM_AMU	isotope mass
ITM_MASS_Li_10	10.035481 * ITM_AMU	isotope mass
ITM_MASS_Li_11	11.043798 * ITM_AMU	isotope mass
ITM_MASS_Li_12	12.05378 * ITM_AMU	isotope mass
ITM_MASS_Be_5	5.04079 * ITM_AMU	isotope mass
ITM_MASS_Be_6	6.019726 * ITM_AMU	isotope mass
ITM_MASS_Be_7	7.01692983 * ITM_AMU	isotope mass
ITM_MASS_Be_8	8.00530510 * ITM_AMU	isotope mass
ITM_MASS_Be_9	9.0121822 * ITM_AMU	isotope mass
ITM_MASS_Be_10	10.0135338 * ITM_AMU	isotope mass
ITM_MASS_Be_11	11.021658 * ITM_AMU	isotope mass
ITM_MASS_Be_12	12.026921 * ITM_AMU	isotope mass
ITM_MASS_Be_13	13.035690 * ITM_AMU	isotope mass
ITM_MASS_Be_14	14.04289 * ITM_AMU	isotope mass
ITM_MASS_Be_15	15.05346 * ITM_AMU	isotope mass
ITM_MASS_Be_16	16.06192 * ITM_AMU	isotope mass
ITM_MASS_B_6	6.04681 * ITM_AMU	isotope mass
ITM_MASS_B_7	7.029920 * ITM_AMU	isotope mass
ITM_MASS_B_8	8.0246072 * ITM_AMU	isotope mass
ITM_MASS_B_9	9.0133288 * ITM_AMU	isotope mass
ITM_MASS_B_10	10.0129370 * ITM_AMU	isotope mass
ITM_MASS_B_11	11.0093054 * ITM_AMU	isotope mass
ITM_MASS_B_12	12.0143521 * ITM_AMU	isotope mass
ITM_MASS_B_13	13.0177802 * ITM_AMU	isotope mass
ITM_MASS_B_14	14.025404 * ITM_AMU	isotope mass
ITM_MASS_B_15	15.031103 * ITM_AMU	isotope mass
ITM_MASS_B_16	16.039810 * ITM_AMU	isotope mass
ITM_MASS_B_17	17.04699 * ITM_AMU	isotope mass
ITM_MASS_B_18	18.05617 * ITM_AMU	isotope mass
ITM_MASS_B_19	19.06373 * ITM_AMU	isotope mass
ITM_MASS_C_8	8.037675 * ITM_AMU	isotope mass
ITM_MASS_C_9	9.0310367 * ITM_AMU	isotope mass
ITM_MASS_C_10	10.0168532 * ITM_AMU	isotope mass
ITM_MASS_C_11	11.0114336 * ITM_AMU	isotope mass
ITM_MASS_C_12	12.0000000 * ITM_AMU	isotope mass
ITM_MASS_C_13	13.0033548378 * ITM_AMU	isotope mass
ITM_MASS_C_14	14.003241989 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_C_15	15.0105993 * ITM_AMU	isotope mass
ITM_MASS_C_16	16.014701 * ITM_AMU	isotope mass
ITM_MASS_C_17	17.022586 * ITM_AMU	isotope mass
ITM_MASS_C_18	18.026760 * ITM_AMU	isotope mass
ITM_MASS_C_19	19.03481 * ITM_AMU	isotope mass
ITM_MASS_C_20	20.04032 * ITM_AMU	isotope mass
ITM_MASS_C_21	21.04934 * ITM_AMU	isotope mass
ITM_MASS_C_22	22.05720 * ITM_AMU	isotope mass
ITM_MASS_N_10	10.04165 * ITM_AMU	isotope mass
ITM_MASS_N_11	11.026090 * ITM_AMU	isotope mass
ITM_MASS_N_12	12.0186132 * ITM_AMU	isotope mass
ITM_MASS_N_13	13.00573861 * ITM_AMU	isotope mass
ITM_MASS_N_14	14.0030740048 * ITM_AMU	isotope mass
ITM_MASS_N_15	15.0001088982 * ITM_AMU	isotope mass
ITM_MASS_N_16	16.0061017 * ITM_AMU	isotope mass
ITM_MASS_N_17	17.008450 * ITM_AMU	isotope mass
ITM_MASS_N_18	18.014079 * ITM_AMU	isotope mass
ITM_MASS_N_19	19.017029 * ITM_AMU	isotope mass
ITM_MASS_N_20	20.023370 * ITM_AMU	isotope mass
ITM_MASS_N_21	21.02711 * ITM_AMU	isotope mass
ITM_MASS_N_22	22.03439 * ITM_AMU	isotope mass
ITM_MASS_N_23	23.04122 * ITM_AMU	isotope mass
ITM_MASS_N_24	24.05104 * ITM_AMU	isotope mass
ITM_MASS_N_25	25.06066 * ITM_AMU	isotope mass
ITM_MASS_O_12	12.034405 * ITM_AMU	isotope mass
ITM_MASS_O_13	13.024812 * ITM_AMU	isotope mass
ITM_MASS_O_14	14.00859625 * ITM_AMU	isotope mass
ITM_MASS_O_15	15.0030656 * ITM_AMU	isotope mass
ITM_MASS_O_16	15.99491461956 * ITM_AMU	isotope mass
ITM_MASS_O_17	16.99913170 * ITM_AMU	isotope mass
ITM_MASS_O_18	17.9991610 * ITM_AMU	isotope mass
ITM_MASS_O_19	19.003580 * ITM_AMU	isotope mass
ITM_MASS_O_20	20.0040767 * ITM_AMU	isotope mass
ITM_MASS_O_21	21.008656 * ITM_AMU	isotope mass
ITM_MASS_O_22	22.009970 * ITM_AMU	isotope mass
ITM_MASS_O_23	23.01569 * ITM_AMU	isotope mass
ITM_MASS_O_24	24.02047 * ITM_AMU	isotope mass
ITM_MASS_O_25	25.02946 * ITM_AMU	isotope mass
ITM_MASS_O_26	26.03834 * ITM_AMU	isotope mass
ITM_MASS_O_27	27.04826 * ITM_AMU	isotope mass
ITM_MASS_O_28	28.05781 * ITM_AMU	isotope mass
ITM_MASS_F_14	14.03506 * ITM_AMU	isotope mass
ITM_MASS_F_15	15.01801 * ITM_AMU	isotope mass
ITM_MASS_F_16	16.011466 * ITM_AMU	isotope mass
ITM_MASS_F_17	17.00209524 * ITM_AMU	isotope mass
ITM_MASS_F_18	18.0009380 * ITM_AMU	isotope mass
ITM_MASS_F_19	18.99840322 * ITM_AMU	isotope mass
ITM_MASS_F_20	19.99998132 * ITM_AMU	isotope mass
ITM_MASS_F_21	20.9999490 * ITM_AMU	isotope mass
ITM_MASS_F_22	22.002999 * ITM_AMU	isotope mass
ITM_MASS_F_23	23.003570 * ITM_AMU	isotope mass
ITM_MASS_F_24	24.008120 * ITM_AMU	isotope mass
ITM_MASS_F_25	25.01210 * ITM_AMU	isotope mass
ITM_MASS_F_26	26.01962 * ITM_AMU	isotope mass
ITM_MASS_F_27	27.02676 * ITM_AMU	isotope mass
ITM_MASS_F_28	28.03567 * ITM_AMU	isotope mass
ITM_MASS_F_29	29.04326 * ITM_AMU	isotope mass
ITM_MASS_F_30	30.05250 * ITM_AMU	isotope mass
ITM_MASS_F_31	31.06043 * ITM_AMU	isotope mass
ITM_MASS_Ne_16	16.025761 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ne_17	17.017672 * ITM_AMU	isotope mass
ITM_MASS_Ne_18	18.0057082 * ITM_AMU	isotope mass
ITM_MASS_Ne_19	19.0018802 * ITM_AMU	isotope mass
ITM_MASS_Ne_20	19.9924401754 * ITM_AMU	isotope mass
ITM_MASS_Ne_21	20.99384668 * ITM_AMU	isotope mass
ITM_MASS_Ne_22	21.991385114 * ITM_AMU	isotope mass
ITM_MASS_Ne_23	22.99446690 * ITM_AMU	isotope mass
ITM_MASS_Ne_24	23.9936108 * ITM_AMU	isotope mass
ITM_MASS_Ne_25	24.997737 * ITM_AMU	isotope mass
ITM_MASS_Ne_26	26.000461 * ITM_AMU	isotope mass
ITM_MASS_Ne_27	27.00759 * ITM_AMU	isotope mass
ITM_MASS_Ne_28	28.01207 * ITM_AMU	isotope mass
ITM_MASS_Ne_29	29.01939 * ITM_AMU	isotope mass
ITM_MASS_Ne_30	30.02480 * ITM_AMU	isotope mass
ITM_MASS_Ne_31	31.03311 * ITM_AMU	isotope mass
ITM_MASS_Ne_32	32.04002 * ITM_AMU	isotope mass
ITM_MASS_Ne_33	33.04938 * ITM_AMU	isotope mass
ITM_MASS_Ne_34	34.05703 * ITM_AMU	isotope mass
ITM_MASS_Na_18	18.025970 * ITM_AMU	isotope mass
ITM_MASS_Na_19	19.013877 * ITM_AMU	isotope mass
ITM_MASS_Na_20	20.007351 * ITM_AMU	isotope mass
ITM_MASS_Na_21	20.9976552 * ITM_AMU	isotope mass
ITM_MASS_Na_22	21.9944364 * ITM_AMU	isotope mass
ITM_MASS_Na_23	22.9897692809 * ITM_AMU	isotope mass
ITM_MASS_Na_24	23.99096278 * ITM_AMU	isotope mass
ITM_MASS_Na_25	24.9899540 * ITM_AMU	isotope mass
ITM_MASS_Na_26	25.992633 * ITM_AMU	isotope mass
ITM_MASS_Na_27	26.994077 * ITM_AMU	isotope mass
ITM_MASS_Na_28	27.998938 * ITM_AMU	isotope mass
ITM_MASS_Na_29	29.002861 * ITM_AMU	isotope mass
ITM_MASS_Na_30	30.008976 * ITM_AMU	isotope mass
ITM_MASS_Na_31	31.01359 * ITM_AMU	isotope mass
ITM_MASS_Na_32	32.02047 * ITM_AMU	isotope mass
ITM_MASS_Na_33	33.02672 * ITM_AMU	isotope mass
ITM_MASS_Na_34	34.03517 * ITM_AMU	isotope mass
ITM_MASS_Na_35	35.04249 * ITM_AMU	isotope mass
ITM_MASS_Na_36	36.05148 * ITM_AMU	isotope mass
ITM_MASS_Na_37	37.05934 * ITM_AMU	isotope mass
ITM_MASS_Mg_19	19.03547 * ITM_AMU	isotope mass
ITM_MASS_Mg_20	20.018863 * ITM_AMU	isotope mass
ITM_MASS_Mg_21	21.011713 * ITM_AMU	isotope mass
ITM_MASS_Mg_22	21.9995738 * ITM_AMU	isotope mass
ITM_MASS_Mg_23	22.9941237 * ITM_AMU	isotope mass
ITM_MASS_Mg_24	23.985041700 * ITM_AMU	isotope mass
ITM_MASS_Mg_25	24.98583692 * ITM_AMU	isotope mass
ITM_MASS_Mg_26	25.982592929 * ITM_AMU	isotope mass
ITM_MASS_Mg_27	26.98434059 * ITM_AMU	isotope mass
ITM_MASS_Mg_28	27.9838768 * ITM_AMU	isotope mass
ITM_MASS_Mg_29	28.988600 * ITM_AMU	isotope mass
ITM_MASS_Mg_30	29.990434 * ITM_AMU	isotope mass
ITM_MASS_Mg_31	30.996546 * ITM_AMU	isotope mass
ITM_MASS_Mg_32	31.998975 * ITM_AMU	isotope mass
ITM_MASS_Mg_33	33.005254 * ITM_AMU	isotope mass
ITM_MASS_Mg_34	34.00946 * ITM_AMU	isotope mass
ITM_MASS_Mg_35	35.01734 * ITM_AMU	isotope mass
ITM_MASS_Mg_36	36.02300 * ITM_AMU	isotope mass
ITM_MASS_Mg_37	37.03140 * ITM_AMU	isotope mass
ITM_MASS_Mg_38	38.03757 * ITM_AMU	isotope mass
ITM_MASS_Mg_39	39.04677 * ITM_AMU	isotope mass
ITM_MASS_Mg_40	40.05393 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Al_21	21.02804 * ITM_AMU	isotope mass
ITM_MASS_Al_22	22.01952 * ITM_AMU	isotope mass
ITM_MASS_Al_23	23.007267 * ITM_AMU	isotope mass
ITM_MASS_Al_24	23.9999389 * ITM_AMU	isotope mass
ITM_MASS_Al_25	24.9904281 * ITM_AMU	isotope mass
ITM_MASS_Al_26	25.98689169 * ITM_AMU	isotope mass
ITM_MASS_Al_27	26.98153863 * ITM_AMU	isotope mass
ITM_MASS_Al_28	27.98191031 * ITM_AMU	isotope mass
ITM_MASS_Al_29	28.9804450 * ITM_AMU	isotope mass
ITM_MASS_Al_30	29.982960 * ITM_AMU	isotope mass
ITM_MASS_Al_31	30.983947 * ITM_AMU	isotope mass
ITM_MASS_Al_32	31.988120 * ITM_AMU	isotope mass
ITM_MASS_Al_33	32.990840 * ITM_AMU	isotope mass
ITM_MASS_Al_34	33.99685 * ITM_AMU	isotope mass
ITM_MASS_Al_35	34.99986 * ITM_AMU	isotope mass
ITM_MASS_Al_36	36.00621 * ITM_AMU	isotope mass
ITM_MASS_Al_37	37.01068 * ITM_AMU	isotope mass
ITM_MASS_Al_38	38.01723 * ITM_AMU	isotope mass
ITM_MASS_Al_39	39.02297 * ITM_AMU	isotope mass
ITM_MASS_Al_40	40.03145 * ITM_AMU	isotope mass
ITM_MASS_Al_41	41.03833 * ITM_AMU	isotope mass
ITM_MASS_Al_42	42.04689 * ITM_AMU	isotope mass
ITM_MASS_Si_22	22.03453 * ITM_AMU	isotope mass
ITM_MASS_Si_23	23.02552 * ITM_AMU	isotope mass
ITM_MASS_Si_24	24.011546 * ITM_AMU	isotope mass
ITM_MASS_Si_25	25.004106 * ITM_AMU	isotope mass
ITM_MASS_Si_26	25.992330 * ITM_AMU	isotope mass
ITM_MASS_Si_27	26.98670491 * ITM_AMU	isotope mass
ITM_MASS_Si_28	27.9769265325 * ITM_AMU	isotope mass
ITM_MASS_Si_29	28.976494700 * ITM_AMU	isotope mass
ITM_MASS_Si_30	29.97377017 * ITM_AMU	isotope mass
ITM_MASS_Si_31	30.97536323 * ITM_AMU	isotope mass
ITM_MASS_Si_32	31.97414808 * ITM_AMU	isotope mass
ITM_MASS_Si_33	32.978000 * ITM_AMU	isotope mass
ITM_MASS_Si_34	33.978576 * ITM_AMU	isotope mass
ITM_MASS_Si_35	34.984580 * ITM_AMU	isotope mass
ITM_MASS_Si_36	35.98660 * ITM_AMU	isotope mass
ITM_MASS_Si_37	36.99294 * ITM_AMU	isotope mass
ITM_MASS_Si_38	37.99563 * ITM_AMU	isotope mass
ITM_MASS_Si_39	39.00207 * ITM_AMU	isotope mass
ITM_MASS_Si_40	40.00587 * ITM_AMU	isotope mass
ITM_MASS_Si_41	41.01456 * ITM_AMU	isotope mass
ITM_MASS_Si_42	42.01979 * ITM_AMU	isotope mass
ITM_MASS_Si_43	43.02866 * ITM_AMU	isotope mass
ITM_MASS_Si_44	44.03526 * ITM_AMU	isotope mass
ITM_MASS_P_24	24.03435 * ITM_AMU	isotope mass
ITM_MASS_P_25	25.02026 * ITM_AMU	isotope mass
ITM_MASS_P_26	26.01178 * ITM_AMU	isotope mass
ITM_MASS_P_27	26.999230 * ITM_AMU	isotope mass
ITM_MASS_P_28	27.992315 * ITM_AMU	isotope mass
ITM_MASS_P_29	28.9818006 * ITM_AMU	isotope mass
ITM_MASS_P_30	29.9783138 * ITM_AMU	isotope mass
ITM_MASS_P_31	30.97376163 * ITM_AMU	isotope mass
ITM_MASS_P_32	31.97390727 * ITM_AMU	isotope mass
ITM_MASS_P_33	32.9717255 * ITM_AMU	isotope mass
ITM_MASS_P_34	33.973636 * ITM_AMU	isotope mass
ITM_MASS_P_35	34.9733141 * ITM_AMU	isotope mass
ITM_MASS_P_36	35.978260 * ITM_AMU	isotope mass
ITM_MASS_P_37	36.979610 * ITM_AMU	isotope mass
ITM_MASS_P_38	37.98416 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_P_39	38.98618 * ITM_AMU	isotope mass
ITM_MASS_P_40	39.99130 * ITM_AMU	isotope mass
ITM_MASS_P_41	40.99434 * ITM_AMU	isotope mass
ITM_MASS_P_42	42.00101 * ITM_AMU	isotope mass
ITM_MASS_P_43	43.00619 * ITM_AMU	isotope mass
ITM_MASS_P_44	44.01299 * ITM_AMU	isotope mass
ITM_MASS_P_45	45.01922 * ITM_AMU	isotope mass
ITM_MASS_P_46	46.02738 * ITM_AMU	isotope mass
ITM_MASS_S_26	26.02788 * ITM_AMU	isotope mass
ITM_MASS_S_27	27.01883 * ITM_AMU	isotope mass
ITM_MASS_S_28	28.00437 * ITM_AMU	isotope mass
ITM_MASS_S_29	28.996610 * ITM_AMU	isotope mass
ITM_MASS_S_30	29.984903 * ITM_AMU	isotope mass
ITM_MASS_S_31	30.9795547 * ITM_AMU	isotope mass
ITM_MASS_S_32	31.97207100 * ITM_AMU	isotope mass
ITM_MASS_S_33	32.97145876 * ITM_AMU	isotope mass
ITM_MASS_S_34	33.96786690 * ITM_AMU	isotope mass
ITM_MASS_S_35	34.96903216 * ITM_AMU	isotope mass
ITM_MASS_S_36	35.96708076 * ITM_AMU	isotope mass
ITM_MASS_S_37	36.97112557 * ITM_AMU	isotope mass
ITM_MASS_S_38	37.971163 * ITM_AMU	isotope mass
ITM_MASS_S_39	38.975130 * ITM_AMU	isotope mass
ITM_MASS_S_40	39.97545 * ITM_AMU	isotope mass
ITM_MASS_S_41	40.97958 * ITM_AMU	isotope mass
ITM_MASS_S_42	41.98102 * ITM_AMU	isotope mass
ITM_MASS_S_43	42.98715 * ITM_AMU	isotope mass
ITM_MASS_S_44	43.99021 * ITM_AMU	isotope mass
ITM_MASS_S_45	44.99651 * ITM_AMU	isotope mass
ITM_MASS_S_46	46.00075 * ITM_AMU	isotope mass
ITM_MASS_S_47	47.00859 * ITM_AMU	isotope mass
ITM_MASS_S_48	48.01417 * ITM_AMU	isotope mass
ITM_MASS_S_49	49.02362 * ITM_AMU	isotope mass
ITM_MASS_Cl_28	28.02851 * ITM_AMU	isotope mass
ITM_MASS_Cl_29	29.01411 * ITM_AMU	isotope mass
ITM_MASS_Cl_30	30.00477 * ITM_AMU	isotope mass
ITM_MASS_Cl_31	30.992410 * ITM_AMU	isotope mass
ITM_MASS_Cl_32	31.985690 * ITM_AMU	isotope mass
ITM_MASS_Cl_33	32.9774519 * ITM_AMU	isotope mass
ITM_MASS_Cl_34	33.97376282 * ITM_AMU	isotope mass
ITM_MASS_Cl_35	34.96885268 * ITM_AMU	isotope mass
ITM_MASS_Cl_36	35.96830698 * ITM_AMU	isotope mass
ITM_MASS_Cl_37	36.96590259 * ITM_AMU	isotope mass
ITM_MASS_Cl_38	37.96801043 * ITM_AMU	isotope mass
ITM_MASS_Cl_39	38.9680082 * ITM_AMU	isotope mass
ITM_MASS_Cl_40	39.970420 * ITM_AMU	isotope mass
ITM_MASS_Cl_41	40.970680 * ITM_AMU	isotope mass
ITM_MASS_Cl_42	41.97325 * ITM_AMU	isotope mass
ITM_MASS_Cl_43	42.97405 * ITM_AMU	isotope mass
ITM_MASS_Cl_44	43.97828 * ITM_AMU	isotope mass
ITM_MASS_Cl_45	44.98029 * ITM_AMU	isotope mass
ITM_MASS_Cl_46	45.98421 * ITM_AMU	isotope mass
ITM_MASS_Cl_47	46.98871 * ITM_AMU	isotope mass
ITM_MASS_Cl_48	47.99495 * ITM_AMU	isotope mass
ITM_MASS_Cl_49	49.00032 * ITM_AMU	isotope mass
ITM_MASS_Cl_50	50.00784 * ITM_AMU	isotope mass
ITM_MASS_Cl_51	51.01449 * ITM_AMU	isotope mass
ITM_MASS_Ar_30	30.02156 * ITM_AMU	isotope mass
ITM_MASS_Ar_31	31.01212 * ITM_AMU	isotope mass
ITM_MASS_Ar_32	31.9976380 * ITM_AMU	isotope mass
ITM_MASS_Ar_33	32.9899257 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ar_34	33.9802712 * ITM_AMU	isotope mass
ITM_MASS_Ar_35	34.9752576 * ITM_AMU	isotope mass
ITM_MASS_Ar_36	35.967545106 * ITM_AMU	isotope mass
ITM_MASS_Ar_37	36.96677632 * ITM_AMU	isotope mass
ITM_MASS_Ar_38	37.9627324 * ITM_AMU	isotope mass
ITM_MASS_Ar_39	38.964313 * ITM_AMU	isotope mass
ITM_MASS_Ar_40	39.9623831225 * ITM_AMU	isotope mass
ITM_MASS_Ar_41	40.9645006 * ITM_AMU	isotope mass
ITM_MASS_Ar_42	41.963046 * ITM_AMU	isotope mass
ITM_MASS_Ar_43	42.965636 * ITM_AMU	isotope mass
ITM_MASS_Ar_44	43.9649240 * ITM_AMU	isotope mass
ITM_MASS_Ar_45	44.9680400 * ITM_AMU	isotope mass
ITM_MASS_Ar_46	45.968090 * ITM_AMU	isotope mass
ITM_MASS_Ar_47	46.97219 * ITM_AMU	isotope mass
ITM_MASS_Ar_48	47.97454 * ITM_AMU	isotope mass
ITM_MASS_Ar_49	48.98052 * ITM_AMU	isotope mass
ITM_MASS_Ar_50	49.98443 * ITM_AMU	isotope mass
ITM_MASS_Ar_51	50.99163 * ITM_AMU	isotope mass
ITM_MASS_Ar_52	51.99678 * ITM_AMU	isotope mass
ITM_MASS_Ar_53	53.00494 * ITM_AMU	isotope mass
ITM_MASS_K_32	32.02192 * ITM_AMU	isotope mass
ITM_MASS_K_33	33.00726 * ITM_AMU	isotope mass
ITM_MASS_K_34	33.99841 * ITM_AMU	isotope mass
ITM_MASS_K_35	34.988010 * ITM_AMU	isotope mass
ITM_MASS_K_36	35.981292 * ITM_AMU	isotope mass
ITM_MASS_K_37	36.97337589 * ITM_AMU	isotope mass
ITM_MASS_K_38	37.9690812 * ITM_AMU	isotope mass
ITM_MASS_K_39	38.96370668 * ITM_AMU	isotope mass
ITM_MASS_K_40	39.96399848 * ITM_AMU	isotope mass
ITM_MASS_K_41	40.96182576 * ITM_AMU	isotope mass
ITM_MASS_K_42	41.96240281 * ITM_AMU	isotope mass
ITM_MASS_K_43	42.960716 * ITM_AMU	isotope mass
ITM_MASS_K_44	43.961560 * ITM_AMU	isotope mass
ITM_MASS_K_45	44.960699 * ITM_AMU	isotope mass
ITM_MASS_K_46	45.961977 * ITM_AMU	isotope mass
ITM_MASS_K_47	46.961678 * ITM_AMU	isotope mass
ITM_MASS_K_48	47.965514 * ITM_AMU	isotope mass
ITM_MASS_K_49	48.967450 * ITM_AMU	isotope mass
ITM_MASS_K_50	49.97278 * ITM_AMU	isotope mass
ITM_MASS_K_51	50.97638 * ITM_AMU	isotope mass
ITM_MASS_K_52	51.98261 * ITM_AMU	isotope mass
ITM_MASS_K_53	52.98712 * ITM_AMU	isotope mass
ITM_MASS_K_54	53.99420 * ITM_AMU	isotope mass
ITM_MASS_K_55	54.99971 * ITM_AMU	isotope mass
ITM_MASS_Ca_34	34.01412 * ITM_AMU	isotope mass
ITM_MASS_Ca_35	35.00494 * ITM_AMU	isotope mass
ITM_MASS_Ca_36	35.993090 * ITM_AMU	isotope mass
ITM_MASS_Ca_37	36.985870 * ITM_AMU	isotope mass
ITM_MASS_Ca_38	37.976318 * ITM_AMU	isotope mass
ITM_MASS_Ca_39	38.9707197 * ITM_AMU	isotope mass
ITM_MASS_Ca_40	39.96259098 * ITM_AMU	isotope mass
ITM_MASS_Ca_41	40.96227806 * ITM_AMU	isotope mass
ITM_MASS_Ca_42	41.95861801 * ITM_AMU	isotope mass
ITM_MASS_Ca_43	42.9587666 * ITM_AMU	isotope mass
ITM_MASS_Ca_44	43.9554818 * ITM_AMU	isotope mass
ITM_MASS_Ca_45	44.9561866 * ITM_AMU	isotope mass
ITM_MASS_Ca_46	45.9536926 * ITM_AMU	isotope mass
ITM_MASS_Ca_47	46.9545460 * ITM_AMU	isotope mass
ITM_MASS_Ca_48	47.952534 * ITM_AMU	isotope mass
ITM_MASS_Ca_49	48.955674 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ca_50	49.957519 * ITM_AMU	isotope mass
ITM_MASS_Ca_51	50.96150 * ITM_AMU	isotope mass
ITM_MASS_Ca_52	51.96510 * ITM_AMU	isotope mass
ITM_MASS_Ca_53	52.97005 * ITM_AMU	isotope mass
ITM_MASS_Ca_54	53.97435 * ITM_AMU	isotope mass
ITM_MASS_Ca_55	54.98055 * ITM_AMU	isotope mass
ITM_MASS_Ca_56	55.98557 * ITM_AMU	isotope mass
ITM_MASS_Ca_57	56.99236 * ITM_AMU	isotope mass
ITM_MASS_Sc_36	36.01492 * ITM_AMU	isotope mass
ITM_MASS_Sc_37	37.00305 * ITM_AMU	isotope mass
ITM_MASS_Sc_38	37.99470 * ITM_AMU	isotope mass
ITM_MASS_Sc_39	38.984790 * ITM_AMU	isotope mass
ITM_MASS_Sc_40	39.977967 * ITM_AMU	isotope mass
ITM_MASS_Sc_41	40.96925113 * ITM_AMU	isotope mass
ITM_MASS_Sc_42	41.96551643 * ITM_AMU	isotope mass
ITM_MASS_Sc_43	42.9611507 * ITM_AMU	isotope mass
ITM_MASS_Sc_44	43.9594028 * ITM_AMU	isotope mass
ITM_MASS_Sc_45	44.9559119 * ITM_AMU	isotope mass
ITM_MASS_Sc_46	45.9551719 * ITM_AMU	isotope mass
ITM_MASS_Sc_47	46.9524075 * ITM_AMU	isotope mass
ITM_MASS_Sc_48	47.952231 * ITM_AMU	isotope mass
ITM_MASS_Sc_49	48.950024 * ITM_AMU	isotope mass
ITM_MASS_Sc_50	49.952188 * ITM_AMU	isotope mass
ITM_MASS_Sc_51	50.953603 * ITM_AMU	isotope mass
ITM_MASS_Sc_52	51.95668 * ITM_AMU	isotope mass
ITM_MASS_Sc_53	52.95961 * ITM_AMU	isotope mass
ITM_MASS_Sc_54	53.96326 * ITM_AMU	isotope mass
ITM_MASS_Sc_55	54.96824 * ITM_AMU	isotope mass
ITM_MASS_Sc_56	55.97287 * ITM_AMU	isotope mass
ITM_MASS_Sc_57	56.97779 * ITM_AMU	isotope mass
ITM_MASS_Sc_58	57.98371 * ITM_AMU	isotope mass
ITM_MASS_Sc_59	58.98922 * ITM_AMU	isotope mass
ITM_MASS_Sc_60	59.99571 * ITM_AMU	isotope mass
ITM_MASS_Ti_38	38.00977 * ITM_AMU	isotope mass
ITM_MASS_Ti_39	39.00161 * ITM_AMU	isotope mass
ITM_MASS_Ti_40	39.99050 * ITM_AMU	isotope mass
ITM_MASS_Ti_41	40.98315 * ITM_AMU	isotope mass
ITM_MASS_Ti_42	41.973031 * ITM_AMU	isotope mass
ITM_MASS_Ti_43	42.968522 * ITM_AMU	isotope mass
ITM_MASS_Ti_44	43.9596901 * ITM_AMU	isotope mass
ITM_MASS_Ti_45	44.9581256 * ITM_AMU	isotope mass
ITM_MASS_Ti_46	45.9526316 * ITM_AMU	isotope mass
ITM_MASS_Ti_47	46.9517631 * ITM_AMU	isotope mass
ITM_MASS_Ti_48	47.9479463 * ITM_AMU	isotope mass
ITM_MASS_Ti_49	48.9478700 * ITM_AMU	isotope mass
ITM_MASS_Ti_50	49.9447912 * ITM_AMU	isotope mass
ITM_MASS_Ti_51	50.9466150 * ITM_AMU	isotope mass
ITM_MASS_Ti_52	51.946897 * ITM_AMU	isotope mass
ITM_MASS_Ti_53	52.94973 * ITM_AMU	isotope mass
ITM_MASS_Ti_54	53.95105 * ITM_AMU	isotope mass
ITM_MASS_Ti_55	54.95527 * ITM_AMU	isotope mass
ITM_MASS_Ti_56	55.95820 * ITM_AMU	isotope mass
ITM_MASS_Ti_57	56.96399 * ITM_AMU	isotope mass
ITM_MASS_Ti_58	57.96697 * ITM_AMU	isotope mass
ITM_MASS_Ti_59	58.97293 * ITM_AMU	isotope mass
ITM_MASS_Ti_60	59.97676 * ITM_AMU	isotope mass
ITM_MASS_Ti_61	60.98320 * ITM_AMU	isotope mass
ITM_MASS_Ti_62	61.98749 * ITM_AMU	isotope mass
ITM_MASS_Ti_63	62.99442 * ITM_AMU	isotope mass
ITM_MASS_V_40	40.01109 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_V_41	40.99978 * ITM_AMU	isotope mass
ITM_MASS_V_42	41.99123 * ITM_AMU	isotope mass
ITM_MASS_V_43	42.98065 * ITM_AMU	isotope mass
ITM_MASS_V_44	43.97411 * ITM_AMU	isotope mass
ITM_MASS_V_45	44.965776 * ITM_AMU	isotope mass
ITM_MASS_V_46	45.9602005 * ITM_AMU	isotope mass
ITM_MASS_V_47	46.9549089 * ITM_AMU	isotope mass
ITM_MASS_V_48	47.9522537 * ITM_AMU	isotope mass
ITM_MASS_V_49	48.9485161 * ITM_AMU	isotope mass
ITM_MASS_V_50	49.9471585 * ITM_AMU	isotope mass
ITM_MASS_V_51	50.9439595 * ITM_AMU	isotope mass
ITM_MASS_V_52	51.9447755 * ITM_AMU	isotope mass
ITM_MASS_V_53	52.944338 * ITM_AMU	isotope mass
ITM_MASS_V_54	53.946440 * ITM_AMU	isotope mass
ITM_MASS_V_55	54.94723 * ITM_AMU	isotope mass
ITM_MASS_V_56	55.95053 * ITM_AMU	isotope mass
ITM_MASS_V_57	56.95256 * ITM_AMU	isotope mass
ITM_MASS_V_58	57.95683 * ITM_AMU	isotope mass
ITM_MASS_V_59	58.96021 * ITM_AMU	isotope mass
ITM_MASS_V_60	59.96503 * ITM_AMU	isotope mass
ITM_MASS_V_61	60.96848 * ITM_AMU	isotope mass
ITM_MASS_V_62	61.97378 * ITM_AMU	isotope mass
ITM_MASS_V_63	62.97755 * ITM_AMU	isotope mass
ITM_MASS_V_64	63.98347 * ITM_AMU	isotope mass
ITM_MASS_V_65	64.98792 * ITM_AMU	isotope mass
ITM_MASS_Cr_42	42.00643 * ITM_AMU	isotope mass
ITM_MASS_Cr_43	42.99771 * ITM_AMU	isotope mass
ITM_MASS_Cr_44	43.985550 * ITM_AMU	isotope mass
ITM_MASS_Cr_45	44.97964 * ITM_AMU	isotope mass
ITM_MASS_Cr_46	45.968359 * ITM_AMU	isotope mass
ITM_MASS_Cr_47	46.962900 * ITM_AMU	isotope mass
ITM_MASS_Cr_48	47.954032 * ITM_AMU	isotope mass
ITM_MASS_Cr_49	48.9513357 * ITM_AMU	isotope mass
ITM_MASS_Cr_50	49.9460442 * ITM_AMU	isotope mass
ITM_MASS_Cr_51	50.9447674 * ITM_AMU	isotope mass
ITM_MASS_Cr_52	51.9405075 * ITM_AMU	isotope mass
ITM_MASS_Cr_53	52.9406494 * ITM_AMU	isotope mass
ITM_MASS_Cr_54	53.9388804 * ITM_AMU	isotope mass
ITM_MASS_Cr_55	54.9408397 * ITM_AMU	isotope mass
ITM_MASS_Cr_56	55.9406531 * ITM_AMU	isotope mass
ITM_MASS_Cr_57	56.9436130 * ITM_AMU	isotope mass
ITM_MASS_Cr_58	57.94435 * ITM_AMU	isotope mass
ITM_MASS_Cr_59	58.94859 * ITM_AMU	isotope mass
ITM_MASS_Cr_60	59.95008 * ITM_AMU	isotope mass
ITM_MASS_Cr_61	60.95472 * ITM_AMU	isotope mass
ITM_MASS_Cr_62	61.95661 * ITM_AMU	isotope mass
ITM_MASS_Cr_63	62.96186 * ITM_AMU	isotope mass
ITM_MASS_Cr_64	63.96441 * ITM_AMU	isotope mass
ITM_MASS_Cr_65	64.97016 * ITM_AMU	isotope mass
ITM_MASS_Cr_66	65.97338 * ITM_AMU	isotope mass
ITM_MASS_Cr_67	66.97955 * ITM_AMU	isotope mass
ITM_MASS_Mn_44	44.00687 * ITM_AMU	isotope mass
ITM_MASS_Mn_45	44.99451 * ITM_AMU	isotope mass
ITM_MASS_Mn_46	45.98672 * ITM_AMU	isotope mass
ITM_MASS_Mn_47	46.97610 * ITM_AMU	isotope mass
ITM_MASS_Mn_48	47.96852 * ITM_AMU	isotope mass
ITM_MASS_Mn_49	48.959618 * ITM_AMU	isotope mass
ITM_MASS_Mn_50	49.9542382 * ITM_AMU	isotope mass
ITM_MASS_Mn_51	50.9482108 * ITM_AMU	isotope mass
ITM_MASS_Mn_52	51.9455655 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Mn_53	52.9412901 * ITM_AMU	isotope mass
ITM_MASS_Mn_54	53.9403589 * ITM_AMU	isotope mass
ITM_MASS_Mn_55	54.9380451 * ITM_AMU	isotope mass
ITM_MASS_Mn_56	55.9389049 * ITM_AMU	isotope mass
ITM_MASS_Mn_57	56.9382854 * ITM_AMU	isotope mass
ITM_MASS_Mn_58	57.939980 * ITM_AMU	isotope mass
ITM_MASS_Mn_59	58.940440 * ITM_AMU	isotope mass
ITM_MASS_Mn_60	59.942910 * ITM_AMU	isotope mass
ITM_MASS_Mn_61	60.94465 * ITM_AMU	isotope mass
ITM_MASS_Mn_62	61.94843 * ITM_AMU	isotope mass
ITM_MASS_Mn_63	62.95024 * ITM_AMU	isotope mass
ITM_MASS_Mn_64	63.95425 * ITM_AMU	isotope mass
ITM_MASS_Mn_65	64.95634 * ITM_AMU	isotope mass
ITM_MASS_Mn_66	65.96108 * ITM_AMU	isotope mass
ITM_MASS_Mn_67	66.96414 * ITM_AMU	isotope mass
ITM_MASS_Mn_68	67.96930 * ITM_AMU	isotope mass
ITM_MASS_Mn_69	68.97284 * ITM_AMU	isotope mass
ITM_MASS_Fe_45	45.01458 * ITM_AMU	isotope mass
ITM_MASS_Fe_46	46.00081 * ITM_AMU	isotope mass
ITM_MASS_Fe_47	46.99289 * ITM_AMU	isotope mass
ITM_MASS_Fe_48	47.980500 * ITM_AMU	isotope mass
ITM_MASS_Fe_49	48.97361 * ITM_AMU	isotope mass
ITM_MASS_Fe_50	49.962990 * ITM_AMU	isotope mass
ITM_MASS_Fe_51	50.956820 * ITM_AMU	isotope mass
ITM_MASS_Fe_52	51.948114 * ITM_AMU	isotope mass
ITM_MASS_Fe_53	52.9453079 * ITM_AMU	isotope mass
ITM_MASS_Fe_54	53.9396105 * ITM_AMU	isotope mass
ITM_MASS_Fe_55	54.9382934 * ITM_AMU	isotope mass
ITM_MASS_Fe_56	55.9349375 * ITM_AMU	isotope mass
ITM_MASS_Fe_57	56.9353940 * ITM_AMU	isotope mass
ITM_MASS_Fe_58	57.9332756 * ITM_AMU	isotope mass
ITM_MASS_Fe_59	58.9348755 * ITM_AMU	isotope mass
ITM_MASS_Fe_60	59.934072 * ITM_AMU	isotope mass
ITM_MASS_Fe_61	60.936745 * ITM_AMU	isotope mass
ITM_MASS_Fe_62	61.936767 * ITM_AMU	isotope mass
ITM_MASS_Fe_63	62.94037 * ITM_AMU	isotope mass
ITM_MASS_Fe_64	63.94120 * ITM_AMU	isotope mass
ITM_MASS_Fe_65	64.94538 * ITM_AMU	isotope mass
ITM_MASS_Fe_66	65.94678 * ITM_AMU	isotope mass
ITM_MASS_Fe_67	66.95095 * ITM_AMU	isotope mass
ITM_MASS_Fe_68	67.95370 * ITM_AMU	isotope mass
ITM_MASS_Fe_69	68.95878 * ITM_AMU	isotope mass
ITM_MASS_Fe_70	69.96146 * ITM_AMU	isotope mass
ITM_MASS_Fe_71	70.96672 * ITM_AMU	isotope mass
ITM_MASS_Fe_72	71.96962 * ITM_AMU	isotope mass
ITM_MASS_Co_47	47.01149 * ITM_AMU	isotope mass
ITM_MASS_Co_48	48.00176 * ITM_AMU	isotope mass
ITM_MASS_Co_49	48.98972 * ITM_AMU	isotope mass
ITM_MASS_Co_50	49.98154 * ITM_AMU	isotope mass
ITM_MASS_Co_51	50.97072 * ITM_AMU	isotope mass
ITM_MASS_Co_52	51.963590 * ITM_AMU	isotope mass
ITM_MASS_Co_53	52.954219 * ITM_AMU	isotope mass
ITM_MASS_Co_54	53.9484596 * ITM_AMU	isotope mass
ITM_MASS_Co_55	54.9419990 * ITM_AMU	isotope mass
ITM_MASS_Co_56	55.9398393 * ITM_AMU	isotope mass
ITM_MASS_Co_57	56.9362914 * ITM_AMU	isotope mass
ITM_MASS_Co_58	57.9357528 * ITM_AMU	isotope mass
ITM_MASS_Co_59	58.9331950 * ITM_AMU	isotope mass
ITM_MASS_Co_60	59.9338171 * ITM_AMU	isotope mass
ITM_MASS_Co_61	60.9324758 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Co_62	61.934051 * ITM_AMU	isotope mass
ITM_MASS_Co_63	62.933612 * ITM_AMU	isotope mass
ITM_MASS_Co_64	63.935810 * ITM_AMU	isotope mass
ITM_MASS_Co_65	64.936478 * ITM_AMU	isotope mass
ITM_MASS_Co_66	65.93976 * ITM_AMU	isotope mass
ITM_MASS_Co_67	66.94089 * ITM_AMU	isotope mass
ITM_MASS_Co_68	67.94487 * ITM_AMU	isotope mass
ITM_MASS_Co_69	68.94632 * ITM_AMU	isotope mass
ITM_MASS_Co_70	69.95100 * ITM_AMU	isotope mass
ITM_MASS_Co_71	70.95290 * ITM_AMU	isotope mass
ITM_MASS_Co_72	71.95781 * ITM_AMU	isotope mass
ITM_MASS_Co_73	72.96024 * ITM_AMU	isotope mass
ITM_MASS_Co_74	73.96538 * ITM_AMU	isotope mass
ITM_MASS_Co_75	74.96833 * ITM_AMU	isotope mass
ITM_MASS_Ni_48	48.01975 * ITM_AMU	isotope mass
ITM_MASS_Ni_49	49.00966 * ITM_AMU	isotope mass
ITM_MASS_Ni_50	49.99593 * ITM_AMU	isotope mass
ITM_MASS_Ni_51	50.98772 * ITM_AMU	isotope mass
ITM_MASS_Ni_52	51.975680 * ITM_AMU	isotope mass
ITM_MASS_Ni_53	52.96847 * ITM_AMU	isotope mass
ITM_MASS_Ni_54	53.957910 * ITM_AMU	isotope mass
ITM_MASS_Ni_55	54.951330 * ITM_AMU	isotope mass
ITM_MASS_Ni_56	55.942132 * ITM_AMU	isotope mass
ITM_MASS_Ni_57	56.9397935 * ITM_AMU	isotope mass
ITM_MASS_Ni_58	57.9353429 * ITM_AMU	isotope mass
ITM_MASS_Ni_59	58.9343467 * ITM_AMU	isotope mass
ITM_MASS_Ni_60	59.9307864 * ITM_AMU	isotope mass
ITM_MASS_Ni_61	60.9310560 * ITM_AMU	isotope mass
ITM_MASS_Ni_62	61.9283451 * ITM_AMU	isotope mass
ITM_MASS_Ni_63	62.9296694 * ITM_AMU	isotope mass
ITM_MASS_Ni_64	63.9279660 * ITM_AMU	isotope mass
ITM_MASS_Ni_65	64.9300843 * ITM_AMU	isotope mass
ITM_MASS_Ni_66	65.9291393 * ITM_AMU	isotope mass
ITM_MASS_Ni_67	66.931569 * ITM_AMU	isotope mass
ITM_MASS_Ni_68	67.931869 * ITM_AMU	isotope mass
ITM_MASS_Ni_69	68.935610 * ITM_AMU	isotope mass
ITM_MASS_Ni_70	69.93650 * ITM_AMU	isotope mass
ITM_MASS_Ni_71	70.94074 * ITM_AMU	isotope mass
ITM_MASS_Ni_72	71.94209 * ITM_AMU	isotope mass
ITM_MASS_Ni_73	72.94647 * ITM_AMU	isotope mass
ITM_MASS_Ni_74	73.94807 * ITM_AMU	isotope mass
ITM_MASS_Ni_75	74.95287 * ITM_AMU	isotope mass
ITM_MASS_Ni_76	75.95533 * ITM_AMU	isotope mass
ITM_MASS_Ni_77	76.96055 * ITM_AMU	isotope mass
ITM_MASS_Ni_78	77.96318 * ITM_AMU	isotope mass
ITM_MASS_Cu_52	51.99718 * ITM_AMU	isotope mass
ITM_MASS_Cu_53	52.98555 * ITM_AMU	isotope mass
ITM_MASS_Cu_54	53.97671 * ITM_AMU	isotope mass
ITM_MASS_Cu_55	54.96605 * ITM_AMU	isotope mass
ITM_MASS_Cu_56	55.95856 * ITM_AMU	isotope mass
ITM_MASS_Cu_57	56.949211 * ITM_AMU	isotope mass
ITM_MASS_Cu_58	57.9445385 * ITM_AMU	isotope mass
ITM_MASS_Cu_59	58.9394980 * ITM_AMU	isotope mass
ITM_MASS_Cu_60	59.9373650 * ITM_AMU	isotope mass
ITM_MASS_Cu_61	60.9334578 * ITM_AMU	isotope mass
ITM_MASS_Cu_62	61.932584 * ITM_AMU	isotope mass
ITM_MASS_Cu_63	62.9295975 * ITM_AMU	isotope mass
ITM_MASS_Cu_64	63.9297642 * ITM_AMU	isotope mass
ITM_MASS_Cu_65	64.9277895 * ITM_AMU	isotope mass
ITM_MASS_Cu_66	65.9288688 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Cu_67	66.9277303 * ITM_AMU	isotope mass
ITM_MASS_Cu_68	67.9296109 * ITM_AMU	isotope mass
ITM_MASS_Cu_69	68.9294293 * ITM_AMU	isotope mass
ITM_MASS_Cu_70	69.9323923 * ITM_AMU	isotope mass
ITM_MASS_Cu_71	70.9326768 * ITM_AMU	isotope mass
ITM_MASS_Cu_72	71.9358203 * ITM_AMU	isotope mass
ITM_MASS_Cu_73	72.936675 * ITM_AMU	isotope mass
ITM_MASS_Cu_74	73.939875 * ITM_AMU	isotope mass
ITM_MASS_Cu_75	74.94190 * ITM_AMU	isotope mass
ITM_MASS_Cu_76	75.945275 * ITM_AMU	isotope mass
ITM_MASS_Cu_77	76.94785 * ITM_AMU	isotope mass
ITM_MASS_Cu_78	77.95196 * ITM_AMU	isotope mass
ITM_MASS_Cu_79	78.95456 * ITM_AMU	isotope mass
ITM_MASS_Cu_80	79.96087 * ITM_AMU	isotope mass
ITM_MASS_Zn_54	53.99295 * ITM_AMU	isotope mass
ITM_MASS_Zn_55	54.98398 * ITM_AMU	isotope mass
ITM_MASS_Zn_56	55.97238 * ITM_AMU	isotope mass
ITM_MASS_Zn_57	56.96479 * ITM_AMU	isotope mass
ITM_MASS_Zn_58	57.954590 * ITM_AMU	isotope mass
ITM_MASS_Zn_59	58.949260 * ITM_AMU	isotope mass
ITM_MASS_Zn_60	59.941827 * ITM_AMU	isotope mass
ITM_MASS_Zn_61	60.939511 * ITM_AMU	isotope mass
ITM_MASS_Zn_62	61.934330 * ITM_AMU	isotope mass
ITM_MASS_Zn_63	62.9332116 * ITM_AMU	isotope mass
ITM_MASS_Zn_64	63.9291422 * ITM_AMU	isotope mass
ITM_MASS_Zn_65	64.9292410 * ITM_AMU	isotope mass
ITM_MASS_Zn_66	65.9260334 * ITM_AMU	isotope mass
ITM_MASS_Zn_67	66.9271273 * ITM_AMU	isotope mass
ITM_MASS_Zn_68	67.9248442 * ITM_AMU	isotope mass
ITM_MASS_Zn_69	68.9265503 * ITM_AMU	isotope mass
ITM_MASS_Zn_70	69.9253193 * ITM_AMU	isotope mass
ITM_MASS_Zn_71	70.927722 * ITM_AMU	isotope mass
ITM_MASS_Zn_72	71.926858 * ITM_AMU	isotope mass
ITM_MASS_Zn_73	72.929780 * ITM_AMU	isotope mass
ITM_MASS_Zn_74	73.929460 * ITM_AMU	isotope mass
ITM_MASS_Zn_75	74.932940 * ITM_AMU	isotope mass
ITM_MASS_Zn_76	75.933290 * ITM_AMU	isotope mass
ITM_MASS_Zn_77	76.93696 * ITM_AMU	isotope mass
ITM_MASS_Zn_78	77.93844 * ITM_AMU	isotope mass
ITM_MASS_Zn_79	78.94265 * ITM_AMU	isotope mass
ITM_MASS_Zn_80	79.94434 * ITM_AMU	isotope mass
ITM_MASS_Zn_81	80.95048 * ITM_AMU	isotope mass
ITM_MASS_Zn_82	81.95442 * ITM_AMU	isotope mass
ITM_MASS_Zn_83	82.96103 * ITM_AMU	isotope mass
ITM_MASS_Ga_56	55.99491 * ITM_AMU	isotope mass
ITM_MASS_Ga_57	56.98293 * ITM_AMU	isotope mass
ITM_MASS_Ga_58	57.97425 * ITM_AMU	isotope mass
ITM_MASS_Ga_59	58.96337 * ITM_AMU	isotope mass
ITM_MASS_Ga_60	59.95706 * ITM_AMU	isotope mass
ITM_MASS_Ga_61	60.949450 * ITM_AMU	isotope mass
ITM_MASS_Ga_62	61.944175 * ITM_AMU	isotope mass
ITM_MASS_Ga_63	62.9392942 * ITM_AMU	isotope mass
ITM_MASS_Ga_64	63.9368387 * ITM_AMU	isotope mass
ITM_MASS_Ga_65	64.9327348 * ITM_AMU	isotope mass
ITM_MASS_Ga_66	65.931589 * ITM_AMU	isotope mass
ITM_MASS_Ga_67	66.9282017 * ITM_AMU	isotope mass
ITM_MASS_Ga_68	67.9279801 * ITM_AMU	isotope mass
ITM_MASS_Ga_69	68.9255736 * ITM_AMU	isotope mass
ITM_MASS_Ga_70	69.9260220 * ITM_AMU	isotope mass
ITM_MASS_Ga_71	70.9247013 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ga_72	71.9263663 * ITM_AMU	isotope mass
ITM_MASS_Ga_73	72.9251747 * ITM_AMU	isotope mass
ITM_MASS_Ga_74	73.926946 * ITM_AMU	isotope mass
ITM_MASS_Ga_75	74.9265002 * ITM_AMU	isotope mass
ITM_MASS_Ga_76	75.9288276 * ITM_AMU	isotope mass
ITM_MASS_Ga_77	76.9291543 * ITM_AMU	isotope mass
ITM_MASS_Ga_78	77.9316082 * ITM_AMU	isotope mass
ITM_MASS_Ga_79	78.93289 * ITM_AMU	isotope mass
ITM_MASS_Ga_80	79.93652 * ITM_AMU	isotope mass
ITM_MASS_Ga_81	80.93775 * ITM_AMU	isotope mass
ITM_MASS_Ga_82	81.94299 * ITM_AMU	isotope mass
ITM_MASS_Ga_83	82.94698 * ITM_AMU	isotope mass
ITM_MASS_Ga_84	83.95265 * ITM_AMU	isotope mass
ITM_MASS_Ga_85	84.95700 * ITM_AMU	isotope mass
ITM_MASS_Ga_86	85.96312 * ITM_AMU	isotope mass
ITM_MASS_Ge_58	57.99101 * ITM_AMU	isotope mass
ITM_MASS_Ge_59	58.98175 * ITM_AMU	isotope mass
ITM_MASS_Ge_60	59.97019 * ITM_AMU	isotope mass
ITM_MASS_Ge_61	60.96379 * ITM_AMU	isotope mass
ITM_MASS_Ge_62	61.95465 * ITM_AMU	isotope mass
ITM_MASS_Ge_63	62.94964 * ITM_AMU	isotope mass
ITM_MASS_Ge_64	63.941650 * ITM_AMU	isotope mass
ITM_MASS_Ge_65	64.93944 * ITM_AMU	isotope mass
ITM_MASS_Ge_66	65.933840 * ITM_AMU	isotope mass
ITM_MASS_Ge_67	66.932734 * ITM_AMU	isotope mass
ITM_MASS_Ge_68	67.928094 * ITM_AMU	isotope mass
ITM_MASS_Ge_69	68.9279645 * ITM_AMU	isotope mass
ITM_MASS_Ge_70	69.9242474 * ITM_AMU	isotope mass
ITM_MASS_Ge_71	70.9249510 * ITM_AMU	isotope mass
ITM_MASS_Ge_72	71.9220758 * ITM_AMU	isotope mass
ITM_MASS_Ge_73	72.9234589 * ITM_AMU	isotope mass
ITM_MASS_Ge_74	73.9211778 * ITM_AMU	isotope mass
ITM_MASS_Ge_75	74.9228589 * ITM_AMU	isotope mass
ITM_MASS_Ge_76	75.9214026 * ITM_AMU	isotope mass
ITM_MASS_Ge_77	76.9235486 * ITM_AMU	isotope mass
ITM_MASS_Ge_78	77.922853 * ITM_AMU	isotope mass
ITM_MASS_Ge_79	78.92540 * ITM_AMU	isotope mass
ITM_MASS_Ge_80	79.925370 * ITM_AMU	isotope mass
ITM_MASS_Ge_81	80.92882 * ITM_AMU	isotope mass
ITM_MASS_Ge_82	81.92955 * ITM_AMU	isotope mass
ITM_MASS_Ge_83	82.93462 * ITM_AMU	isotope mass
ITM_MASS_Ge_84	83.93747 * ITM_AMU	isotope mass
ITM_MASS_Ge_85	84.94303 * ITM_AMU	isotope mass
ITM_MASS_Ge_86	85.94649 * ITM_AMU	isotope mass
ITM_MASS_Ge_87	86.95251 * ITM_AMU	isotope mass
ITM_MASS_Ge_88	87.95691 * ITM_AMU	isotope mass
ITM_MASS_Ge_89	88.96383 * ITM_AMU	isotope mass
ITM_MASS_As_60	59.99313 * ITM_AMU	isotope mass
ITM_MASS_As_61	60.98062 * ITM_AMU	isotope mass
ITM_MASS_As_62	61.97320 * ITM_AMU	isotope mass
ITM_MASS_As_63	62.96369 * ITM_AMU	isotope mass
ITM_MASS_As_64	63.95757 * ITM_AMU	isotope mass
ITM_MASS_As_65	64.94956 * ITM_AMU	isotope mass
ITM_MASS_As_66	65.94471 * ITM_AMU	isotope mass
ITM_MASS_As_67	66.93919 * ITM_AMU	isotope mass
ITM_MASS_As_68	67.936770 * ITM_AMU	isotope mass
ITM_MASS_As_69	68.932270 * ITM_AMU	isotope mass
ITM_MASS_As_70	69.930920 * ITM_AMU	isotope mass
ITM_MASS_As_71	70.927112 * ITM_AMU	isotope mass
ITM_MASS_As_72	71.926752 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_As_73	72.923825 * ITM_AMU	isotope mass
ITM_MASS_As_74	73.9239287 * ITM_AMU	isotope mass
ITM_MASS_As_75	74.9215965 * ITM_AMU	isotope mass
ITM_MASS_As_76	75.9223940 * ITM_AMU	isotope mass
ITM_MASS_As_77	76.9206473 * ITM_AMU	isotope mass
ITM_MASS_As_78	77.921827 * ITM_AMU	isotope mass
ITM_MASS_As_79	78.920948 * ITM_AMU	isotope mass
ITM_MASS_As_80	79.922534 * ITM_AMU	isotope mass
ITM_MASS_As_81	80.922132 * ITM_AMU	isotope mass
ITM_MASS_As_82	81.92450 * ITM_AMU	isotope mass
ITM_MASS_As_83	82.92498 * ITM_AMU	isotope mass
ITM_MASS_As_84	83.92906 * ITM_AMU	isotope mass
ITM_MASS_As_85	84.93202 * ITM_AMU	isotope mass
ITM_MASS_As_86	85.93650 * ITM_AMU	isotope mass
ITM_MASS_As_87	86.93990 * ITM_AMU	isotope mass
ITM_MASS_As_88	87.94494 * ITM_AMU	isotope mass
ITM_MASS_As_89	88.94939 * ITM_AMU	isotope mass
ITM_MASS_As_90	89.95550 * ITM_AMU	isotope mass
ITM_MASS_As_91	90.96043 * ITM_AMU	isotope mass
ITM_MASS_As_92	91.96680 * ITM_AMU	isotope mass
ITM_MASS_Se_65	64.96466 * ITM_AMU	isotope mass
ITM_MASS_Se_66	65.95521 * ITM_AMU	isotope mass
ITM_MASS_Se_67	66.95009 * ITM_AMU	isotope mass
ITM_MASS_Se_68	67.941800 * ITM_AMU	isotope mass
ITM_MASS_Se_69	68.939560 * ITM_AMU	isotope mass
ITM_MASS_Se_70	69.933390 * ITM_AMU	isotope mass
ITM_MASS_Se_71	70.932240 * ITM_AMU	isotope mass
ITM_MASS_Se_72	71.927112 * ITM_AMU	isotope mass
ITM_MASS_Se_73	72.926765 * ITM_AMU	isotope mass
ITM_MASS_Se_74	73.9224764 * ITM_AMU	isotope mass
ITM_MASS_Se_75	74.9225234 * ITM_AMU	isotope mass
ITM_MASS_Se_76	75.9192136 * ITM_AMU	isotope mass
ITM_MASS_Se_77	76.9199140 * ITM_AMU	isotope mass
ITM_MASS_Se_78	77.9173091 * ITM_AMU	isotope mass
ITM_MASS_Se_79	78.9184991 * ITM_AMU	isotope mass
ITM_MASS_Se_80	79.9165213 * ITM_AMU	isotope mass
ITM_MASS_Se_81	80.9179925 * ITM_AMU	isotope mass
ITM_MASS_Se_82	81.9166994 * ITM_AMU	isotope mass
ITM_MASS_Se_83	82.919118 * ITM_AMU	isotope mass
ITM_MASS_Se_84	83.918462 * ITM_AMU	isotope mass
ITM_MASS_Se_85	84.922250 * ITM_AMU	isotope mass
ITM_MASS_Se_86	85.924272 * ITM_AMU	isotope mass
ITM_MASS_Se_87	86.928520 * ITM_AMU	isotope mass
ITM_MASS_Se_88	87.931420 * ITM_AMU	isotope mass
ITM_MASS_Se_89	88.93645 * ITM_AMU	isotope mass
ITM_MASS_Se_90	89.93996 * ITM_AMU	isotope mass
ITM_MASS_Se_91	90.94596 * ITM_AMU	isotope mass
ITM_MASS_Se_92	91.94992 * ITM_AMU	isotope mass
ITM_MASS_Se_93	92.95629 * ITM_AMU	isotope mass
ITM_MASS_Se_94	93.96049 * ITM_AMU	isotope mass
ITM_MASS_Br_67	66.96479 * ITM_AMU	isotope mass
ITM_MASS_Br_68	67.95852 * ITM_AMU	isotope mass
ITM_MASS_Br_69	68.95011 * ITM_AMU	isotope mass
ITM_MASS_Br_70	69.94479 * ITM_AMU	isotope mass
ITM_MASS_Br_71	70.93874 * ITM_AMU	isotope mass
ITM_MASS_Br_72	71.936640 * ITM_AMU	isotope mass
ITM_MASS_Br_73	72.931690 * ITM_AMU	isotope mass
ITM_MASS_Br_74	73.929891 * ITM_AMU	isotope mass
ITM_MASS_Br_75	74.925776 * ITM_AMU	isotope mass
ITM_MASS_Br_76	75.924541 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Br_77	76.921379 * ITM_AMU	isotope mass
ITM_MASS_Br_78	77.921146 * ITM_AMU	isotope mass
ITM_MASS_Br_79	78.9183371 * ITM_AMU	isotope mass
ITM_MASS_Br_80	79.9185293 * ITM_AMU	isotope mass
ITM_MASS_Br_81	80.9162906 * ITM_AMU	isotope mass
ITM_MASS_Br_82	81.9168041 * ITM_AMU	isotope mass
ITM_MASS_Br_83	82.915180 * ITM_AMU	isotope mass
ITM_MASS_Br_84	83.916479 * ITM_AMU	isotope mass
ITM_MASS_Br_85	84.915608 * ITM_AMU	isotope mass
ITM_MASS_Br_86	85.918798 * ITM_AMU	isotope mass
ITM_MASS_Br_87	86.920711 * ITM_AMU	isotope mass
ITM_MASS_Br_88	87.924070 * ITM_AMU	isotope mass
ITM_MASS_Br_89	88.926390 * ITM_AMU	isotope mass
ITM_MASS_Br_90	89.930630 * ITM_AMU	isotope mass
ITM_MASS_Br_91	90.933970 * ITM_AMU	isotope mass
ITM_MASS_Br_92	91.939260 * ITM_AMU	isotope mass
ITM_MASS_Br_93	92.94305 * ITM_AMU	isotope mass
ITM_MASS_Br_94	93.94868 * ITM_AMU	isotope mass
ITM_MASS_Br_95	94.95287 * ITM_AMU	isotope mass
ITM_MASS_Br_96	95.95853 * ITM_AMU	isotope mass
ITM_MASS_Br_97	96.96280 * ITM_AMU	isotope mass
ITM_MASS_Kr_69	68.96518 * ITM_AMU	isotope mass
ITM_MASS_Kr_70	69.95526 * ITM_AMU	isotope mass
ITM_MASS_Kr_71	70.94963 * ITM_AMU	isotope mass
ITM_MASS_Kr_72	71.942092 * ITM_AMU	isotope mass
ITM_MASS_Kr_73	72.939289 * ITM_AMU	isotope mass
ITM_MASS_Kr_74	73.9330844 * ITM_AMU	isotope mass
ITM_MASS_Kr_75	74.930946 * ITM_AMU	isotope mass
ITM_MASS_Kr_76	75.925910 * ITM_AMU	isotope mass
ITM_MASS_Kr_77	76.9246700 * ITM_AMU	isotope mass
ITM_MASS_Kr_78	77.9203648 * ITM_AMU	isotope mass
ITM_MASS_Kr_79	78.920082 * ITM_AMU	isotope mass
ITM_MASS_Kr_80	79.9163790 * ITM_AMU	isotope mass
ITM_MASS_Kr_81	80.9165920 * ITM_AMU	isotope mass
ITM_MASS_Kr_82	81.9134836 * ITM_AMU	isotope mass
ITM_MASS_Kr_83	82.914136 * ITM_AMU	isotope mass
ITM_MASS_Kr_84	83.911507 * ITM_AMU	isotope mass
ITM_MASS_Kr_85	84.9125273 * ITM_AMU	isotope mass
ITM_MASS_Kr_86	85.91061073 * ITM_AMU	isotope mass
ITM_MASS_Kr_87	86.91335486 * ITM_AMU	isotope mass
ITM_MASS_Kr_88	87.914447 * ITM_AMU	isotope mass
ITM_MASS_Kr_89	88.917630 * ITM_AMU	isotope mass
ITM_MASS_Kr_90	89.919517 * ITM_AMU	isotope mass
ITM_MASS_Kr_91	90.923450 * ITM_AMU	isotope mass
ITM_MASS_Kr_92	91.926156 * ITM_AMU	isotope mass
ITM_MASS_Kr_93	92.93127 * ITM_AMU	isotope mass
ITM_MASS_Kr_94	93.93436 * ITM_AMU	isotope mass
ITM_MASS_Kr_95	94.93984 * ITM_AMU	isotope mass
ITM_MASS_Kr_96	95.94307 * ITM_AMU	isotope mass
ITM_MASS_Kr_97	96.94856 * ITM_AMU	isotope mass
ITM_MASS_Kr_98	97.95191 * ITM_AMU	isotope mass
ITM_MASS_Kr_99	98.95760 * ITM_AMU	isotope mass
ITM_MASS_Kr_100	99.96114 * ITM_AMU	isotope mass
ITM_MASS_Rb_71	70.96532 * ITM_AMU	isotope mass
ITM_MASS_Rb_72	71.95908 * ITM_AMU	isotope mass
ITM_MASS_Rb_73	72.95056 * ITM_AMU	isotope mass
ITM_MASS_Rb_74	73.944265 * ITM_AMU	isotope mass
ITM_MASS_Rb_75	74.938570 * ITM_AMU	isotope mass
ITM_MASS_Rb_76	75.9350722 * ITM_AMU	isotope mass
ITM_MASS_Rb_77	76.930408 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Rb_78	77.928141 * ITM_AMU	isotope mass
ITM_MASS_Rb_79	78.923989 * ITM_AMU	isotope mass
ITM_MASS_Rb_80	79.922519 * ITM_AMU	isotope mass
ITM_MASS_Rb_81	80.918996 * ITM_AMU	isotope mass
ITM_MASS_Rb_82	81.9182086 * ITM_AMU	isotope mass
ITM_MASS_Rb_83	82.915110 * ITM_AMU	isotope mass
ITM_MASS_Rb_84	83.914385 * ITM_AMU	isotope mass
ITM_MASS_Rb_85	84.911789738 * ITM_AMU	isotope mass
ITM_MASS_Rb_86	85.91116742 * ITM_AMU	isotope mass
ITM_MASS_Rb_87	86.909180527 * ITM_AMU	isotope mass
ITM_MASS_Rb_88	87.91131559 * ITM_AMU	isotope mass
ITM_MASS_Rb_89	88.912278 * ITM_AMU	isotope mass
ITM_MASS_Rb_90	89.914802 * ITM_AMU	isotope mass
ITM_MASS_Rb_91	90.916537 * ITM_AMU	isotope mass
ITM_MASS_Rb_92	91.919729 * ITM_AMU	isotope mass
ITM_MASS_Rb_93	92.922042 * ITM_AMU	isotope mass
ITM_MASS_Rb_94	93.926405 * ITM_AMU	isotope mass
ITM_MASS_Rb_95	94.929303 * ITM_AMU	isotope mass
ITM_MASS_Rb_96	95.934270 * ITM_AMU	isotope mass
ITM_MASS_Rb_97	96.937350 * ITM_AMU	isotope mass
ITM_MASS_Rb_98	97.941790 * ITM_AMU	isotope mass
ITM_MASS_Rb_99	98.94538 * ITM_AMU	isotope mass
ITM_MASS_Rb_100	99.94987 * ITM_AMU	isotope mass
ITM_MASS_Rb_101	100.95320 * ITM_AMU	isotope mass
ITM_MASS_Rb_102	101.95887 * ITM_AMU	isotope mass
ITM_MASS_Sr_73	72.96597 * ITM_AMU	isotope mass
ITM_MASS_Sr_74	73.95631 * ITM_AMU	isotope mass
ITM_MASS_Sr_75	74.94995 * ITM_AMU	isotope mass
ITM_MASS_Sr_76	75.941770 * ITM_AMU	isotope mass
ITM_MASS_Sr_77	76.937945 * ITM_AMU	isotope mass
ITM_MASS_Sr_78	77.932180 * ITM_AMU	isotope mass
ITM_MASS_Sr_79	78.929708 * ITM_AMU	isotope mass
ITM_MASS_Sr_80	79.924521 * ITM_AMU	isotope mass
ITM_MASS_Sr_81	80.923212 * ITM_AMU	isotope mass
ITM_MASS_Sr_82	81.918402 * ITM_AMU	isotope mass
ITM_MASS_Sr_83	82.917557 * ITM_AMU	isotope mass
ITM_MASS_Sr_84	83.913425 * ITM_AMU	isotope mass
ITM_MASS_Sr_85	84.912933 * ITM_AMU	isotope mass
ITM_MASS_Sr_86	85.9092602 * ITM_AMU	isotope mass
ITM_MASS_Sr_87	86.9088771 * ITM_AMU	isotope mass
ITM_MASS_Sr_88	87.9056121 * ITM_AMU	isotope mass
ITM_MASS_Sr_89	88.9074507 * ITM_AMU	isotope mass
ITM_MASS_Sr_90	89.907738 * ITM_AMU	isotope mass
ITM_MASS_Sr_91	90.910203 * ITM_AMU	isotope mass
ITM_MASS_Sr_92	91.911038 * ITM_AMU	isotope mass
ITM_MASS_Sr_93	92.914026 * ITM_AMU	isotope mass
ITM_MASS_Sr_94	93.915361 * ITM_AMU	isotope mass
ITM_MASS_Sr_95	94.919359 * ITM_AMU	isotope mass
ITM_MASS_Sr_96	95.921697 * ITM_AMU	isotope mass
ITM_MASS_Sr_97	96.926153 * ITM_AMU	isotope mass
ITM_MASS_Sr_98	97.928453 * ITM_AMU	isotope mass
ITM_MASS_Sr_99	98.933240 * ITM_AMU	isotope mass
ITM_MASS_Sr_100	99.93535 * ITM_AMU	isotope mass
ITM_MASS_Sr_101	100.94052 * ITM_AMU	isotope mass
ITM_MASS_Sr_102	101.94302 * ITM_AMU	isotope mass
ITM_MASS_Sr_103	102.94895 * ITM_AMU	isotope mass
ITM_MASS_Sr_104	103.95233 * ITM_AMU	isotope mass
ITM_MASS_Sr_105	104.95858 * ITM_AMU	isotope mass
ITM_MASS_Y_76	75.95845 * ITM_AMU	isotope mass
ITM_MASS_Y_77	76.949650 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Y_78	77.94361 * ITM_AMU	isotope mass
ITM_MASS_Y_79	78.93735 * ITM_AMU	isotope mass
ITM_MASS_Y_80	79.93428 * ITM_AMU	isotope mass
ITM_MASS_Y_81	80.929130 * ITM_AMU	isotope mass
ITM_MASS_Y_82	81.92679 * ITM_AMU	isotope mass
ITM_MASS_Y_83	82.922350 * ITM_AMU	isotope mass
ITM_MASS_Y_84	83.92039 * ITM_AMU	isotope mass
ITM_MASS_Y_85	84.916433 * ITM_AMU	isotope mass
ITM_MASS_Y_86	85.914886 * ITM_AMU	isotope mass
ITM_MASS_Y_87	86.9108757 * ITM_AMU	isotope mass
ITM_MASS_Y_88	87.9095011 * ITM_AMU	isotope mass
ITM_MASS_Y_89	88.9058483 * ITM_AMU	isotope mass
ITM_MASS_Y_90	89.9071519 * ITM_AMU	isotope mass
ITM_MASS_Y_91	90.907305 * ITM_AMU	isotope mass
ITM_MASS_Y_92	91.908949 * ITM_AMU	isotope mass
ITM_MASS_Y_93	92.909583 * ITM_AMU	isotope mass
ITM_MASS_Y_94	93.911595 * ITM_AMU	isotope mass
ITM_MASS_Y_95	94.912821 * ITM_AMU	isotope mass
ITM_MASS_Y_96	95.915891 * ITM_AMU	isotope mass
ITM_MASS_Y_97	96.918134 * ITM_AMU	isotope mass
ITM_MASS_Y_98	97.922203 * ITM_AMU	isotope mass
ITM_MASS_Y_99	98.924636 * ITM_AMU	isotope mass
ITM_MASS_Y_100	99.927760 * ITM_AMU	isotope mass
ITM_MASS_Y_101	100.93031 * ITM_AMU	isotope mass
ITM_MASS_Y_102	101.933560 * ITM_AMU	isotope mass
ITM_MASS_Y_103	102.93673 * ITM_AMU	isotope mass
ITM_MASS_Y_104	103.94105 * ITM_AMU	isotope mass
ITM_MASS_Y_105	104.94487 * ITM_AMU	isotope mass
ITM_MASS_Y_106	105.94979 * ITM_AMU	isotope mass
ITM_MASS_Y_107	106.95414 * ITM_AMU	isotope mass
ITM_MASS_Y_108	107.95948 * ITM_AMU	isotope mass
ITM_MASS_Zr_78	77.95523 * ITM_AMU	isotope mass
ITM_MASS_Zr_79	78.94916 * ITM_AMU	isotope mass
ITM_MASS_Zr_80	79.94040 * ITM_AMU	isotope mass
ITM_MASS_Zr_81	80.93721 * ITM_AMU	isotope mass
ITM_MASS_Zr_82	81.93109 * ITM_AMU	isotope mass
ITM_MASS_Zr_83	82.92865 * ITM_AMU	isotope mass
ITM_MASS_Zr_84	83.92325 * ITM_AMU	isotope mass
ITM_MASS_Zr_85	84.92147 * ITM_AMU	isotope mass
ITM_MASS_Zr_86	85.916470 * ITM_AMU	isotope mass
ITM_MASS_Zr_87	86.914816 * ITM_AMU	isotope mass
ITM_MASS_Zr_88	87.910227 * ITM_AMU	isotope mass
ITM_MASS_Zr_89	88.908890 * ITM_AMU	isotope mass
ITM_MASS_Zr_90	89.9047044 * ITM_AMU	isotope mass
ITM_MASS_Zr_91	90.9056458 * ITM_AMU	isotope mass
ITM_MASS_Zr_92	91.9050408 * ITM_AMU	isotope mass
ITM_MASS_Zr_93	92.9064760 * ITM_AMU	isotope mass
ITM_MASS_Zr_94	93.9063152 * ITM_AMU	isotope mass
ITM_MASS_Zr_95	94.9080426 * ITM_AMU	isotope mass
ITM_MASS_Zr_96	95.9082734 * ITM_AMU	isotope mass
ITM_MASS_Zr_97	96.9109531 * ITM_AMU	isotope mass
ITM_MASS_Zr_98	97.912735 * ITM_AMU	isotope mass
ITM_MASS_Zr_99	98.916512 * ITM_AMU	isotope mass
ITM_MASS_Zr_100	99.917760 * ITM_AMU	isotope mass
ITM_MASS_Zr_101	100.921140 * ITM_AMU	isotope mass
ITM_MASS_Zr_102	101.922980 * ITM_AMU	isotope mass
ITM_MASS_Zr_103	102.92660 * ITM_AMU	isotope mass
ITM_MASS_Zr_104	103.92878 * ITM_AMU	isotope mass
ITM_MASS_Zr_105	104.93305 * ITM_AMU	isotope mass
ITM_MASS_Zr_106	105.93591 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Zr_107	106.94075 * ITM_AMU	isotope mass
ITM_MASS_Zr_108	107.94396 * ITM_AMU	isotope mass
ITM_MASS_Zr_109	108.94924 * ITM_AMU	isotope mass
ITM_MASS_Zr_110	109.95287 * ITM_AMU	isotope mass
ITM_MASS_Nb_81	80.94903 * ITM_AMU	isotope mass
ITM_MASS_Nb_82	81.94313 * ITM_AMU	isotope mass
ITM_MASS_Nb_83	82.93671 * ITM_AMU	isotope mass
ITM_MASS_Nb_84	83.93357 * ITM_AMU	isotope mass
ITM_MASS_Nb_85	84.92791 * ITM_AMU	isotope mass
ITM_MASS_Nb_86	85.925040 * ITM_AMU	isotope mass
ITM_MASS_Nb_87	86.920360 * ITM_AMU	isotope mass
ITM_MASS_Nb_88	87.91833 * ITM_AMU	isotope mass
ITM_MASS_Nb_89	88.913418 * ITM_AMU	isotope mass
ITM_MASS_Nb_90	89.911265 * ITM_AMU	isotope mass
ITM_MASS_Nb_91	90.906996 * ITM_AMU	isotope mass
ITM_MASS_Nb_92	91.907194 * ITM_AMU	isotope mass
ITM_MASS_Nb_93	92.9063781 * ITM_AMU	isotope mass
ITM_MASS_Nb_94	93.9072839 * ITM_AMU	isotope mass
ITM_MASS_Nb_95	94.9068358 * ITM_AMU	isotope mass
ITM_MASS_Nb_96	95.908101 * ITM_AMU	isotope mass
ITM_MASS_Nb_97	96.9080986 * ITM_AMU	isotope mass
ITM_MASS_Nb_98	97.910328 * ITM_AMU	isotope mass
ITM_MASS_Nb_99	98.911618 * ITM_AMU	isotope mass
ITM_MASS_Nb_100	99.914182 * ITM_AMU	isotope mass
ITM_MASS_Nb_101	100.915252 * ITM_AMU	isotope mass
ITM_MASS_Nb_102	101.918040 * ITM_AMU	isotope mass
ITM_MASS_Nb_103	102.919140 * ITM_AMU	isotope mass
ITM_MASS_Nb_104	103.92246 * ITM_AMU	isotope mass
ITM_MASS_Nb_105	104.92394 * ITM_AMU	isotope mass
ITM_MASS_Nb_106	105.92797 * ITM_AMU	isotope mass
ITM_MASS_Nb_107	106.93031 * ITM_AMU	isotope mass
ITM_MASS_Nb_108	107.93484 * ITM_AMU	isotope mass
ITM_MASS_Nb_109	108.93763 * ITM_AMU	isotope mass
ITM_MASS_Nb_110	109.94244 * ITM_AMU	isotope mass
ITM_MASS_Nb_111	110.94565 * ITM_AMU	isotope mass
ITM_MASS_Nb_112	111.95083 * ITM_AMU	isotope mass
ITM_MASS_Nb_113	112.95470 * ITM_AMU	isotope mass
ITM_MASS_Mo_83	82.94874 * ITM_AMU	isotope mass
ITM_MASS_Mo_84	83.94009 * ITM_AMU	isotope mass
ITM_MASS_Mo_85	84.93655 * ITM_AMU	isotope mass
ITM_MASS_Mo_86	85.93070 * ITM_AMU	isotope mass
ITM_MASS_Mo_87	86.92733 * ITM_AMU	isotope mass
ITM_MASS_Mo_88	87.921953 * ITM_AMU	isotope mass
ITM_MASS_Mo_89	88.919480 * ITM_AMU	isotope mass
ITM_MASS_Mo_90	89.913937 * ITM_AMU	isotope mass
ITM_MASS_Mo_91	90.911750 * ITM_AMU	isotope mass
ITM_MASS_Mo_92	91.906811 * ITM_AMU	isotope mass
ITM_MASS_Mo_93	92.906813 * ITM_AMU	isotope mass
ITM_MASS_Mo_94	93.9050883 * ITM_AMU	isotope mass
ITM_MASS_Mo_95	94.9058421 * ITM_AMU	isotope mass
ITM_MASS_Mo_96	95.9046795 * ITM_AMU	isotope mass
ITM_MASS_Mo_97	96.9060215 * ITM_AMU	isotope mass
ITM_MASS_Mo_98	97.9054082 * ITM_AMU	isotope mass
ITM_MASS_Mo_99	98.9077119 * ITM_AMU	isotope mass
ITM_MASS_Mo_100	99.907477 * ITM_AMU	isotope mass
ITM_MASS_Mo_101	100.910347 * ITM_AMU	isotope mass
ITM_MASS_Mo_102	101.910297 * ITM_AMU	isotope mass
ITM_MASS_Mo_103	102.913210 * ITM_AMU	isotope mass
ITM_MASS_Mo_104	103.913760 * ITM_AMU	isotope mass
ITM_MASS_Mo_105	104.916970 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Mo_106	105.918137 * ITM_AMU	isotope mass
ITM_MASS_Mo_107	106.92169 * ITM_AMU	isotope mass
ITM_MASS_Mo_108	107.92345 * ITM_AMU	isotope mass
ITM_MASS_Mo_109	108.92781 * ITM_AMU	isotope mass
ITM_MASS_Mo_110	109.92973 * ITM_AMU	isotope mass
ITM_MASS_Mo_111	110.93441 * ITM_AMU	isotope mass
ITM_MASS_Mo_112	111.93684 * ITM_AMU	isotope mass
ITM_MASS_Mo_113	112.94188 * ITM_AMU	isotope mass
ITM_MASS_Mo_114	113.94492 * ITM_AMU	isotope mass
ITM_MASS_Mo_115	114.95029 * ITM_AMU	isotope mass
ITM_MASS_Tc_85	84.94883 * ITM_AMU	isotope mass
ITM_MASS_Tc_86	85.94288 * ITM_AMU	isotope mass
ITM_MASS_Tc_87	86.93653 * ITM_AMU	isotope mass
ITM_MASS_Tc_88	87.93268 * ITM_AMU	isotope mass
ITM_MASS_Tc_89	88.92717 * ITM_AMU	isotope mass
ITM_MASS_Tc_90	89.92356 * ITM_AMU	isotope mass
ITM_MASS_Tc_91	90.91843 * ITM_AMU	isotope mass
ITM_MASS_Tc_92	91.915260 * ITM_AMU	isotope mass
ITM_MASS_Tc_93	92.910249 * ITM_AMU	isotope mass
ITM_MASS_Tc_94	93.909657 * ITM_AMU	isotope mass
ITM_MASS_Tc_95	94.907657 * ITM_AMU	isotope mass
ITM_MASS_Tc_96	95.907871 * ITM_AMU	isotope mass
ITM_MASS_Tc_97	96.906365 * ITM_AMU	isotope mass
ITM_MASS_Tc_98	97.907216 * ITM_AMU	isotope mass
ITM_MASS_Tc_99	98.9062547 * ITM_AMU	isotope mass
ITM_MASS_Tc_100	99.9076578 * ITM_AMU	isotope mass
ITM_MASS_Tc_101	100.907315 * ITM_AMU	isotope mass
ITM_MASS_Tc_102	101.909215 * ITM_AMU	isotope mass
ITM_MASS_Tc_103	102.909181 * ITM_AMU	isotope mass
ITM_MASS_Tc_104	103.911450 * ITM_AMU	isotope mass
ITM_MASS_Tc_105	104.911660 * ITM_AMU	isotope mass
ITM_MASS_Tc_106	105.914358 * ITM_AMU	isotope mass
ITM_MASS_Tc_107	106.91508 * ITM_AMU	isotope mass
ITM_MASS_Tc_108	107.91846 * ITM_AMU	isotope mass
ITM_MASS_Tc_109	108.91998 * ITM_AMU	isotope mass
ITM_MASS_Tc_110	109.923820 * ITM_AMU	isotope mass
ITM_MASS_Tc_111	110.92569 * ITM_AMU	isotope mass
ITM_MASS_Tc_112	111.92915 * ITM_AMU	isotope mass
ITM_MASS_Tc_113	112.93159 * ITM_AMU	isotope mass
ITM_MASS_Tc_114	113.93588 * ITM_AMU	isotope mass
ITM_MASS_Tc_115	114.93869 * ITM_AMU	isotope mass
ITM_MASS_Tc_116	115.94337 * ITM_AMU	isotope mass
ITM_MASS_Tc_117	116.94648 * ITM_AMU	isotope mass
ITM_MASS_Tc_118	117.95148 * ITM_AMU	isotope mass
ITM_MASS_Ru_87	86.94918 * ITM_AMU	isotope mass
ITM_MASS_Ru_88	87.94026 * ITM_AMU	isotope mass
ITM_MASS_Ru_89	88.93611 * ITM_AMU	isotope mass
ITM_MASS_Ru_90	89.92989 * ITM_AMU	isotope mass
ITM_MASS_Ru_91	90.92629 * ITM_AMU	isotope mass
ITM_MASS_Ru_92	91.92012 * ITM_AMU	isotope mass
ITM_MASS_Ru_93	92.917050 * ITM_AMU	isotope mass
ITM_MASS_Ru_94	93.911360 * ITM_AMU	isotope mass
ITM_MASS_Ru_95	94.910413 * ITM_AMU	isotope mass
ITM_MASS_Ru_96	95.907598 * ITM_AMU	isotope mass
ITM_MASS_Ru_97	96.907555 * ITM_AMU	isotope mass
ITM_MASS_Ru_98	97.905287 * ITM_AMU	isotope mass
ITM_MASS_Ru_99	98.9059393 * ITM_AMU	isotope mass
ITM_MASS_Ru_100	99.9042195 * ITM_AMU	isotope mass
ITM_MASS_Ru_101	100.9055821 * ITM_AMU	isotope mass
ITM_MASS_Ru_102	101.9043493 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ru_103	102.9063238 * ITM_AMU	isotope mass
ITM_MASS_Ru_104	103.905433 * ITM_AMU	isotope mass
ITM_MASS_Ru_105	104.907753 * ITM_AMU	isotope mass
ITM_MASS_Ru_106	105.907329 * ITM_AMU	isotope mass
ITM_MASS_Ru_107	106.90991 * ITM_AMU	isotope mass
ITM_MASS_Ru_108	107.91017 * ITM_AMU	isotope mass
ITM_MASS_Ru_109	108.913200 * ITM_AMU	isotope mass
ITM_MASS_Ru_110	109.914140 * ITM_AMU	isotope mass
ITM_MASS_Ru_111	110.917700 * ITM_AMU	isotope mass
ITM_MASS_Ru_112	111.918970 * ITM_AMU	isotope mass
ITM_MASS_Ru_113	112.922490 * ITM_AMU	isotope mass
ITM_MASS_Ru_114	113.92428 * ITM_AMU	isotope mass
ITM_MASS_Ru_115	114.92869 * ITM_AMU	isotope mass
ITM_MASS_Ru_116	115.93081 * ITM_AMU	isotope mass
ITM_MASS_Ru_117	116.93558 * ITM_AMU	isotope mass
ITM_MASS_Ru_118	117.93782 * ITM_AMU	isotope mass
ITM_MASS_Ru_119	118.94284 * ITM_AMU	isotope mass
ITM_MASS_Ru_120	119.94531 * ITM_AMU	isotope mass
ITM_MASS_Rh_89	88.94884 * ITM_AMU	isotope mass
ITM_MASS_Rh_90	89.94287 * ITM_AMU	isotope mass
ITM_MASS_Rh_91	90.93655 * ITM_AMU	isotope mass
ITM_MASS_Rh_92	91.93198 * ITM_AMU	isotope mass
ITM_MASS_Rh_93	92.92574 * ITM_AMU	isotope mass
ITM_MASS_Rh_94	93.92170 * ITM_AMU	isotope mass
ITM_MASS_Rh_95	94.91590 * ITM_AMU	isotope mass
ITM_MASS_Rh_96	95.914461 * ITM_AMU	isotope mass
ITM_MASS_Rh_97	96.911340 * ITM_AMU	isotope mass
ITM_MASS_Rh_98	97.910708 * ITM_AMU	isotope mass
ITM_MASS_Rh_99	98.908132 * ITM_AMU	isotope mass
ITM_MASS_Rh_100	99.908122 * ITM_AMU	isotope mass
ITM_MASS_Rh_101	100.906164 * ITM_AMU	isotope mass
ITM_MASS_Rh_102	101.906843 * ITM_AMU	isotope mass
ITM_MASS_Rh_103	102.905504 * ITM_AMU	isotope mass
ITM_MASS_Rh_104	103.906656 * ITM_AMU	isotope mass
ITM_MASS_Rh_105	104.905694 * ITM_AMU	isotope mass
ITM_MASS_Rh_106	105.907287 * ITM_AMU	isotope mass
ITM_MASS_Rh_107	106.906748 * ITM_AMU	isotope mass
ITM_MASS_Rh_108	107.90873 * ITM_AMU	isotope mass
ITM_MASS_Rh_109	108.908737 * ITM_AMU	isotope mass
ITM_MASS_Rh_110	109.911140 * ITM_AMU	isotope mass
ITM_MASS_Rh_111	110.911590 * ITM_AMU	isotope mass
ITM_MASS_Rh_112	111.914390 * ITM_AMU	isotope mass
ITM_MASS_Rh_113	112.915530 * ITM_AMU	isotope mass
ITM_MASS_Rh_114	113.91881 * ITM_AMU	isotope mass
ITM_MASS_Rh_115	114.920330 * ITM_AMU	isotope mass
ITM_MASS_Rh_116	115.92406 * ITM_AMU	isotope mass
ITM_MASS_Rh_117	116.92598 * ITM_AMU	isotope mass
ITM_MASS_Rh_118	117.93007 * ITM_AMU	isotope mass
ITM_MASS_Rh_119	118.93211 * ITM_AMU	isotope mass
ITM_MASS_Rh_120	119.93641 * ITM_AMU	isotope mass
ITM_MASS_Rh_121	120.93872 * ITM_AMU	isotope mass
ITM_MASS_Rh_122	121.94321 * ITM_AMU	isotope mass
ITM_MASS_Pd_91	90.94911 * ITM_AMU	isotope mass
ITM_MASS_Pd_92	91.94042 * ITM_AMU	isotope mass
ITM_MASS_Pd_93	92.93591 * ITM_AMU	isotope mass
ITM_MASS_Pd_94	93.92877 * ITM_AMU	isotope mass
ITM_MASS_Pd_95	94.92469 * ITM_AMU	isotope mass
ITM_MASS_Pd_96	95.91816 * ITM_AMU	isotope mass
ITM_MASS_Pd_97	96.91648 * ITM_AMU	isotope mass
ITM_MASS_Pd_98	97.912721 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Pd_99	98.911768 * ITM_AMU	isotope mass
ITM_MASS_Pd_100	99.908506 * ITM_AMU	isotope mass
ITM_MASS_Pd_101	100.908289 * ITM_AMU	isotope mass
ITM_MASS_Pd_102	101.905609 * ITM_AMU	isotope mass
ITM_MASS_Pd_103	102.906087 * ITM_AMU	isotope mass
ITM_MASS_Pd_104	103.904036 * ITM_AMU	isotope mass
ITM_MASS_Pd_105	104.905085 * ITM_AMU	isotope mass
ITM_MASS_Pd_106	105.903486 * ITM_AMU	isotope mass
ITM_MASS_Pd_107	106.905133 * ITM_AMU	isotope mass
ITM_MASS_Pd_108	107.903892 * ITM_AMU	isotope mass
ITM_MASS_Pd_109	108.905950 * ITM_AMU	isotope mass
ITM_MASS_Pd_110	109.905153 * ITM_AMU	isotope mass
ITM_MASS_Pd_111	110.907671 * ITM_AMU	isotope mass
ITM_MASS_Pd_112	111.907314 * ITM_AMU	isotope mass
ITM_MASS_Pd_113	112.910150 * ITM_AMU	isotope mass
ITM_MASS_Pd_114	113.910363 * ITM_AMU	isotope mass
ITM_MASS_Pd_115	114.913680 * ITM_AMU	isotope mass
ITM_MASS_Pd_116	115.914160 * ITM_AMU	isotope mass
ITM_MASS_Pd_117	116.917840 * ITM_AMU	isotope mass
ITM_MASS_Pd_118	117.91898 * ITM_AMU	isotope mass
ITM_MASS_Pd_119	118.92311 * ITM_AMU	isotope mass
ITM_MASS_Pd_120	119.92469 * ITM_AMU	isotope mass
ITM_MASS_Pd_121	120.92887 * ITM_AMU	isotope mass
ITM_MASS_Pd_122	121.93055 * ITM_AMU	isotope mass
ITM_MASS_Pd_123	122.93493 * ITM_AMU	isotope mass
ITM_MASS_Pd_124	123.93688 * ITM_AMU	isotope mass
ITM_MASS_Ag_93	92.94978 * ITM_AMU	isotope mass
ITM_MASS_Ag_94	93.94278 * ITM_AMU	isotope mass
ITM_MASS_Ag_95	94.93548 * ITM_AMU	isotope mass
ITM_MASS_Ag_96	95.93068 * ITM_AMU	isotope mass
ITM_MASS_Ag_97	96.92397 * ITM_AMU	isotope mass
ITM_MASS_Ag_98	97.921570 * ITM_AMU	isotope mass
ITM_MASS_Ag_99	98.91760 * ITM_AMU	isotope mass
ITM_MASS_Ag_100	99.916100 * ITM_AMU	isotope mass
ITM_MASS_Ag_101	100.91280 * ITM_AMU	isotope mass
ITM_MASS_Ag_102	101.911690 * ITM_AMU	isotope mass
ITM_MASS_Ag_103	102.908973 * ITM_AMU	isotope mass
ITM_MASS_Ag_104	103.908629 * ITM_AMU	isotope mass
ITM_MASS_Ag_105	104.906529 * ITM_AMU	isotope mass
ITM_MASS_Ag_106	105.906669 * ITM_AMU	isotope mass
ITM_MASS_Ag_107	106.905097 * ITM_AMU	isotope mass
ITM_MASS_Ag_108	107.905956 * ITM_AMU	isotope mass
ITM_MASS_Ag_109	108.904752 * ITM_AMU	isotope mass
ITM_MASS_Ag_110	109.906107 * ITM_AMU	isotope mass
ITM_MASS_Ag_111	110.905291 * ITM_AMU	isotope mass
ITM_MASS_Ag_112	111.907005 * ITM_AMU	isotope mass
ITM_MASS_Ag_113	112.906567 * ITM_AMU	isotope mass
ITM_MASS_Ag_114	113.908804 * ITM_AMU	isotope mass
ITM_MASS_Ag_115	114.908760 * ITM_AMU	isotope mass
ITM_MASS_Ag_116	115.911360 * ITM_AMU	isotope mass
ITM_MASS_Ag_117	116.911680 * ITM_AMU	isotope mass
ITM_MASS_Ag_118	117.914580 * ITM_AMU	isotope mass
ITM_MASS_Ag_119	118.91567 * ITM_AMU	isotope mass
ITM_MASS_Ag_120	119.918790 * ITM_AMU	isotope mass
ITM_MASS_Ag_121	120.91985 * ITM_AMU	isotope mass
ITM_MASS_Ag_122	121.92353 * ITM_AMU	isotope mass
ITM_MASS_Ag_123	122.92490 * ITM_AMU	isotope mass
ITM_MASS_Ag_124	123.92864 * ITM_AMU	isotope mass
ITM_MASS_Ag_125	124.93043 * ITM_AMU	isotope mass
ITM_MASS_Ag_126	125.93450 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ag_127	126.93677 * ITM_AMU	isotope mass
ITM_MASS_Ag_128	127.94117 * ITM_AMU	isotope mass
ITM_MASS_Ag_129	128.94369 * ITM_AMU	isotope mass
ITM_MASS_Ag_130	129.95045 * ITM_AMU	isotope mass
ITM_MASS_Cd_95	94.94987 * ITM_AMU	isotope mass
ITM_MASS_Cd_96	95.93977 * ITM_AMU	isotope mass
ITM_MASS_Cd_97	96.93494 * ITM_AMU	isotope mass
ITM_MASS_Cd_98	97.927400 * ITM_AMU	isotope mass
ITM_MASS_Cd_99	98.92501 * ITM_AMU	isotope mass
ITM_MASS_Cd_100	99.92029 * ITM_AMU	isotope mass
ITM_MASS_Cd_101	100.91868 * ITM_AMU	isotope mass
ITM_MASS_Cd_102	101.914460 * ITM_AMU	isotope mass
ITM_MASS_Cd_103	102.913419 * ITM_AMU	isotope mass
ITM_MASS_Cd_104	103.909849 * ITM_AMU	isotope mass
ITM_MASS_Cd_105	104.909468 * ITM_AMU	isotope mass
ITM_MASS_Cd_106	105.906459 * ITM_AMU	isotope mass
ITM_MASS_Cd_107	106.906618 * ITM_AMU	isotope mass
ITM_MASS_Cd_108	107.904184 * ITM_AMU	isotope mass
ITM_MASS_Cd_109	108.904982 * ITM_AMU	isotope mass
ITM_MASS_Cd_110	109.9030021 * ITM_AMU	isotope mass
ITM_MASS_Cd_111	110.9041781 * ITM_AMU	isotope mass
ITM_MASS_Cd_112	111.9027578 * ITM_AMU	isotope mass
ITM_MASS_Cd_113	112.9044017 * ITM_AMU	isotope mass
ITM_MASS_Cd_114	113.9033585 * ITM_AMU	isotope mass
ITM_MASS_Cd_115	114.9054310 * ITM_AMU	isotope mass
ITM_MASS_Cd_116	115.904756 * ITM_AMU	isotope mass
ITM_MASS_Cd_117	116.907219 * ITM_AMU	isotope mass
ITM_MASS_Cd_118	117.906915 * ITM_AMU	isotope mass
ITM_MASS_Cd_119	118.909920 * ITM_AMU	isotope mass
ITM_MASS_Cd_120	119.909850 * ITM_AMU	isotope mass
ITM_MASS_Cd_121	120.912980 * ITM_AMU	isotope mass
ITM_MASS_Cd_122	121.913330 * ITM_AMU	isotope mass
ITM_MASS_Cd_123	122.917000 * ITM_AMU	isotope mass
ITM_MASS_Cd_124	123.917650 * ITM_AMU	isotope mass
ITM_MASS_Cd_125	124.921250 * ITM_AMU	isotope mass
ITM_MASS_Cd_126	125.922350 * ITM_AMU	isotope mass
ITM_MASS_Cd_127	126.926440 * ITM_AMU	isotope mass
ITM_MASS_Cd_128	127.92776 * ITM_AMU	isotope mass
ITM_MASS_Cd_129	128.93215 * ITM_AMU	isotope mass
ITM_MASS_Cd_130	129.93390 * ITM_AMU	isotope mass
ITM_MASS_Cd_131	130.94067 * ITM_AMU	isotope mass
ITM_MASS_Cd_132	131.94555 * ITM_AMU	isotope mass
ITM_MASS_In_97	96.94954 * ITM_AMU	isotope mass
ITM_MASS_In_98	97.94214 * ITM_AMU	isotope mass
ITM_MASS_In_99	98.93422 * ITM_AMU	isotope mass
ITM_MASS_In_100	99.93111 * ITM_AMU	isotope mass
ITM_MASS_In_101	100.92634 * ITM_AMU	isotope mass
ITM_MASS_In_102	101.92409 * ITM_AMU	isotope mass
ITM_MASS_In_103	102.919914 * ITM_AMU	isotope mass
ITM_MASS_In_104	103.918300 * ITM_AMU	isotope mass
ITM_MASS_In_105	104.914674 * ITM_AMU	isotope mass
ITM_MASS_In_106	105.913465 * ITM_AMU	isotope mass
ITM_MASS_In_107	106.910295 * ITM_AMU	isotope mass
ITM_MASS_In_108	107.909698 * ITM_AMU	isotope mass
ITM_MASS_In_109	108.907151 * ITM_AMU	isotope mass
ITM_MASS_In_110	109.907165 * ITM_AMU	isotope mass
ITM_MASS_In_111	110.905103 * ITM_AMU	isotope mass
ITM_MASS_In_112	111.905532 * ITM_AMU	isotope mass
ITM_MASS_In_113	112.904058 * ITM_AMU	isotope mass
ITM_MASS_In_114	113.904914 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_In_115	114.903878 * ITM_AMU	isotope mass
ITM_MASS_In_116	115.905260 * ITM_AMU	isotope mass
ITM_MASS_In_117	116.904514 * ITM_AMU	isotope mass
ITM_MASS_In_118	117.906354 * ITM_AMU	isotope mass
ITM_MASS_In_119	118.905845 * ITM_AMU	isotope mass
ITM_MASS_In_120	119.907960 * ITM_AMU	isotope mass
ITM_MASS_In_121	120.907846 * ITM_AMU	isotope mass
ITM_MASS_In_122	121.910280 * ITM_AMU	isotope mass
ITM_MASS_In_123	122.910438 * ITM_AMU	isotope mass
ITM_MASS_In_124	123.913180 * ITM_AMU	isotope mass
ITM_MASS_In_125	124.913600 * ITM_AMU	isotope mass
ITM_MASS_In_126	125.916460 * ITM_AMU	isotope mass
ITM_MASS_In_127	126.917350 * ITM_AMU	isotope mass
ITM_MASS_In_128	127.920170 * ITM_AMU	isotope mass
ITM_MASS_In_129	128.921700 * ITM_AMU	isotope mass
ITM_MASS_In_130	129.924970 * ITM_AMU	isotope mass
ITM_MASS_In_131	130.926850 * ITM_AMU	isotope mass
ITM_MASS_In_132	131.932990 * ITM_AMU	isotope mass
ITM_MASS_In_133	132.93781 * ITM_AMU	isotope mass
ITM_MASS_In_134	133.94415 * ITM_AMU	isotope mass
ITM_MASS_In_135	134.94933 * ITM_AMU	isotope mass
ITM_MASS_Sn_99	98.94933 * ITM_AMU	isotope mass
ITM_MASS_Sn_100	99.93904 * ITM_AMU	isotope mass
ITM_MASS_Sn_101	100.93606 * ITM_AMU	isotope mass
ITM_MASS_Sn_102	101.93030 * ITM_AMU	isotope mass
ITM_MASS_Sn_103	102.92810 * ITM_AMU	isotope mass
ITM_MASS_Sn_104	103.92314 * ITM_AMU	isotope mass
ITM_MASS_Sn_105	104.921350 * ITM_AMU	isotope mass
ITM_MASS_Sn_106	105.916880 * ITM_AMU	isotope mass
ITM_MASS_Sn_107	106.915640 * ITM_AMU	isotope mass
ITM_MASS_Sn_108	107.911925 * ITM_AMU	isotope mass
ITM_MASS_Sn_109	108.911283 * ITM_AMU	isotope mass
ITM_MASS_Sn_110	109.907843 * ITM_AMU	isotope mass
ITM_MASS_Sn_111	110.907734 * ITM_AMU	isotope mass
ITM_MASS_Sn_112	111.904818 * ITM_AMU	isotope mass
ITM_MASS_Sn_113	112.905171 * ITM_AMU	isotope mass
ITM_MASS_Sn_114	113.902779 * ITM_AMU	isotope mass
ITM_MASS_Sn_115	114.903342 * ITM_AMU	isotope mass
ITM_MASS_Sn_116	115.901741 * ITM_AMU	isotope mass
ITM_MASS_Sn_117	116.902952 * ITM_AMU	isotope mass
ITM_MASS_Sn_118	117.901603 * ITM_AMU	isotope mass
ITM_MASS_Sn_119	118.903308 * ITM_AMU	isotope mass
ITM_MASS_Sn_120	119.9021947 * ITM_AMU	isotope mass
ITM_MASS_Sn_121	120.9042355 * ITM_AMU	isotope mass
ITM_MASS_Sn_122	121.9034390 * ITM_AMU	isotope mass
ITM_MASS_Sn_123	122.9057208 * ITM_AMU	isotope mass
ITM_MASS_Sn_124	123.9052739 * ITM_AMU	isotope mass
ITM_MASS_Sn_125	124.9077841 * ITM_AMU	isotope mass
ITM_MASS_Sn_126	125.907653 * ITM_AMU	isotope mass
ITM_MASS_Sn_127	126.910360 * ITM_AMU	isotope mass
ITM_MASS_Sn_128	127.910537 * ITM_AMU	isotope mass
ITM_MASS_Sn_129	128.913480 * ITM_AMU	isotope mass
ITM_MASS_Sn_130	129.913967 * ITM_AMU	isotope mass
ITM_MASS_Sn_131	130.917000 * ITM_AMU	isotope mass
ITM_MASS_Sn_132	131.917816 * ITM_AMU	isotope mass
ITM_MASS_Sn_133	132.923830 * ITM_AMU	isotope mass
ITM_MASS_Sn_134	133.92829 * ITM_AMU	isotope mass
ITM_MASS_Sn_135	134.93473 * ITM_AMU	isotope mass
ITM_MASS_Sn_136	135.93934 * ITM_AMU	isotope mass
ITM_MASS_Sn_137	136.94599 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Sb_103	102.93969 * ITM_AMU	isotope mass
ITM_MASS_Sb_104	103.93647 * ITM_AMU	isotope mass
ITM_MASS_Sb_105	104.93149 * ITM_AMU	isotope mass
ITM_MASS_Sb_106	105.92879 * ITM_AMU	isotope mass
ITM_MASS_Sb_107	106.92415 * ITM_AMU	isotope mass
ITM_MASS_Sb_108	107.92216 * ITM_AMU	isotope mass
ITM_MASS_Sb_109	108.918132 * ITM_AMU	isotope mass
ITM_MASS_Sb_110	109.91675 * ITM_AMU	isotope mass
ITM_MASS_Sb_111	110.913160 * ITM_AMU	isotope mass
ITM_MASS_Sb_112	111.912398 * ITM_AMU	isotope mass
ITM_MASS_Sb_113	112.909372 * ITM_AMU	isotope mass
ITM_MASS_Sb_114	113.909270 * ITM_AMU	isotope mass
ITM_MASS_Sb_115	114.906598 * ITM_AMU	isotope mass
ITM_MASS_Sb_116	115.906794 * ITM_AMU	isotope mass
ITM_MASS_Sb_117	116.904836 * ITM_AMU	isotope mass
ITM_MASS_Sb_118	117.905529 * ITM_AMU	isotope mass
ITM_MASS_Sb_119	118.903942 * ITM_AMU	isotope mass
ITM_MASS_Sb_120	119.905072 * ITM_AMU	isotope mass
ITM_MASS_Sb_121	120.9038157 * ITM_AMU	isotope mass
ITM_MASS_Sb_122	121.9051737 * ITM_AMU	isotope mass
ITM_MASS_Sb_123	122.9042140 * ITM_AMU	isotope mass
ITM_MASS_Sb_124	123.9059357 * ITM_AMU	isotope mass
ITM_MASS_Sb_125	124.9052538 * ITM_AMU	isotope mass
ITM_MASS_Sb_126	125.907250 * ITM_AMU	isotope mass
ITM_MASS_Sb_127	126.906924 * ITM_AMU	isotope mass
ITM_MASS_Sb_128	127.909169 * ITM_AMU	isotope mass
ITM_MASS_Sb_129	128.909148 * ITM_AMU	isotope mass
ITM_MASS_Sb_130	129.911656 * ITM_AMU	isotope mass
ITM_MASS_Sb_131	130.911982 * ITM_AMU	isotope mass
ITM_MASS_Sb_132	131.914467 * ITM_AMU	isotope mass
ITM_MASS_Sb_133	132.915252 * ITM_AMU	isotope mass
ITM_MASS_Sb_134	133.920380 * ITM_AMU	isotope mass
ITM_MASS_Sb_135	134.92517 * ITM_AMU	isotope mass
ITM_MASS_Sb_136	135.93035 * ITM_AMU	isotope mass
ITM_MASS_Sb_137	136.93531 * ITM_AMU	isotope mass
ITM_MASS_Sb_138	137.94079 * ITM_AMU	isotope mass
ITM_MASS_Sb_139	138.94598 * ITM_AMU	isotope mass
ITM_MASS_Te_105	104.94364 * ITM_AMU	isotope mass
ITM_MASS_Te_106	105.93750 * ITM_AMU	isotope mass
ITM_MASS_Te_107	106.93501 * ITM_AMU	isotope mass
ITM_MASS_Te_108	107.92944 * ITM_AMU	isotope mass
ITM_MASS_Te_109	108.927420 * ITM_AMU	isotope mass
ITM_MASS_Te_110	109.922410 * ITM_AMU	isotope mass
ITM_MASS_Te_111	110.921110 * ITM_AMU	isotope mass
ITM_MASS_Te_112	111.91701 * ITM_AMU	isotope mass
ITM_MASS_Te_113	112.915890 * ITM_AMU	isotope mass
ITM_MASS_Te_114	113.912090 * ITM_AMU	isotope mass
ITM_MASS_Te_115	114.911900 * ITM_AMU	isotope mass
ITM_MASS_Te_116	115.908460 * ITM_AMU	isotope mass
ITM_MASS_Te_117	116.908645 * ITM_AMU	isotope mass
ITM_MASS_Te_118	117.905828 * ITM_AMU	isotope mass
ITM_MASS_Te_119	118.906404 * ITM_AMU	isotope mass
ITM_MASS_Te_120	119.904020 * ITM_AMU	isotope mass
ITM_MASS_Te_121	120.904936 * ITM_AMU	isotope mass
ITM_MASS_Te_122	121.9030439 * ITM_AMU	isotope mass
ITM_MASS_Te_123	122.9042700 * ITM_AMU	isotope mass
ITM_MASS_Te_124	123.9028179 * ITM_AMU	isotope mass
ITM_MASS_Te_125	124.9044307 * ITM_AMU	isotope mass
ITM_MASS_Te_126	125.9033117 * ITM_AMU	isotope mass
ITM_MASS_Te_127	126.9052263 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Te_128	127.9044631 * ITM_AMU	isotope mass
ITM_MASS_Te_129	128.9065982 * ITM_AMU	isotope mass
ITM_MASS_Te_130	129.9062244 * ITM_AMU	isotope mass
ITM_MASS_Te_131	130.9085239 * ITM_AMU	isotope mass
ITM_MASS_Te_132	131.908553 * ITM_AMU	isotope mass
ITM_MASS_Te_133	132.910955 * ITM_AMU	isotope mass
ITM_MASS_Te_134	133.911369 * ITM_AMU	isotope mass
ITM_MASS_Te_135	134.91645 * ITM_AMU	isotope mass
ITM_MASS_Te_136	135.920100 * ITM_AMU	isotope mass
ITM_MASS_Te_137	136.92532 * ITM_AMU	isotope mass
ITM_MASS_Te_138	137.92922 * ITM_AMU	isotope mass
ITM_MASS_Te_139	138.93473 * ITM_AMU	isotope mass
ITM_MASS_Te_140	139.93885 * ITM_AMU	isotope mass
ITM_MASS_Te_141	140.94465 * ITM_AMU	isotope mass
ITM_MASS_Te_142	141.94908 * ITM_AMU	isotope mass
ITM_MASS_I_108	107.94348 * ITM_AMU	isotope mass
ITM_MASS_I_109	108.93815 * ITM_AMU	isotope mass
ITM_MASS_I_110	109.93524 * ITM_AMU	isotope mass
ITM_MASS_I_111	110.93028 * ITM_AMU	isotope mass
ITM_MASS_I_112	111.92797 * ITM_AMU	isotope mass
ITM_MASS_I_113	112.923640 * ITM_AMU	isotope mass
ITM_MASS_I_114	113.92185 * ITM_AMU	isotope mass
ITM_MASS_I_115	114.918050 * ITM_AMU	isotope mass
ITM_MASS_I_116	115.91681 * ITM_AMU	isotope mass
ITM_MASS_I_117	116.913650 * ITM_AMU	isotope mass
ITM_MASS_I_118	117.913074 * ITM_AMU	isotope mass
ITM_MASS_I_119	118.910070 * ITM_AMU	isotope mass
ITM_MASS_I_120	119.910048 * ITM_AMU	isotope mass
ITM_MASS_I_121	120.907367 * ITM_AMU	isotope mass
ITM_MASS_I_122	121.907589 * ITM_AMU	isotope mass
ITM_MASS_I_123	122.905589 * ITM_AMU	isotope mass
ITM_MASS_I_124	123.9062099 * ITM_AMU	isotope mass
ITM_MASS_I_125	124.9046302 * ITM_AMU	isotope mass
ITM_MASS_I_126	125.905624 * ITM_AMU	isotope mass
ITM_MASS_I_127	126.904473 * ITM_AMU	isotope mass
ITM_MASS_I_128	127.905809 * ITM_AMU	isotope mass
ITM_MASS_I_129	128.904988 * ITM_AMU	isotope mass
ITM_MASS_I_130	129.906674 * ITM_AMU	isotope mass
ITM_MASS_I_131	130.9061246 * ITM_AMU	isotope mass
ITM_MASS_I_132	131.907997 * ITM_AMU	isotope mass
ITM_MASS_I_133	132.907797 * ITM_AMU	isotope mass
ITM_MASS_I_134	133.909744 * ITM_AMU	isotope mass
ITM_MASS_I_135	134.910048 * ITM_AMU	isotope mass
ITM_MASS_I_136	135.914650 * ITM_AMU	isotope mass
ITM_MASS_I_137	136.917871 * ITM_AMU	isotope mass
ITM_MASS_I_138	137.922350 * ITM_AMU	isotope mass
ITM_MASS_I_139	138.926100 * ITM_AMU	isotope mass
ITM_MASS_I_140	139.93100 * ITM_AMU	isotope mass
ITM_MASS_I_141	140.93503 * ITM_AMU	isotope mass
ITM_MASS_I_142	141.94018 * ITM_AMU	isotope mass
ITM_MASS_I_143	142.94456 * ITM_AMU	isotope mass
ITM_MASS_I_144	143.94999 * ITM_AMU	isotope mass
ITM_MASS_Xe_110	109.94428 * ITM_AMU	isotope mass
ITM_MASS_Xe_111	110.94160 * ITM_AMU	isotope mass
ITM_MASS_Xe_112	111.93562 * ITM_AMU	isotope mass
ITM_MASS_Xe_113	112.933340 * ITM_AMU	isotope mass
ITM_MASS_Xe_114	113.927980 * ITM_AMU	isotope mass
ITM_MASS_Xe_115	114.926294 * ITM_AMU	isotope mass
ITM_MASS_Xe_116	115.921581 * ITM_AMU	isotope mass
ITM_MASS_Xe_117	116.920359 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Xe_118	117.916179 * ITM_AMU	isotope mass
ITM_MASS_Xe_119	118.915411 * ITM_AMU	isotope mass
ITM_MASS_Xe_120	119.911784 * ITM_AMU	isotope mass
ITM_MASS_Xe_121	120.911462 * ITM_AMU	isotope mass
ITM_MASS_Xe_122	121.908368 * ITM_AMU	isotope mass
ITM_MASS_Xe_123	122.908482 * ITM_AMU	isotope mass
ITM_MASS_Xe_124	123.9058930 * ITM_AMU	isotope mass
ITM_MASS_Xe_125	124.9063955 * ITM_AMU	isotope mass
ITM_MASS_Xe_126	125.904274 * ITM_AMU	isotope mass
ITM_MASS_Xe_127	126.905184 * ITM_AMU	isotope mass
ITM_MASS_Xe_128	127.9035313 * ITM_AMU	isotope mass
ITM_MASS_Xe_129	128.9047794 * ITM_AMU	isotope mass
ITM_MASS_Xe_130	129.9035080 * ITM_AMU	isotope mass
ITM_MASS_Xe_131	130.9050824 * ITM_AMU	isotope mass
ITM_MASS_Xe_132	131.9041535 * ITM_AMU	isotope mass
ITM_MASS_Xe_133	132.9059107 * ITM_AMU	isotope mass
ITM_MASS_Xe_134	133.9053945 * ITM_AMU	isotope mass
ITM_MASS_Xe_135	134.907227 * ITM_AMU	isotope mass
ITM_MASS_Xe_136	135.907219 * ITM_AMU	isotope mass
ITM_MASS_Xe_137	136.911562 * ITM_AMU	isotope mass
ITM_MASS_Xe_138	137.913950 * ITM_AMU	isotope mass
ITM_MASS_Xe_139	138.918793 * ITM_AMU	isotope mass
ITM_MASS_Xe_140	139.921640 * ITM_AMU	isotope mass
ITM_MASS_Xe_141	140.92665 * ITM_AMU	isotope mass
ITM_MASS_Xe_142	141.92971 * ITM_AMU	isotope mass
ITM_MASS_Xe_143	142.93511 * ITM_AMU	isotope mass
ITM_MASS_Xe_144	143.93851 * ITM_AMU	isotope mass
ITM_MASS_Xe_145	144.94407 * ITM_AMU	isotope mass
ITM_MASS_Xe_146	145.94775 * ITM_AMU	isotope mass
ITM_MASS_Xe_147	146.95356 * ITM_AMU	isotope mass
ITM_MASS_Cs_112	111.95030 * ITM_AMU	isotope mass
ITM_MASS_Cs_113	112.94449 * ITM_AMU	isotope mass
ITM_MASS_Cs_114	113.94145 * ITM_AMU	isotope mass
ITM_MASS_Cs_115	114.93591 * ITM_AMU	isotope mass
ITM_MASS_Cs_116	115.93337 * ITM_AMU	isotope mass
ITM_MASS_Cs_117	116.928670 * ITM_AMU	isotope mass
ITM_MASS_Cs_118	117.926559 * ITM_AMU	isotope mass
ITM_MASS_Cs_119	118.922377 * ITM_AMU	isotope mass
ITM_MASS_Cs_120	119.920677 * ITM_AMU	isotope mass
ITM_MASS_Cs_121	120.917229 * ITM_AMU	isotope mass
ITM_MASS_Cs_122	121.916110 * ITM_AMU	isotope mass
ITM_MASS_Cs_123	122.912996 * ITM_AMU	isotope mass
ITM_MASS_Cs_124	123.912258 * ITM_AMU	isotope mass
ITM_MASS_Cs_125	124.909728 * ITM_AMU	isotope mass
ITM_MASS_Cs_126	125.909452 * ITM_AMU	isotope mass
ITM_MASS_Cs_127	126.907418 * ITM_AMU	isotope mass
ITM_MASS_Cs_128	127.907749 * ITM_AMU	isotope mass
ITM_MASS_Cs_129	128.906064 * ITM_AMU	isotope mass
ITM_MASS_Cs_130	129.906709 * ITM_AMU	isotope mass
ITM_MASS_Cs_131	130.905464 * ITM_AMU	isotope mass
ITM_MASS_Cs_132	131.9064343 * ITM_AMU	isotope mass
ITM_MASS_Cs_133	132.905451933 * ITM_AMU	isotope mass
ITM_MASS_Cs_134	133.906718475 * ITM_AMU	isotope mass
ITM_MASS_Cs_135	134.9059770 * ITM_AMU	isotope mass
ITM_MASS_Cs_136	135.9073116 * ITM_AMU	isotope mass
ITM_MASS_Cs_137	136.9070895 * ITM_AMU	isotope mass
ITM_MASS_Cs_138	137.911017 * ITM_AMU	isotope mass
ITM_MASS_Cs_139	138.913364 * ITM_AMU	isotope mass
ITM_MASS_Cs_140	139.917282 * ITM_AMU	isotope mass
ITM_MASS_Cs_141	140.920046 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Cs_142	141.924299 * ITM_AMU	isotope mass
ITM_MASS_Cs_143	142.927352 * ITM_AMU	isotope mass
ITM_MASS_Cs_144	143.932077 * ITM_AMU	isotope mass
ITM_MASS_Cs_145	144.935526 * ITM_AMU	isotope mass
ITM_MASS_Cs_146	145.940290 * ITM_AMU	isotope mass
ITM_MASS_Cs_147	146.944160 * ITM_AMU	isotope mass
ITM_MASS_Cs_148	147.94922 * ITM_AMU	isotope mass
ITM_MASS_Cs_149	148.95293 * ITM_AMU	isotope mass
ITM_MASS_Cs_150	149.95817 * ITM_AMU	isotope mass
ITM_MASS_Cs_151	150.96219 * ITM_AMU	isotope mass
ITM_MASS_Ba_114	113.95068 * ITM_AMU	isotope mass
ITM_MASS_Ba_115	114.94737 * ITM_AMU	isotope mass
ITM_MASS_Ba_116	115.94138 * ITM_AMU	isotope mass
ITM_MASS_Ba_117	116.93850 * ITM_AMU	isotope mass
ITM_MASS_Ba_118	117.93304 * ITM_AMU	isotope mass
ITM_MASS_Ba_119	118.93066 * ITM_AMU	isotope mass
ITM_MASS_Ba_120	119.92604 * ITM_AMU	isotope mass
ITM_MASS_Ba_121	120.92405 * ITM_AMU	isotope mass
ITM_MASS_Ba_122	121.919900 * ITM_AMU	isotope mass
ITM_MASS_Ba_123	122.918781 * ITM_AMU	isotope mass
ITM_MASS_Ba_124	123.915094 * ITM_AMU	isotope mass
ITM_MASS_Ba_125	124.914473 * ITM_AMU	isotope mass
ITM_MASS_Ba_126	125.911250 * ITM_AMU	isotope mass
ITM_MASS_Ba_127	126.911094 * ITM_AMU	isotope mass
ITM_MASS_Ba_128	127.908318 * ITM_AMU	isotope mass
ITM_MASS_Ba_129	128.908679 * ITM_AMU	isotope mass
ITM_MASS_Ba_130	129.9063208 * ITM_AMU	isotope mass
ITM_MASS_Ba_131	130.906941 * ITM_AMU	isotope mass
ITM_MASS_Ba_132	131.9050613 * ITM_AMU	isotope mass
ITM_MASS_Ba_133	132.9060075 * ITM_AMU	isotope mass
ITM_MASS_Ba_134	133.9045084 * ITM_AMU	isotope mass
ITM_MASS_Ba_135	134.9056886 * ITM_AMU	isotope mass
ITM_MASS_Ba_136	135.9045759 * ITM_AMU	isotope mass
ITM_MASS_Ba_137	136.9058274 * ITM_AMU	isotope mass
ITM_MASS_Ba_138	137.9052472 * ITM_AMU	isotope mass
ITM_MASS_Ba_139	138.9088413 * ITM_AMU	isotope mass
ITM_MASS_Ba_140	139.910605 * ITM_AMU	isotope mass
ITM_MASS_Ba_141	140.914411 * ITM_AMU	isotope mass
ITM_MASS_Ba_142	141.916453 * ITM_AMU	isotope mass
ITM_MASS_Ba_143	142.920627 * ITM_AMU	isotope mass
ITM_MASS_Ba_144	143.922953 * ITM_AMU	isotope mass
ITM_MASS_Ba_145	144.927630 * ITM_AMU	isotope mass
ITM_MASS_Ba_146	145.930220 * ITM_AMU	isotope mass
ITM_MASS_Ba_147	146.93495 * ITM_AMU	isotope mass
ITM_MASS_Ba_148	147.937720 * ITM_AMU	isotope mass
ITM_MASS_Ba_149	148.94258 * ITM_AMU	isotope mass
ITM_MASS_Ba_150	149.94568 * ITM_AMU	isotope mass
ITM_MASS_Ba_151	150.95081 * ITM_AMU	isotope mass
ITM_MASS_Ba_152	151.95427 * ITM_AMU	isotope mass
ITM_MASS_Ba_153	152.95961 * ITM_AMU	isotope mass
ITM_MASS_La_117	116.95007 * ITM_AMU	isotope mass
ITM_MASS_La_118	117.94673 * ITM_AMU	isotope mass
ITM_MASS_La_119	118.94099 * ITM_AMU	isotope mass
ITM_MASS_La_120	119.93807 * ITM_AMU	isotope mass
ITM_MASS_La_121	120.93301 * ITM_AMU	isotope mass
ITM_MASS_La_122	121.93071 * ITM_AMU	isotope mass
ITM_MASS_La_123	122.92624 * ITM_AMU	isotope mass
ITM_MASS_La_124	123.924570 * ITM_AMU	isotope mass
ITM_MASS_La_125	124.920816 * ITM_AMU	isotope mass
ITM_MASS_La_126	125.91951 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_La_127	126.916375 * ITM_AMU	isotope mass
ITM_MASS_La_128	127.915590 * ITM_AMU	isotope mass
ITM_MASS_La_129	128.912693 * ITM_AMU	isotope mass
ITM_MASS_La_130	129.912369 * ITM_AMU	isotope mass
ITM_MASS_La_131	130.910070 * ITM_AMU	isotope mass
ITM_MASS_La_132	131.910100 * ITM_AMU	isotope mass
ITM_MASS_La_133	132.908220 * ITM_AMU	isotope mass
ITM_MASS_La_134	133.908514 * ITM_AMU	isotope mass
ITM_MASS_La_135	134.906977 * ITM_AMU	isotope mass
ITM_MASS_La_136	135.907640 * ITM_AMU	isotope mass
ITM_MASS_La_137	136.906494 * ITM_AMU	isotope mass
ITM_MASS_La_138	137.907112 * ITM_AMU	isotope mass
ITM_MASS_La_139	138.9063533 * ITM_AMU	isotope mass
ITM_MASS_La_140	139.9094776 * ITM_AMU	isotope mass
ITM_MASS_La_141	140.910962 * ITM_AMU	isotope mass
ITM_MASS_La_142	141.914079 * ITM_AMU	isotope mass
ITM_MASS_La_143	142.916063 * ITM_AMU	isotope mass
ITM_MASS_La_144	143.919600 * ITM_AMU	isotope mass
ITM_MASS_La_145	144.92165 * ITM_AMU	isotope mass
ITM_MASS_La_146	145.925790 * ITM_AMU	isotope mass
ITM_MASS_La_147	146.928240 * ITM_AMU	isotope mass
ITM_MASS_La_148	147.932230 * ITM_AMU	isotope mass
ITM_MASS_La_149	148.93473 * ITM_AMU	isotope mass
ITM_MASS_La_150	149.93877 * ITM_AMU	isotope mass
ITM_MASS_La_151	150.94172 * ITM_AMU	isotope mass
ITM_MASS_La_152	151.94625 * ITM_AMU	isotope mass
ITM_MASS_La_153	152.94962 * ITM_AMU	isotope mass
ITM_MASS_La_154	153.95450 * ITM_AMU	isotope mass
ITM_MASS_La_155	154.95835 * ITM_AMU	isotope mass
ITM_MASS_Ce_119	118.95276 * ITM_AMU	isotope mass
ITM_MASS_Ce_120	119.94664 * ITM_AMU	isotope mass
ITM_MASS_Ce_121	120.94342 * ITM_AMU	isotope mass
ITM_MASS_Ce_122	121.93791 * ITM_AMU	isotope mass
ITM_MASS_Ce_123	122.93540 * ITM_AMU	isotope mass
ITM_MASS_Ce_124	123.93041 * ITM_AMU	isotope mass
ITM_MASS_Ce_125	124.92844 * ITM_AMU	isotope mass
ITM_MASS_Ce_126	125.923970 * ITM_AMU	isotope mass
ITM_MASS_Ce_127	126.922730 * ITM_AMU	isotope mass
ITM_MASS_Ce_128	127.918910 * ITM_AMU	isotope mass
ITM_MASS_Ce_129	128.918100 * ITM_AMU	isotope mass
ITM_MASS_Ce_130	129.914740 * ITM_AMU	isotope mass
ITM_MASS_Ce_131	130.914420 * ITM_AMU	isotope mass
ITM_MASS_Ce_132	131.911460 * ITM_AMU	isotope mass
ITM_MASS_Ce_133	132.911515 * ITM_AMU	isotope mass
ITM_MASS_Ce_134	133.908925 * ITM_AMU	isotope mass
ITM_MASS_Ce_135	134.909151 * ITM_AMU	isotope mass
ITM_MASS_Ce_136	135.907172 * ITM_AMU	isotope mass
ITM_MASS_Ce_137	136.907806 * ITM_AMU	isotope mass
ITM_MASS_Ce_138	137.905991 * ITM_AMU	isotope mass
ITM_MASS_Ce_139	138.906653 * ITM_AMU	isotope mass
ITM_MASS_Ce_140	139.9054387 * ITM_AMU	isotope mass
ITM_MASS_Ce_141	140.9082763 * ITM_AMU	isotope mass
ITM_MASS_Ce_142	141.909244 * ITM_AMU	isotope mass
ITM_MASS_Ce_143	142.912386 * ITM_AMU	isotope mass
ITM_MASS_Ce_144	143.913647 * ITM_AMU	isotope mass
ITM_MASS_Ce_145	144.917230 * ITM_AMU	isotope mass
ITM_MASS_Ce_146	145.918760 * ITM_AMU	isotope mass
ITM_MASS_Ce_147	146.922670 * ITM_AMU	isotope mass
ITM_MASS_Ce_148	147.924430 * ITM_AMU	isotope mass
ITM_MASS_Ce_149	148.92840 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ce_150	149.930410 * ITM_AMU	isotope mass
ITM_MASS_Ce_151	150.93398 * ITM_AMU	isotope mass
ITM_MASS_Ce_152	151.93654 * ITM_AMU	isotope mass
ITM_MASS_Ce_153	152.94058 * ITM_AMU	isotope mass
ITM_MASS_Ce_154	153.94342 * ITM_AMU	isotope mass
ITM_MASS_Ce_155	154.94804 * ITM_AMU	isotope mass
ITM_MASS_Ce_156	155.95126 * ITM_AMU	isotope mass
ITM_MASS_Ce_157	156.95634 * ITM_AMU	isotope mass
ITM_MASS_Pr_121	120.95536 * ITM_AMU	isotope mass
ITM_MASS_Pr_122	121.95181 * ITM_AMU	isotope mass
ITM_MASS_Pr_123	122.94596 * ITM_AMU	isotope mass
ITM_MASS_Pr_124	123.94296 * ITM_AMU	isotope mass
ITM_MASS_Pr_125	124.93783 * ITM_AMU	isotope mass
ITM_MASS_Pr_126	125.93531 * ITM_AMU	isotope mass
ITM_MASS_Pr_127	126.93083 * ITM_AMU	isotope mass
ITM_MASS_Pr_128	127.928790 * ITM_AMU	isotope mass
ITM_MASS_Pr_129	128.925100 * ITM_AMU	isotope mass
ITM_MASS_Pr_130	129.923590 * ITM_AMU	isotope mass
ITM_MASS_Pr_131	130.920260 * ITM_AMU	isotope mass
ITM_MASS_Pr_132	131.919260 * ITM_AMU	isotope mass
ITM_MASS_Pr_133	132.916331 * ITM_AMU	isotope mass
ITM_MASS_Pr_134	133.915710 * ITM_AMU	isotope mass
ITM_MASS_Pr_135	134.913112 * ITM_AMU	isotope mass
ITM_MASS_Pr_136	135.912692 * ITM_AMU	isotope mass
ITM_MASS_Pr_137	136.910705 * ITM_AMU	isotope mass
ITM_MASS_Pr_138	137.910755 * ITM_AMU	isotope mass
ITM_MASS_Pr_139	138.908938 * ITM_AMU	isotope mass
ITM_MASS_Pr_140	139.909076 * ITM_AMU	isotope mass
ITM_MASS_Pr_141	140.9076528 * ITM_AMU	isotope mass
ITM_MASS_Pr_142	141.9100448 * ITM_AMU	isotope mass
ITM_MASS_Pr_143	142.9108169 * ITM_AMU	isotope mass
ITM_MASS_Pr_144	143.913305 * ITM_AMU	isotope mass
ITM_MASS_Pr_145	144.914512 * ITM_AMU	isotope mass
ITM_MASS_Pr_146	145.917640 * ITM_AMU	isotope mass
ITM_MASS_Pr_147	146.918996 * ITM_AMU	isotope mass
ITM_MASS_Pr_148	147.922135 * ITM_AMU	isotope mass
ITM_MASS_Pr_149	148.923720 * ITM_AMU	isotope mass
ITM_MASS_Pr_150	149.926673 * ITM_AMU	isotope mass
ITM_MASS_Pr_151	150.928319 * ITM_AMU	isotope mass
ITM_MASS_Pr_152	151.93150 * ITM_AMU	isotope mass
ITM_MASS_Pr_153	152.93384 * ITM_AMU	isotope mass
ITM_MASS_Pr_154	153.93752 * ITM_AMU	isotope mass
ITM_MASS_Pr_155	154.94012 * ITM_AMU	isotope mass
ITM_MASS_Pr_156	155.94427 * ITM_AMU	isotope mass
ITM_MASS_Pr_157	156.94743 * ITM_AMU	isotope mass
ITM_MASS_Pr_158	157.95198 * ITM_AMU	isotope mass
ITM_MASS_Pr_159	158.95550 * ITM_AMU	isotope mass
ITM_MASS_Nd_124	123.95223 * ITM_AMU	isotope mass
ITM_MASS_Nd_125	124.94888 * ITM_AMU	isotope mass
ITM_MASS_Nd_126	125.94322 * ITM_AMU	isotope mass
ITM_MASS_Nd_127	126.94050 * ITM_AMU	isotope mass
ITM_MASS_Nd_128	127.93539 * ITM_AMU	isotope mass
ITM_MASS_Nd_129	128.93319 * ITM_AMU	isotope mass
ITM_MASS_Nd_130	129.928510 * ITM_AMU	isotope mass
ITM_MASS_Nd_131	130.927250 * ITM_AMU	isotope mass
ITM_MASS_Nd_132	131.923321 * ITM_AMU	isotope mass
ITM_MASS_Nd_133	132.922350 * ITM_AMU	isotope mass
ITM_MASS_Nd_134	133.918790 * ITM_AMU	isotope mass
ITM_MASS_Nd_135	134.918181 * ITM_AMU	isotope mass
ITM_MASS_Nd_136	135.914976 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Nd_137	136.914567 * ITM_AMU	isotope mass
ITM_MASS_Nd_138	137.911950 * ITM_AMU	isotope mass
ITM_MASS_Nd_139	138.911978 * ITM_AMU	isotope mass
ITM_MASS_Nd_140	139.909550 * ITM_AMU	isotope mass
ITM_MASS_Nd_141	140.909610 * ITM_AMU	isotope mass
ITM_MASS_Nd_142	141.9077233 * ITM_AMU	isotope mass
ITM_MASS_Nd_143	142.9098143 * ITM_AMU	isotope mass
ITM_MASS_Nd_144	143.9100873 * ITM_AMU	isotope mass
ITM_MASS_Nd_145	144.9125736 * ITM_AMU	isotope mass
ITM_MASS_Nd_146	145.9131169 * ITM_AMU	isotope mass
ITM_MASS_Nd_147	146.9161004 * ITM_AMU	isotope mass
ITM_MASS_Nd_148	147.916893 * ITM_AMU	isotope mass
ITM_MASS_Nd_149	148.920149 * ITM_AMU	isotope mass
ITM_MASS_Nd_150	149.920891 * ITM_AMU	isotope mass
ITM_MASS_Nd_151	150.923829 * ITM_AMU	isotope mass
ITM_MASS_Nd_152	151.924682 * ITM_AMU	isotope mass
ITM_MASS_Nd_153	152.927698 * ITM_AMU	isotope mass
ITM_MASS_Nd_154	153.92948 * ITM_AMU	isotope mass
ITM_MASS_Nd_155	154.93293 * ITM_AMU	isotope mass
ITM_MASS_Nd_156	155.93502 * ITM_AMU	isotope mass
ITM_MASS_Nd_157	156.93903 * ITM_AMU	isotope mass
ITM_MASS_Nd_158	157.94160 * ITM_AMU	isotope mass
ITM_MASS_Nd_159	158.94609 * ITM_AMU	isotope mass
ITM_MASS_Nd_160	159.94909 * ITM_AMU	isotope mass
ITM_MASS_Nd_161	160.95388 * ITM_AMU	isotope mass
ITM_MASS_Pm_126	125.95752 * ITM_AMU	isotope mass
ITM_MASS_Pm_127	126.95163 * ITM_AMU	isotope mass
ITM_MASS_Pm_128	127.94842 * ITM_AMU	isotope mass
ITM_MASS_Pm_129	128.94316 * ITM_AMU	isotope mass
ITM_MASS_Pm_130	129.94045 * ITM_AMU	isotope mass
ITM_MASS_Pm_131	130.93587 * ITM_AMU	isotope mass
ITM_MASS_Pm_132	131.93375 * ITM_AMU	isotope mass
ITM_MASS_Pm_133	132.929780 * ITM_AMU	isotope mass
ITM_MASS_Pm_134	133.928350 * ITM_AMU	isotope mass
ITM_MASS_Pm_135	134.924880 * ITM_AMU	isotope mass
ITM_MASS_Pm_136	135.923570 * ITM_AMU	isotope mass
ITM_MASS_Pm_137	136.920479 * ITM_AMU	isotope mass
ITM_MASS_Pm_138	137.919548 * ITM_AMU	isotope mass
ITM_MASS_Pm_139	138.916804 * ITM_AMU	isotope mass
ITM_MASS_Pm_140	139.916040 * ITM_AMU	isotope mass
ITM_MASS_Pm_141	140.913555 * ITM_AMU	isotope mass
ITM_MASS_Pm_142	141.912874 * ITM_AMU	isotope mass
ITM_MASS_Pm_143	142.910933 * ITM_AMU	isotope mass
ITM_MASS_Pm_144	143.912591 * ITM_AMU	isotope mass
ITM_MASS_Pm_145	144.912749 * ITM_AMU	isotope mass
ITM_MASS_Pm_146	145.914696 * ITM_AMU	isotope mass
ITM_MASS_Pm_147	146.9151385 * ITM_AMU	isotope mass
ITM_MASS_Pm_148	147.917475 * ITM_AMU	isotope mass
ITM_MASS_Pm_149	148.918334 * ITM_AMU	isotope mass
ITM_MASS_Pm_150	149.920984 * ITM_AMU	isotope mass
ITM_MASS_Pm_151	150.921207 * ITM_AMU	isotope mass
ITM_MASS_Pm_152	151.923497 * ITM_AMU	isotope mass
ITM_MASS_Pm_153	152.924117 * ITM_AMU	isotope mass
ITM_MASS_Pm_154	153.926460 * ITM_AMU	isotope mass
ITM_MASS_Pm_155	154.928100 * ITM_AMU	isotope mass
ITM_MASS_Pm_156	155.931060 * ITM_AMU	isotope mass
ITM_MASS_Pm_157	156.93304 * ITM_AMU	isotope mass
ITM_MASS_Pm_158	157.93656 * ITM_AMU	isotope mass
ITM_MASS_Pm_159	158.93897 * ITM_AMU	isotope mass
ITM_MASS_Pm_160	159.94299 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Pm_161	160.94586 * ITM_AMU	isotope mass
ITM_MASS_Pm_162	161.95029 * ITM_AMU	isotope mass
ITM_MASS_Pm_163	162.95368 * ITM_AMU	isotope mass
ITM_MASS_Sm_128	127.95808 * ITM_AMU	isotope mass
ITM_MASS_Sm_129	128.95464 * ITM_AMU	isotope mass
ITM_MASS_Sm_130	129.94892 * ITM_AMU	isotope mass
ITM_MASS_Sm_131	130.94611 * ITM_AMU	isotope mass
ITM_MASS_Sm_132	131.94069 * ITM_AMU	isotope mass
ITM_MASS_Sm_133	132.93867 * ITM_AMU	isotope mass
ITM_MASS_Sm_134	133.93397 * ITM_AMU	isotope mass
ITM_MASS_Sm_135	134.93252 * ITM_AMU	isotope mass
ITM_MASS_Sm_136	135.928276 * ITM_AMU	isotope mass
ITM_MASS_Sm_137	136.926970 * ITM_AMU	isotope mass
ITM_MASS_Sm_138	137.923244 * ITM_AMU	isotope mass
ITM_MASS_Sm_139	138.922297 * ITM_AMU	isotope mass
ITM_MASS_Sm_140	139.918995 * ITM_AMU	isotope mass
ITM_MASS_Sm_141	140.918476 * ITM_AMU	isotope mass
ITM_MASS_Sm_142	141.915198 * ITM_AMU	isotope mass
ITM_MASS_Sm_143	142.914628 * ITM_AMU	isotope mass
ITM_MASS_Sm_144	143.911999 * ITM_AMU	isotope mass
ITM_MASS_Sm_145	144.913410 * ITM_AMU	isotope mass
ITM_MASS_Sm_146	145.913041 * ITM_AMU	isotope mass
ITM_MASS_Sm_147	146.9148979 * ITM_AMU	isotope mass
ITM_MASS_Sm_148	147.9148227 * ITM_AMU	isotope mass
ITM_MASS_Sm_149	148.9171847 * ITM_AMU	isotope mass
ITM_MASS_Sm_150	149.9172755 * ITM_AMU	isotope mass
ITM_MASS_Sm_151	150.9199324 * ITM_AMU	isotope mass
ITM_MASS_Sm_152	151.9197324 * ITM_AMU	isotope mass
ITM_MASS_Sm_153	152.9220974 * ITM_AMU	isotope mass
ITM_MASS_Sm_154	153.9222093 * ITM_AMU	isotope mass
ITM_MASS_Sm_155	154.9246402 * ITM_AMU	isotope mass
ITM_MASS_Sm_156	155.925528 * ITM_AMU	isotope mass
ITM_MASS_Sm_157	156.928360 * ITM_AMU	isotope mass
ITM_MASS_Sm_158	157.929990 * ITM_AMU	isotope mass
ITM_MASS_Sm_159	158.93321 * ITM_AMU	isotope mass
ITM_MASS_Sm_160	159.93514 * ITM_AMU	isotope mass
ITM_MASS_Sm_161	160.93883 * ITM_AMU	isotope mass
ITM_MASS_Sm_162	161.94122 * ITM_AMU	isotope mass
ITM_MASS_Sm_163	162.94536 * ITM_AMU	isotope mass
ITM_MASS_Sm_164	163.94828 * ITM_AMU	isotope mass
ITM_MASS_Sm_165	164.95298 * ITM_AMU	isotope mass
ITM_MASS_Eu_130	129.96357 * ITM_AMU	isotope mass
ITM_MASS_Eu_131	130.95775 * ITM_AMU	isotope mass
ITM_MASS_Eu_132	131.95437 * ITM_AMU	isotope mass
ITM_MASS_Eu_133	132.94924 * ITM_AMU	isotope mass
ITM_MASS_Eu_134	133.94651 * ITM_AMU	isotope mass
ITM_MASS_Eu_135	134.94182 * ITM_AMU	isotope mass
ITM_MASS_Eu_136	135.93960 * ITM_AMU	isotope mass
ITM_MASS_Eu_137	136.93557 * ITM_AMU	isotope mass
ITM_MASS_Eu_138	137.933710 * ITM_AMU	isotope mass
ITM_MASS_Eu_139	138.929792 * ITM_AMU	isotope mass
ITM_MASS_Eu_140	139.928090 * ITM_AMU	isotope mass
ITM_MASS_Eu_141	140.924931 * ITM_AMU	isotope mass
ITM_MASS_Eu_142	141.923430 * ITM_AMU	isotope mass
ITM_MASS_Eu_143	142.920298 * ITM_AMU	isotope mass
ITM_MASS_Eu_144	143.918817 * ITM_AMU	isotope mass
ITM_MASS_Eu_145	144.916265 * ITM_AMU	isotope mass
ITM_MASS_Eu_146	145.917206 * ITM_AMU	isotope mass
ITM_MASS_Eu_147	146.916746 * ITM_AMU	isotope mass
ITM_MASS_Eu_148	147.918086 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Eu_149	148.917931 * ITM_AMU	isotope mass
ITM_MASS_Eu_150	149.919702 * ITM_AMU	isotope mass
ITM_MASS_Eu_151	150.9198502 * ITM_AMU	isotope mass
ITM_MASS_Eu_152	151.9217445 * ITM_AMU	isotope mass
ITM_MASS_Eu_153	152.9212303 * ITM_AMU	isotope mass
ITM_MASS_Eu_154	153.9229792 * ITM_AMU	isotope mass
ITM_MASS_Eu_155	154.9228933 * ITM_AMU	isotope mass
ITM_MASS_Eu_156	155.924752 * ITM_AMU	isotope mass
ITM_MASS_Eu_157	156.925424 * ITM_AMU	isotope mass
ITM_MASS_Eu_158	157.927850 * ITM_AMU	isotope mass
ITM_MASS_Eu_159	158.929089 * ITM_AMU	isotope mass
ITM_MASS_Eu_160	159.93197 * ITM_AMU	isotope mass
ITM_MASS_Eu_161	160.93368 * ITM_AMU	isotope mass
ITM_MASS_Eu_162	161.93704 * ITM_AMU	isotope mass
ITM_MASS_Eu_163	162.93921 * ITM_AMU	isotope mass
ITM_MASS_Eu_164	163.94299 * ITM_AMU	isotope mass
ITM_MASS_Eu_165	164.94572 * ITM_AMU	isotope mass
ITM_MASS_Eu_166	165.94997 * ITM_AMU	isotope mass
ITM_MASS_Eu_167	166.95321 * ITM_AMU	isotope mass
ITM_MASS_Gd_134	133.95537 * ITM_AMU	isotope mass
ITM_MASS_Gd_135	134.95257 * ITM_AMU	isotope mass
ITM_MASS_Gd_136	135.94734 * ITM_AMU	isotope mass
ITM_MASS_Gd_137	136.94502 * ITM_AMU	isotope mass
ITM_MASS_Gd_138	137.94012 * ITM_AMU	isotope mass
ITM_MASS_Gd_139	138.93824 * ITM_AMU	isotope mass
ITM_MASS_Gd_140	139.933670 * ITM_AMU	isotope mass
ITM_MASS_Gd_141	140.932126 * ITM_AMU	isotope mass
ITM_MASS_Gd_142	141.928120 * ITM_AMU	isotope mass
ITM_MASS_Gd_143	142.92675 * ITM_AMU	isotope mass
ITM_MASS_Gd_144	143.922960 * ITM_AMU	isotope mass
ITM_MASS_Gd_145	144.921709 * ITM_AMU	isotope mass
ITM_MASS_Gd_146	145.918311 * ITM_AMU	isotope mass
ITM_MASS_Gd_147	146.919094 * ITM_AMU	isotope mass
ITM_MASS_Gd_148	147.918115 * ITM_AMU	isotope mass
ITM_MASS_Gd_149	148.919341 * ITM_AMU	isotope mass
ITM_MASS_Gd_150	149.918659 * ITM_AMU	isotope mass
ITM_MASS_Gd_151	150.920348 * ITM_AMU	isotope mass
ITM_MASS_Gd_152	151.9197910 * ITM_AMU	isotope mass
ITM_MASS_Gd_153	152.9217495 * ITM_AMU	isotope mass
ITM_MASS_Gd_154	153.9208656 * ITM_AMU	isotope mass
ITM_MASS_Gd_155	154.9226220 * ITM_AMU	isotope mass
ITM_MASS_Gd_156	155.9221227 * ITM_AMU	isotope mass
ITM_MASS_Gd_157	156.9239601 * ITM_AMU	isotope mass
ITM_MASS_Gd_158	157.9241039 * ITM_AMU	isotope mass
ITM_MASS_Gd_159	158.9263887 * ITM_AMU	isotope mass
ITM_MASS_Gd_160	159.9270541 * ITM_AMU	isotope mass
ITM_MASS_Gd_161	160.9296692 * ITM_AMU	isotope mass
ITM_MASS_Gd_162	161.930985 * ITM_AMU	isotope mass
ITM_MASS_Gd_163	162.93399 * ITM_AMU	isotope mass
ITM_MASS_Gd_164	163.93586 * ITM_AMU	isotope mass
ITM_MASS_Gd_165	164.93938 * ITM_AMU	isotope mass
ITM_MASS_Gd_166	165.94160 * ITM_AMU	isotope mass
ITM_MASS_Gd_167	166.94557 * ITM_AMU	isotope mass
ITM_MASS_Gd_168	167.94836 * ITM_AMU	isotope mass
ITM_MASS_Gd_169	168.95287 * ITM_AMU	isotope mass
ITM_MASS_Tb_136	135.96138 * ITM_AMU	isotope mass
ITM_MASS_Tb_137	136.95598 * ITM_AMU	isotope mass
ITM_MASS_Tb_138	137.95316 * ITM_AMU	isotope mass
ITM_MASS_Tb_139	138.94829 * ITM_AMU	isotope mass
ITM_MASS_Tb_140	139.94581 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Tb_141	140.94145 * ITM_AMU	isotope mass
ITM_MASS_Tb_142	141.93874 * ITM_AMU	isotope mass
ITM_MASS_Tb_143	142.935120 * ITM_AMU	isotope mass
ITM_MASS_Tb_144	143.933050 * ITM_AMU	isotope mass
ITM_MASS_Tb_145	144.929270 * ITM_AMU	isotope mass
ITM_MASS_Tb_146	145.927250 * ITM_AMU	isotope mass
ITM_MASS_Tb_147	146.924045 * ITM_AMU	isotope mass
ITM_MASS_Tb_148	147.924272 * ITM_AMU	isotope mass
ITM_MASS_Tb_149	148.923246 * ITM_AMU	isotope mass
ITM_MASS_Tb_150	149.923660 * ITM_AMU	isotope mass
ITM_MASS_Tb_151	150.923103 * ITM_AMU	isotope mass
ITM_MASS_Tb_152	151.924070 * ITM_AMU	isotope mass
ITM_MASS_Tb_153	152.923435 * ITM_AMU	isotope mass
ITM_MASS_Tb_154	153.924680 * ITM_AMU	isotope mass
ITM_MASS_Tb_155	154.923505 * ITM_AMU	isotope mass
ITM_MASS_Tb_156	155.924747 * ITM_AMU	isotope mass
ITM_MASS_Tb_157	156.9240246 * ITM_AMU	isotope mass
ITM_MASS_Tb_158	157.9254131 * ITM_AMU	isotope mass
ITM_MASS_Tb_159	158.9253468 * ITM_AMU	isotope mass
ITM_MASS_Tb_160	159.9271676 * ITM_AMU	isotope mass
ITM_MASS_Tb_161	160.9275699 * ITM_AMU	isotope mass
ITM_MASS_Tb_162	161.929490 * ITM_AMU	isotope mass
ITM_MASS_Tb_163	162.930648 * ITM_AMU	isotope mass
ITM_MASS_Tb_164	163.93335 * ITM_AMU	isotope mass
ITM_MASS_Tb_165	164.93488 * ITM_AMU	isotope mass
ITM_MASS_Tb_166	165.93799 * ITM_AMU	isotope mass
ITM_MASS_Tb_167	166.94005 * ITM_AMU	isotope mass
ITM_MASS_Tb_168	167.94364 * ITM_AMU	isotope mass
ITM_MASS_Tb_169	168.94622 * ITM_AMU	isotope mass
ITM_MASS_Tb_170	169.95025 * ITM_AMU	isotope mass
ITM_MASS_Tb_171	170.95330 * ITM_AMU	isotope mass
ITM_MASS_Dy_138	137.96249 * ITM_AMU	isotope mass
ITM_MASS_Dy_139	138.95954 * ITM_AMU	isotope mass
ITM_MASS_Dy_140	139.95401 * ITM_AMU	isotope mass
ITM_MASS_Dy_141	140.95135 * ITM_AMU	isotope mass
ITM_MASS_Dy_142	141.94637 * ITM_AMU	isotope mass
ITM_MASS_Dy_143	142.94383 * ITM_AMU	isotope mass
ITM_MASS_Dy_144	143.939250 * ITM_AMU	isotope mass
ITM_MASS_Dy_145	144.937430 * ITM_AMU	isotope mass
ITM_MASS_Dy_146	145.932845 * ITM_AMU	isotope mass
ITM_MASS_Dy_147	146.931092 * ITM_AMU	isotope mass
ITM_MASS_Dy_148	147.927150 * ITM_AMU	isotope mass
ITM_MASS_Dy_149	148.927305 * ITM_AMU	isotope mass
ITM_MASS_Dy_150	149.925585 * ITM_AMU	isotope mass
ITM_MASS_Dy_151	150.926185 * ITM_AMU	isotope mass
ITM_MASS_Dy_152	151.924718 * ITM_AMU	isotope mass
ITM_MASS_Dy_153	152.925765 * ITM_AMU	isotope mass
ITM_MASS_Dy_154	153.924424 * ITM_AMU	isotope mass
ITM_MASS_Dy_155	154.925754 * ITM_AMU	isotope mass
ITM_MASS_Dy_156	155.924283 * ITM_AMU	isotope mass
ITM_MASS_Dy_157	156.925466 * ITM_AMU	isotope mass
ITM_MASS_Dy_158	157.924409 * ITM_AMU	isotope mass
ITM_MASS_Dy_159	158.9257392 * ITM_AMU	isotope mass
ITM_MASS_Dy_160	159.9251975 * ITM_AMU	isotope mass
ITM_MASS_Dy_161	160.9269334 * ITM_AMU	isotope mass
ITM_MASS_Dy_162	161.9267984 * ITM_AMU	isotope mass
ITM_MASS_Dy_163	162.9287312 * ITM_AMU	isotope mass
ITM_MASS_Dy_164	163.9291748 * ITM_AMU	isotope mass
ITM_MASS_Dy_165	164.9317033 * ITM_AMU	isotope mass
ITM_MASS_Dy_166	165.9328067 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Dy_167	166.935660 * ITM_AMU	isotope mass
ITM_MASS_Dy_168	167.93713 * ITM_AMU	isotope mass
ITM_MASS_Dy_169	168.94031 * ITM_AMU	isotope mass
ITM_MASS_Dy_170	169.94239 * ITM_AMU	isotope mass
ITM_MASS_Dy_171	170.94620 * ITM_AMU	isotope mass
ITM_MASS_Dy_172	171.94876 * ITM_AMU	isotope mass
ITM_MASS_Dy_173	172.95300 * ITM_AMU	isotope mass
ITM_MASS_Ho_140	139.96854 * ITM_AMU	isotope mass
ITM_MASS_Ho_141	140.96310 * ITM_AMU	isotope mass
ITM_MASS_Ho_142	141.95977 * ITM_AMU	isotope mass
ITM_MASS_Ho_143	142.95461 * ITM_AMU	isotope mass
ITM_MASS_Ho_144	143.95148 * ITM_AMU	isotope mass
ITM_MASS_Ho_145	144.94720 * ITM_AMU	isotope mass
ITM_MASS_Ho_146	145.94464 * ITM_AMU	isotope mass
ITM_MASS_Ho_147	146.940060 * ITM_AMU	isotope mass
ITM_MASS_Ho_148	147.93772 * ITM_AMU	isotope mass
ITM_MASS_Ho_149	148.933775 * ITM_AMU	isotope mass
ITM_MASS_Ho_150	149.933496 * ITM_AMU	isotope mass
ITM_MASS_Ho_151	150.931688 * ITM_AMU	isotope mass
ITM_MASS_Ho_152	151.931714 * ITM_AMU	isotope mass
ITM_MASS_Ho_153	152.930199 * ITM_AMU	isotope mass
ITM_MASS_Ho_154	153.930602 * ITM_AMU	isotope mass
ITM_MASS_Ho_155	154.929103 * ITM_AMU	isotope mass
ITM_MASS_Ho_156	155.929840 * ITM_AMU	isotope mass
ITM_MASS_Ho_157	156.928256 * ITM_AMU	isotope mass
ITM_MASS_Ho_158	157.928941 * ITM_AMU	isotope mass
ITM_MASS_Ho_159	158.927712 * ITM_AMU	isotope mass
ITM_MASS_Ho_160	159.928729 * ITM_AMU	isotope mass
ITM_MASS_Ho_161	160.927855 * ITM_AMU	isotope mass
ITM_MASS_Ho_162	161.929096 * ITM_AMU	isotope mass
ITM_MASS_Ho_163	162.9287339 * ITM_AMU	isotope mass
ITM_MASS_Ho_164	163.9302335 * ITM_AMU	isotope mass
ITM_MASS_Ho_165	164.9303221 * ITM_AMU	isotope mass
ITM_MASS_Ho_166	165.9322842 * ITM_AMU	isotope mass
ITM_MASS_Ho_167	166.933133 * ITM_AMU	isotope mass
ITM_MASS_Ho_168	167.935520 * ITM_AMU	isotope mass
ITM_MASS_Ho_169	168.936872 * ITM_AMU	isotope mass
ITM_MASS_Ho_170	169.939620 * ITM_AMU	isotope mass
ITM_MASS_Ho_171	170.94147 * ITM_AMU	isotope mass
ITM_MASS_Ho_172	171.94482 * ITM_AMU	isotope mass
ITM_MASS_Ho_173	172.94729 * ITM_AMU	isotope mass
ITM_MASS_Ho_174	173.95115 * ITM_AMU	isotope mass
ITM_MASS_Ho_175	174.95405 * ITM_AMU	isotope mass
ITM_MASS_Er_143	142.96634 * ITM_AMU	isotope mass
ITM_MASS_Er_144	143.96038 * ITM_AMU	isotope mass
ITM_MASS_Er_145	144.95739 * ITM_AMU	isotope mass
ITM_MASS_Er_146	145.95200 * ITM_AMU	isotope mass
ITM_MASS_Er_147	146.94949 * ITM_AMU	isotope mass
ITM_MASS_Er_148	147.94455 * ITM_AMU	isotope mass
ITM_MASS_Er_149	148.942310 * ITM_AMU	isotope mass
ITM_MASS_Er_150	149.937914 * ITM_AMU	isotope mass
ITM_MASS_Er_151	150.937449 * ITM_AMU	isotope mass
ITM_MASS_Er_152	151.935050 * ITM_AMU	isotope mass
ITM_MASS_Er_153	152.935063 * ITM_AMU	isotope mass
ITM_MASS_Er_154	153.932783 * ITM_AMU	isotope mass
ITM_MASS_Er_155	154.933209 * ITM_AMU	isotope mass
ITM_MASS_Er_156	155.931065 * ITM_AMU	isotope mass
ITM_MASS_Er_157	156.931920 * ITM_AMU	isotope mass
ITM_MASS_Er_158	157.929893 * ITM_AMU	isotope mass
ITM_MASS_Er_159	158.930684 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Er_160	159.929083 * ITM_AMU	isotope mass
ITM_MASS_Er_161	160.929995 * ITM_AMU	isotope mass
ITM_MASS_Er_162	161.928778 * ITM_AMU	isotope mass
ITM_MASS_Er_163	162.930033 * ITM_AMU	isotope mass
ITM_MASS_Er_164	163.929200 * ITM_AMU	isotope mass
ITM_MASS_Er_165	164.930726 * ITM_AMU	isotope mass
ITM_MASS_Er_166	165.9302931 * ITM_AMU	isotope mass
ITM_MASS_Er_167	166.9320482 * ITM_AMU	isotope mass
ITM_MASS_Er_168	167.9323702 * ITM_AMU	isotope mass
ITM_MASS_Er_169	168.9345904 * ITM_AMU	isotope mass
ITM_MASS_Er_170	169.9354643 * ITM_AMU	isotope mass
ITM_MASS_Er_171	170.9380298 * ITM_AMU	isotope mass
ITM_MASS_Er_172	171.939356 * ITM_AMU	isotope mass
ITM_MASS_Er_173	172.94240 * ITM_AMU	isotope mass
ITM_MASS_Er_174	173.94423 * ITM_AMU	isotope mass
ITM_MASS_Er_175	174.94777 * ITM_AMU	isotope mass
ITM_MASS_Er_176	175.95008 * ITM_AMU	isotope mass
ITM_MASS_Er_177	176.95405 * ITM_AMU	isotope mass
ITM_MASS_Tm_145	144.97007 * ITM_AMU	isotope mass
ITM_MASS_Tm_146	145.96643 * ITM_AMU	isotope mass
ITM_MASS_Tm_147	146.96096 * ITM_AMU	isotope mass
ITM_MASS_Tm_148	147.95784 * ITM_AMU	isotope mass
ITM_MASS_Tm_149	148.95272 * ITM_AMU	isotope mass
ITM_MASS_Tm_150	149.94996 * ITM_AMU	isotope mass
ITM_MASS_Tm_151	150.945483 * ITM_AMU	isotope mass
ITM_MASS_Tm_152	151.944420 * ITM_AMU	isotope mass
ITM_MASS_Tm_153	152.942012 * ITM_AMU	isotope mass
ITM_MASS_Tm_154	153.941568 * ITM_AMU	isotope mass
ITM_MASS_Tm_155	154.939199 * ITM_AMU	isotope mass
ITM_MASS_Tm_156	155.938980 * ITM_AMU	isotope mass
ITM_MASS_Tm_157	156.936970 * ITM_AMU	isotope mass
ITM_MASS_Tm_158	157.936980 * ITM_AMU	isotope mass
ITM_MASS_Tm_159	158.934980 * ITM_AMU	isotope mass
ITM_MASS_Tm_160	159.935260 * ITM_AMU	isotope mass
ITM_MASS_Tm_161	160.933550 * ITM_AMU	isotope mass
ITM_MASS_Tm_162	161.933995 * ITM_AMU	isotope mass
ITM_MASS_Tm_163	162.932651 * ITM_AMU	isotope mass
ITM_MASS_Tm_164	163.933560 * ITM_AMU	isotope mass
ITM_MASS_Tm_165	164.932435 * ITM_AMU	isotope mass
ITM_MASS_Tm_166	165.933554 * ITM_AMU	isotope mass
ITM_MASS_Tm_167	166.9328516 * ITM_AMU	isotope mass
ITM_MASS_Tm_168	167.934173 * ITM_AMU	isotope mass
ITM_MASS_Tm_169	168.9342133 * ITM_AMU	isotope mass
ITM_MASS_Tm_170	169.9358014 * ITM_AMU	isotope mass
ITM_MASS_Tm_171	170.9364294 * ITM_AMU	isotope mass
ITM_MASS_Tm_172	171.938400 * ITM_AMU	isotope mass
ITM_MASS_Tm_173	172.939604 * ITM_AMU	isotope mass
ITM_MASS_Tm_174	173.942170 * ITM_AMU	isotope mass
ITM_MASS_Tm_175	174.943840 * ITM_AMU	isotope mass
ITM_MASS_Tm_176	175.94699 * ITM_AMU	isotope mass
ITM_MASS_Tm_177	176.94904 * ITM_AMU	isotope mass
ITM_MASS_Tm_178	177.95264 * ITM_AMU	isotope mass
ITM_MASS_Tm_179	178.95534 * ITM_AMU	isotope mass
ITM_MASS_Yb_148	147.96742 * ITM_AMU	isotope mass
ITM_MASS_Yb_149	148.96404 * ITM_AMU	isotope mass
ITM_MASS_Yb_150	149.95842 * ITM_AMU	isotope mass
ITM_MASS_Yb_151	150.95540 * ITM_AMU	isotope mass
ITM_MASS_Yb_152	151.95029 * ITM_AMU	isotope mass
ITM_MASS_Yb_153	152.94948 * ITM_AMU	isotope mass
ITM_MASS_Yb_154	153.946394 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Yb_155	154.945782 * ITM_AMU	isotope mass
ITM_MASS_Yb_156	155.942818 * ITM_AMU	isotope mass
ITM_MASS_Yb_157	156.942628 * ITM_AMU	isotope mass
ITM_MASS_Yb_158	157.939866 * ITM_AMU	isotope mass
ITM_MASS_Yb_159	158.940050 * ITM_AMU	isotope mass
ITM_MASS_Yb_160	159.937552 * ITM_AMU	isotope mass
ITM_MASS_Yb_161	160.937902 * ITM_AMU	isotope mass
ITM_MASS_Yb_162	161.935768 * ITM_AMU	isotope mass
ITM_MASS_Yb_163	162.936334 * ITM_AMU	isotope mass
ITM_MASS_Yb_164	163.934489 * ITM_AMU	isotope mass
ITM_MASS_Yb_165	164.935280 * ITM_AMU	isotope mass
ITM_MASS_Yb_166	165.933882 * ITM_AMU	isotope mass
ITM_MASS_Yb_167	166.934950 * ITM_AMU	isotope mass
ITM_MASS_Yb_168	167.933897 * ITM_AMU	isotope mass
ITM_MASS_Yb_169	168.935190 * ITM_AMU	isotope mass
ITM_MASS_Yb_170	169.9347618 * ITM_AMU	isotope mass
ITM_MASS_Yb_171	170.9363258 * ITM_AMU	isotope mass
ITM_MASS_Yb_172	171.9363815 * ITM_AMU	isotope mass
ITM_MASS_Yb_173	172.9382108 * ITM_AMU	isotope mass
ITM_MASS_Yb_174	173.9388621 * ITM_AMU	isotope mass
ITM_MASS_Yb_175	174.9412765 * ITM_AMU	isotope mass
ITM_MASS_Yb_176	175.9425717 * ITM_AMU	isotope mass
ITM_MASS_Yb_177	176.9452608 * ITM_AMU	isotope mass
ITM_MASS_Yb_178	177.946647 * ITM_AMU	isotope mass
ITM_MASS_Yb_179	178.95017 * ITM_AMU	isotope mass
ITM_MASS_Yb_180	179.95233 * ITM_AMU	isotope mass
ITM_MASS_Yb_181	180.95615 * ITM_AMU	isotope mass
ITM_MASS_Lu_150	149.97323 * ITM_AMU	isotope mass
ITM_MASS_Lu_151	150.96758 * ITM_AMU	isotope mass
ITM_MASS_Lu_152	151.96412 * ITM_AMU	isotope mass
ITM_MASS_Lu_153	152.95877 * ITM_AMU	isotope mass
ITM_MASS_Lu_154	153.95752 * ITM_AMU	isotope mass
ITM_MASS_Lu_155	154.954316 * ITM_AMU	isotope mass
ITM_MASS_Lu_156	155.953030 * ITM_AMU	isotope mass
ITM_MASS_Lu_157	156.950098 * ITM_AMU	isotope mass
ITM_MASS_Lu_158	157.949313 * ITM_AMU	isotope mass
ITM_MASS_Lu_159	158.946630 * ITM_AMU	isotope mass
ITM_MASS_Lu_160	159.946030 * ITM_AMU	isotope mass
ITM_MASS_Lu_161	160.943570 * ITM_AMU	isotope mass
ITM_MASS_Lu_162	161.943280 * ITM_AMU	isotope mass
ITM_MASS_Lu_163	162.941180 * ITM_AMU	isotope mass
ITM_MASS_Lu_164	163.941340 * ITM_AMU	isotope mass
ITM_MASS_Lu_165	164.939407 * ITM_AMU	isotope mass
ITM_MASS_Lu_166	165.939860 * ITM_AMU	isotope mass
ITM_MASS_Lu_167	166.938270 * ITM_AMU	isotope mass
ITM_MASS_Lu_168	167.938740 * ITM_AMU	isotope mass
ITM_MASS_Lu_169	168.937651 * ITM_AMU	isotope mass
ITM_MASS_Lu_170	169.938475 * ITM_AMU	isotope mass
ITM_MASS_Lu_171	170.9379131 * ITM_AMU	isotope mass
ITM_MASS_Lu_172	171.939086 * ITM_AMU	isotope mass
ITM_MASS_Lu_173	172.9389306 * ITM_AMU	isotope mass
ITM_MASS_Lu_174	173.9403375 * ITM_AMU	isotope mass
ITM_MASS_Lu_175	174.9407718 * ITM_AMU	isotope mass
ITM_MASS_Lu_176	175.9426863 * ITM_AMU	isotope mass
ITM_MASS_Lu_177	176.9437581 * ITM_AMU	isotope mass
ITM_MASS_Lu_178	177.945955 * ITM_AMU	isotope mass
ITM_MASS_Lu_179	178.947327 * ITM_AMU	isotope mass
ITM_MASS_Lu_180	179.949880 * ITM_AMU	isotope mass
ITM_MASS_Lu_181	180.95197 * ITM_AMU	isotope mass
ITM_MASS_Lu_182	181.95504 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Lu_183	182.95757 * ITM_AMU	isotope mass
ITM_MASS_Lu_184	183.96091 * ITM_AMU	isotope mass
ITM_MASS_Hf_153	152.97069 * ITM_AMU	isotope mass
ITM_MASS_Hf_154	153.96486 * ITM_AMU	isotope mass
ITM_MASS_Hf_155	154.96339 * ITM_AMU	isotope mass
ITM_MASS_Hf_156	155.95936 * ITM_AMU	isotope mass
ITM_MASS_Hf_157	156.95840 * ITM_AMU	isotope mass
ITM_MASS_Hf_158	157.954799 * ITM_AMU	isotope mass
ITM_MASS_Hf_159	158.953995 * ITM_AMU	isotope mass
ITM_MASS_Hf_160	159.950684 * ITM_AMU	isotope mass
ITM_MASS_Hf_161	160.950275 * ITM_AMU	isotope mass
ITM_MASS_Hf_162	161.947210 * ITM_AMU	isotope mass
ITM_MASS_Hf_163	162.947090 * ITM_AMU	isotope mass
ITM_MASS_Hf_164	163.944367 * ITM_AMU	isotope mass
ITM_MASS_Hf_165	164.944570 * ITM_AMU	isotope mass
ITM_MASS_Hf_166	165.942180 * ITM_AMU	isotope mass
ITM_MASS_Hf_167	166.942600 * ITM_AMU	isotope mass
ITM_MASS_Hf_168	167.940570 * ITM_AMU	isotope mass
ITM_MASS_Hf_169	168.941260 * ITM_AMU	isotope mass
ITM_MASS_Hf_170	169.939610 * ITM_AMU	isotope mass
ITM_MASS_Hf_171	170.940490 * ITM_AMU	isotope mass
ITM_MASS_Hf_172	171.939448 * ITM_AMU	isotope mass
ITM_MASS_Hf_173	172.940510 * ITM_AMU	isotope mass
ITM_MASS_Hf_174	173.940046 * ITM_AMU	isotope mass
ITM_MASS_Hf_175	174.941509 * ITM_AMU	isotope mass
ITM_MASS_Hf_176	175.9414086 * ITM_AMU	isotope mass
ITM_MASS_Hf_177	176.9432207 * ITM_AMU	isotope mass
ITM_MASS_Hf_178	177.9436988 * ITM_AMU	isotope mass
ITM_MASS_Hf_179	178.9458161 * ITM_AMU	isotope mass
ITM_MASS_Hf_180	179.9465500 * ITM_AMU	isotope mass
ITM_MASS_Hf_181	180.9491012 * ITM_AMU	isotope mass
ITM_MASS_Hf_182	181.950554 * ITM_AMU	isotope mass
ITM_MASS_Hf_183	182.953530 * ITM_AMU	isotope mass
ITM_MASS_Hf_184	183.955450 * ITM_AMU	isotope mass
ITM_MASS_Hf_185	184.95882 * ITM_AMU	isotope mass
ITM_MASS_Hf_186	185.96089 * ITM_AMU	isotope mass
ITM_MASS_Hf_187	186.96459 * ITM_AMU	isotope mass
ITM_MASS_Hf_188	187.96685 * ITM_AMU	isotope mass
ITM_MASS_Ta_155	154.97459 * ITM_AMU	isotope mass
ITM_MASS_Ta_156	155.97230 * ITM_AMU	isotope mass
ITM_MASS_Ta_157	156.96819 * ITM_AMU	isotope mass
ITM_MASS_Ta_158	157.96670 * ITM_AMU	isotope mass
ITM_MASS_Ta_159	158.963018 * ITM_AMU	isotope mass
ITM_MASS_Ta_160	159.96149 * ITM_AMU	isotope mass
ITM_MASS_Ta_161	160.958420 * ITM_AMU	isotope mass
ITM_MASS_Ta_162	161.957290 * ITM_AMU	isotope mass
ITM_MASS_Ta_163	162.954330 * ITM_AMU	isotope mass
ITM_MASS_Ta_164	163.953530 * ITM_AMU	isotope mass
ITM_MASS_Ta_165	164.950773 * ITM_AMU	isotope mass
ITM_MASS_Ta_166	165.950510 * ITM_AMU	isotope mass
ITM_MASS_Ta_167	166.948090 * ITM_AMU	isotope mass
ITM_MASS_Ta_168	167.948050 * ITM_AMU	isotope mass
ITM_MASS_Ta_169	168.946010 * ITM_AMU	isotope mass
ITM_MASS_Ta_170	169.946180 * ITM_AMU	isotope mass
ITM_MASS_Ta_171	170.944480 * ITM_AMU	isotope mass
ITM_MASS_Ta_172	171.944900 * ITM_AMU	isotope mass
ITM_MASS_Ta_173	172.943750 * ITM_AMU	isotope mass
ITM_MASS_Ta_174	173.944450 * ITM_AMU	isotope mass
ITM_MASS_Ta_175	174.943740 * ITM_AMU	isotope mass
ITM_MASS_Ta_176	175.944860 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ta_177	176.944472 * ITM_AMU	isotope mass
ITM_MASS_Ta_178	177.945778 * ITM_AMU	isotope mass
ITM_MASS_Ta_179	178.9459295 * ITM_AMU	isotope mass
ITM_MASS_Ta_180	179.9474648 * ITM_AMU	isotope mass
ITM_MASS_Ta_181	180.9479958 * ITM_AMU	isotope mass
ITM_MASS_Ta_182	181.9501518 * ITM_AMU	isotope mass
ITM_MASS_Ta_183	182.9513726 * ITM_AMU	isotope mass
ITM_MASS_Ta_184	183.954008 * ITM_AMU	isotope mass
ITM_MASS_Ta_185	184.955559 * ITM_AMU	isotope mass
ITM_MASS_Ta_186	185.958550 * ITM_AMU	isotope mass
ITM_MASS_Ta_187	186.96053 * ITM_AMU	isotope mass
ITM_MASS_Ta_188	187.96370 * ITM_AMU	isotope mass
ITM_MASS_Ta_189	188.96583 * ITM_AMU	isotope mass
ITM_MASS_Ta_190	189.96923 * ITM_AMU	isotope mass
ITM_MASS_W_158	157.97456 * ITM_AMU	isotope mass
ITM_MASS_W_159	158.97292 * ITM_AMU	isotope mass
ITM_MASS_W_160	159.96848 * ITM_AMU	isotope mass
ITM_MASS_W_161	160.96736 * ITM_AMU	isotope mass
ITM_MASS_W_162	161.963497 * ITM_AMU	isotope mass
ITM_MASS_W_163	162.962520 * ITM_AMU	isotope mass
ITM_MASS_W_164	163.958954 * ITM_AMU	isotope mass
ITM_MASS_W_165	164.958280 * ITM_AMU	isotope mass
ITM_MASS_W_166	165.955027 * ITM_AMU	isotope mass
ITM_MASS_W_167	166.954816 * ITM_AMU	isotope mass
ITM_MASS_W_168	167.951808 * ITM_AMU	isotope mass
ITM_MASS_W_169	168.951779 * ITM_AMU	isotope mass
ITM_MASS_W_170	169.949228 * ITM_AMU	isotope mass
ITM_MASS_W_171	170.949450 * ITM_AMU	isotope mass
ITM_MASS_W_172	171.947290 * ITM_AMU	isotope mass
ITM_MASS_W_173	172.947690 * ITM_AMU	isotope mass
ITM_MASS_W_174	173.946080 * ITM_AMU	isotope mass
ITM_MASS_W_175	174.946720 * ITM_AMU	isotope mass
ITM_MASS_W_176	175.945630 * ITM_AMU	isotope mass
ITM_MASS_W_177	176.946640 * ITM_AMU	isotope mass
ITM_MASS_W_178	177.945876 * ITM_AMU	isotope mass
ITM_MASS_W_179	178.947070 * ITM_AMU	isotope mass
ITM_MASS_W_180	179.946704 * ITM_AMU	isotope mass
ITM_MASS_W_181	180.948197 * ITM_AMU	isotope mass
ITM_MASS_W_182	181.9482042 * ITM_AMU	isotope mass
ITM_MASS_W_183	182.9502230 * ITM_AMU	isotope mass
ITM_MASS_W_184	183.9509312 * ITM_AMU	isotope mass
ITM_MASS_W_185	184.9534193 * ITM_AMU	isotope mass
ITM_MASS_W_186	185.9543641 * ITM_AMU	isotope mass
ITM_MASS_W_187	186.9571605 * ITM_AMU	isotope mass
ITM_MASS_W_188	187.958489 * ITM_AMU	isotope mass
ITM_MASS_W_189	188.96191 * ITM_AMU	isotope mass
ITM_MASS_W_190	189.96318 * ITM_AMU	isotope mass
ITM_MASS_W_191	190.96660 * ITM_AMU	isotope mass
ITM_MASS_W_192	191.96817 * ITM_AMU	isotope mass
ITM_MASS_Re_160	159.98212 * ITM_AMU	isotope mass
ITM_MASS_Re_161	160.97759 * ITM_AMU	isotope mass
ITM_MASS_Re_162	161.97600 * ITM_AMU	isotope mass
ITM_MASS_Re_163	162.972081 * ITM_AMU	isotope mass
ITM_MASS_Re_164	163.97032 * ITM_AMU	isotope mass
ITM_MASS_Re_165	164.967089 * ITM_AMU	isotope mass
ITM_MASS_Re_166	165.965810 * ITM_AMU	isotope mass
ITM_MASS_Re_167	166.962600 * ITM_AMU	isotope mass
ITM_MASS_Re_168	167.961570 * ITM_AMU	isotope mass
ITM_MASS_Re_169	168.958790 * ITM_AMU	isotope mass
ITM_MASS_Re_170	169.958220 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Re_171	170.955720 * ITM_AMU	isotope mass
ITM_MASS_Re_172	171.955420 * ITM_AMU	isotope mass
ITM_MASS_Re_173	172.953240 * ITM_AMU	isotope mass
ITM_MASS_Re_174	173.953120 * ITM_AMU	isotope mass
ITM_MASS_Re_175	174.951380 * ITM_AMU	isotope mass
ITM_MASS_Re_176	175.951620 * ITM_AMU	isotope mass
ITM_MASS_Re_177	176.950330 * ITM_AMU	isotope mass
ITM_MASS_Re_178	177.950990 * ITM_AMU	isotope mass
ITM_MASS_Re_179	178.949988 * ITM_AMU	isotope mass
ITM_MASS_Re_180	179.950789 * ITM_AMU	isotope mass
ITM_MASS_Re_181	180.950068 * ITM_AMU	isotope mass
ITM_MASS_Re_182	181.95121 * ITM_AMU	isotope mass
ITM_MASS_Re_183	182.950820 * ITM_AMU	isotope mass
ITM_MASS_Re_184	183.952521 * ITM_AMU	isotope mass
ITM_MASS_Re_185	184.9529550 * ITM_AMU	isotope mass
ITM_MASS_Re_186	185.9549861 * ITM_AMU	isotope mass
ITM_MASS_Re_187	186.9557531 * ITM_AMU	isotope mass
ITM_MASS_Re_188	187.9581144 * ITM_AMU	isotope mass
ITM_MASS_Re_189	188.959229 * ITM_AMU	isotope mass
ITM_MASS_Re_190	189.96182 * ITM_AMU	isotope mass
ITM_MASS_Re_191	190.963125 * ITM_AMU	isotope mass
ITM_MASS_Re_192	191.96596 * ITM_AMU	isotope mass
ITM_MASS_Re_193	192.96747 * ITM_AMU	isotope mass
ITM_MASS_Re_194	193.97042 * ITM_AMU	isotope mass
ITM_MASS_Os_162	161.98443 * ITM_AMU	isotope mass
ITM_MASS_Os_163	162.98269 * ITM_AMU	isotope mass
ITM_MASS_Os_164	163.97804 * ITM_AMU	isotope mass
ITM_MASS_Os_165	164.97676 * ITM_AMU	isotope mass
ITM_MASS_Os_166	165.972691 * ITM_AMU	isotope mass
ITM_MASS_Os_167	166.971550 * ITM_AMU	isotope mass
ITM_MASS_Os_168	167.967804 * ITM_AMU	isotope mass
ITM_MASS_Os_169	168.967019 * ITM_AMU	isotope mass
ITM_MASS_Os_170	169.963577 * ITM_AMU	isotope mass
ITM_MASS_Os_171	170.963185 * ITM_AMU	isotope mass
ITM_MASS_Os_172	171.960023 * ITM_AMU	isotope mass
ITM_MASS_Os_173	172.959808 * ITM_AMU	isotope mass
ITM_MASS_Os_174	173.957062 * ITM_AMU	isotope mass
ITM_MASS_Os_175	174.956946 * ITM_AMU	isotope mass
ITM_MASS_Os_176	175.954810 * ITM_AMU	isotope mass
ITM_MASS_Os_177	176.954965 * ITM_AMU	isotope mass
ITM_MASS_Os_178	177.953251 * ITM_AMU	isotope mass
ITM_MASS_Os_179	178.953816 * ITM_AMU	isotope mass
ITM_MASS_Os_180	179.952379 * ITM_AMU	isotope mass
ITM_MASS_Os_181	180.953240 * ITM_AMU	isotope mass
ITM_MASS_Os_182	181.952110 * ITM_AMU	isotope mass
ITM_MASS_Os_183	182.953130 * ITM_AMU	isotope mass
ITM_MASS_Os_184	183.9524891 * ITM_AMU	isotope mass
ITM_MASS_Os_185	184.9540423 * ITM_AMU	isotope mass
ITM_MASS_Os_186	185.9538382 * ITM_AMU	isotope mass
ITM_MASS_Os_187	186.9557505 * ITM_AMU	isotope mass
ITM_MASS_Os_188	187.9558382 * ITM_AMU	isotope mass
ITM_MASS_Os_189	188.9581475 * ITM_AMU	isotope mass
ITM_MASS_Os_190	189.9584470 * ITM_AMU	isotope mass
ITM_MASS_Os_191	190.9609297 * ITM_AMU	isotope mass
ITM_MASS_Os_192	191.9614807 * ITM_AMU	isotope mass
ITM_MASS_Os_193	192.9641516 * ITM_AMU	isotope mass
ITM_MASS_Os_194	193.9651821 * ITM_AMU	isotope mass
ITM_MASS_Os_195	194.96813 * ITM_AMU	isotope mass
ITM_MASS_Os_196	195.969640 * ITM_AMU	isotope mass
ITM_MASS_Ir_164	163.99220 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ir_165	164.98752 * ITM_AMU	isotope mass
ITM_MASS_Ir_166	165.98582 * ITM_AMU	isotope mass
ITM_MASS_Ir_167	166.981665 * ITM_AMU	isotope mass
ITM_MASS_Ir_168	167.97988 * ITM_AMU	isotope mass
ITM_MASS_Ir_169	168.976295 * ITM_AMU	isotope mass
ITM_MASS_Ir_170	169.97497 * ITM_AMU	isotope mass
ITM_MASS_Ir_171	170.971630 * ITM_AMU	isotope mass
ITM_MASS_Ir_172	171.97046 * ITM_AMU	isotope mass
ITM_MASS_Ir_173	172.967502 * ITM_AMU	isotope mass
ITM_MASS_Ir_174	173.966861 * ITM_AMU	isotope mass
ITM_MASS_Ir_175	174.964113 * ITM_AMU	isotope mass
ITM_MASS_Ir_176	175.963649 * ITM_AMU	isotope mass
ITM_MASS_Ir_177	176.961302 * ITM_AMU	isotope mass
ITM_MASS_Ir_178	177.961082 * ITM_AMU	isotope mass
ITM_MASS_Ir_179	178.959122 * ITM_AMU	isotope mass
ITM_MASS_Ir_180	179.959229 * ITM_AMU	isotope mass
ITM_MASS_Ir_181	180.957625 * ITM_AMU	isotope mass
ITM_MASS_Ir_182	181.958076 * ITM_AMU	isotope mass
ITM_MASS_Ir_183	182.956846 * ITM_AMU	isotope mass
ITM_MASS_Ir_184	183.957480 * ITM_AMU	isotope mass
ITM_MASS_Ir_185	184.956700 * ITM_AMU	isotope mass
ITM_MASS_Ir_186	185.957946 * ITM_AMU	isotope mass
ITM_MASS_Ir_187	186.957363 * ITM_AMU	isotope mass
ITM_MASS_Ir_188	187.958853 * ITM_AMU	isotope mass
ITM_MASS_Ir_189	188.958719 * ITM_AMU	isotope mass
ITM_MASS_Ir_190	189.9605460 * ITM_AMU	isotope mass
ITM_MASS_Ir_191	190.9605940 * ITM_AMU	isotope mass
ITM_MASS_Ir_192	191.9626050 * ITM_AMU	isotope mass
ITM_MASS_Ir_193	192.9629264 * ITM_AMU	isotope mass
ITM_MASS_Ir_194	193.9650784 * ITM_AMU	isotope mass
ITM_MASS_Ir_195	194.9659796 * ITM_AMU	isotope mass
ITM_MASS_Ir_196	195.968400 * ITM_AMU	isotope mass
ITM_MASS_Ir_197	196.969653 * ITM_AMU	isotope mass
ITM_MASS_Ir_198	197.97228 * ITM_AMU	isotope mass
ITM_MASS_Ir_199	198.973800 * ITM_AMU	isotope mass
ITM_MASS_Pt_166	165.99486 * ITM_AMU	isotope mass
ITM_MASS_Pt_167	166.99298 * ITM_AMU	isotope mass
ITM_MASS_Pt_168	167.98815 * ITM_AMU	isotope mass
ITM_MASS_Pt_169	168.98672 * ITM_AMU	isotope mass
ITM_MASS_Pt_170	169.982495 * ITM_AMU	isotope mass
ITM_MASS_Pt_171	170.981240 * ITM_AMU	isotope mass
ITM_MASS_Pt_172	171.977347 * ITM_AMU	isotope mass
ITM_MASS_Pt_173	172.976440 * ITM_AMU	isotope mass
ITM_MASS_Pt_174	173.972819 * ITM_AMU	isotope mass
ITM_MASS_Pt_175	174.972421 * ITM_AMU	isotope mass
ITM_MASS_Pt_176	175.968945 * ITM_AMU	isotope mass
ITM_MASS_Pt_177	176.968469 * ITM_AMU	isotope mass
ITM_MASS_Pt_178	177.965649 * ITM_AMU	isotope mass
ITM_MASS_Pt_179	178.965363 * ITM_AMU	isotope mass
ITM_MASS_Pt_180	179.963031 * ITM_AMU	isotope mass
ITM_MASS_Pt_181	180.963097 * ITM_AMU	isotope mass
ITM_MASS_Pt_182	181.961171 * ITM_AMU	isotope mass
ITM_MASS_Pt_183	182.961597 * ITM_AMU	isotope mass
ITM_MASS_Pt_184	183.959922 * ITM_AMU	isotope mass
ITM_MASS_Pt_185	184.960620 * ITM_AMU	isotope mass
ITM_MASS_Pt_186	185.959351 * ITM_AMU	isotope mass
ITM_MASS_Pt_187	186.960590 * ITM_AMU	isotope mass
ITM_MASS_Pt_188	187.959395 * ITM_AMU	isotope mass
ITM_MASS_Pt_189	188.960834 * ITM_AMU	isotope mass
ITM_MASS_Pt_190	189.959932 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Pt_191	190.961677 * ITM_AMU	isotope mass
ITM_MASS_Pt_192	191.9610380 * ITM_AMU	isotope mass
ITM_MASS_Pt_193	192.9629874 * ITM_AMU	isotope mass
ITM_MASS_Pt_194	193.9626803 * ITM_AMU	isotope mass
ITM_MASS_Pt_195	194.9647911 * ITM_AMU	isotope mass
ITM_MASS_Pt_196	195.9649515 * ITM_AMU	isotope mass
ITM_MASS_Pt_197	196.9673402 * ITM_AMU	isotope mass
ITM_MASS_Pt_198	197.967893 * ITM_AMU	isotope mass
ITM_MASS_Pt_199	198.970593 * ITM_AMU	isotope mass
ITM_MASS_Pt_200	199.971441 * ITM_AMU	isotope mass
ITM_MASS_Pt_201	200.974510 * ITM_AMU	isotope mass
ITM_MASS_Pt_202	201.97574 * ITM_AMU	isotope mass
ITM_MASS_Au_169	168.99808 * ITM_AMU	isotope mass
ITM_MASS_Au_170	169.99612 * ITM_AMU	isotope mass
ITM_MASS_Au_171	170.991879 * ITM_AMU	isotope mass
ITM_MASS_Au_172	171.99004 * ITM_AMU	isotope mass
ITM_MASS_Au_173	172.986237 * ITM_AMU	isotope mass
ITM_MASS_Au_174	173.98476 * ITM_AMU	isotope mass
ITM_MASS_Au_175	174.981270 * ITM_AMU	isotope mass
ITM_MASS_Au_176	175.98010 * ITM_AMU	isotope mass
ITM_MASS_Au_177	176.976865 * ITM_AMU	isotope mass
ITM_MASS_Au_178	177.976030 * ITM_AMU	isotope mass
ITM_MASS_Au_179	178.973213 * ITM_AMU	isotope mass
ITM_MASS_Au_180	179.972521 * ITM_AMU	isotope mass
ITM_MASS_Au_181	180.970079 * ITM_AMU	isotope mass
ITM_MASS_Au_182	181.969618 * ITM_AMU	isotope mass
ITM_MASS_Au_183	182.967593 * ITM_AMU	isotope mass
ITM_MASS_Au_184	183.967452 * ITM_AMU	isotope mass
ITM_MASS_Au_185	184.965789 * ITM_AMU	isotope mass
ITM_MASS_Au_186	185.965953 * ITM_AMU	isotope mass
ITM_MASS_Au_187	186.964568 * ITM_AMU	isotope mass
ITM_MASS_Au_188	187.965324 * ITM_AMU	isotope mass
ITM_MASS_Au_189	188.963948 * ITM_AMU	isotope mass
ITM_MASS_Au_190	189.964700 * ITM_AMU	isotope mass
ITM_MASS_Au_191	190.963700 * ITM_AMU	isotope mass
ITM_MASS_Au_192	191.964813 * ITM_AMU	isotope mass
ITM_MASS_Au_193	192.964150 * ITM_AMU	isotope mass
ITM_MASS_Au_194	193.965365 * ITM_AMU	isotope mass
ITM_MASS_Au_195	194.9650346 * ITM_AMU	isotope mass
ITM_MASS_Au_196	195.966570 * ITM_AMU	isotope mass
ITM_MASS_Au_197	196.9665687 * ITM_AMU	isotope mass
ITM_MASS_Au_198	197.9682423 * ITM_AMU	isotope mass
ITM_MASS_Au_199	198.9687652 * ITM_AMU	isotope mass
ITM_MASS_Au_200	199.970730 * ITM_AMU	isotope mass
ITM_MASS_Au_201	200.971657 * ITM_AMU	isotope mass
ITM_MASS_Au_202	201.97381 * ITM_AMU	isotope mass
ITM_MASS_Au_203	202.975155 * ITM_AMU	isotope mass
ITM_MASS_Au_204	203.97772 * ITM_AMU	isotope mass
ITM_MASS_Au_205	204.97987 * ITM_AMU	isotope mass
ITM_MASS_Hg_171	171.00376 * ITM_AMU	isotope mass
ITM_MASS_Hg_172	171.99883 * ITM_AMU	isotope mass
ITM_MASS_Hg_173	172.99724 * ITM_AMU	isotope mass
ITM_MASS_Hg_174	173.992864 * ITM_AMU	isotope mass
ITM_MASS_Hg_175	174.99142 * ITM_AMU	isotope mass
ITM_MASS_Hg_176	175.987355 * ITM_AMU	isotope mass
ITM_MASS_Hg_177	176.986280 * ITM_AMU	isotope mass
ITM_MASS_Hg_178	177.982483 * ITM_AMU	isotope mass
ITM_MASS_Hg_179	178.981834 * ITM_AMU	isotope mass
ITM_MASS_Hg_180	179.978266 * ITM_AMU	isotope mass
ITM_MASS_Hg_181	180.977819 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Hg_182	181.974690 * ITM_AMU	isotope mass
ITM_MASS_Hg_183	182.974450 * ITM_AMU	isotope mass
ITM_MASS_Hg_184	183.971713 * ITM_AMU	isotope mass
ITM_MASS_Hg_185	184.971899 * ITM_AMU	isotope mass
ITM_MASS_Hg_186	185.969362 * ITM_AMU	isotope mass
ITM_MASS_Hg_187	186.969814 * ITM_AMU	isotope mass
ITM_MASS_Hg_188	187.967577 * ITM_AMU	isotope mass
ITM_MASS_Hg_189	188.968190 * ITM_AMU	isotope mass
ITM_MASS_Hg_190	189.966322 * ITM_AMU	isotope mass
ITM_MASS_Hg_191	190.967157 * ITM_AMU	isotope mass
ITM_MASS_Hg_192	191.965634 * ITM_AMU	isotope mass
ITM_MASS_Hg_193	192.966665 * ITM_AMU	isotope mass
ITM_MASS_Hg_194	193.965439 * ITM_AMU	isotope mass
ITM_MASS_Hg_195	194.966720 * ITM_AMU	isotope mass
ITM_MASS_Hg_196	195.965833 * ITM_AMU	isotope mass
ITM_MASS_Hg_197	196.967213 * ITM_AMU	isotope mass
ITM_MASS_Hg_198	197.9667690 * ITM_AMU	isotope mass
ITM_MASS_Hg_199	198.9682799 * ITM_AMU	isotope mass
ITM_MASS_Hg_200	199.9683260 * ITM_AMU	isotope mass
ITM_MASS_Hg_201	200.9703023 * ITM_AMU	isotope mass
ITM_MASS_Hg_202	201.9706430 * ITM_AMU	isotope mass
ITM_MASS_Hg_203	202.9728725 * ITM_AMU	isotope mass
ITM_MASS_Hg_204	203.9734939 * ITM_AMU	isotope mass
ITM_MASS_Hg_205	204.976073 * ITM_AMU	isotope mass
ITM_MASS_Hg_206	205.977514 * ITM_AMU	isotope mass
ITM_MASS_Hg_207	206.98259 * ITM_AMU	isotope mass
ITM_MASS_Hg_208	207.98594 * ITM_AMU	isotope mass
ITM_MASS_Hg_209	208.99104 * ITM_AMU	isotope mass
ITM_MASS_Hg_210	209.99451 * ITM_AMU	isotope mass
ITM_MASS_Tl_176	176.00059 * ITM_AMU	isotope mass
ITM_MASS_Tl_177	176.996427 * ITM_AMU	isotope mass
ITM_MASS_Tl_178	177.99490 * ITM_AMU	isotope mass
ITM_MASS_Tl_179	178.991090 * ITM_AMU	isotope mass
ITM_MASS_Tl_180	179.98991 * ITM_AMU	isotope mass
ITM_MASS_Tl_181	180.986257 * ITM_AMU	isotope mass
ITM_MASS_Tl_182	181.985670 * ITM_AMU	isotope mass
ITM_MASS_Tl_183	182.982193 * ITM_AMU	isotope mass
ITM_MASS_Tl_184	183.981870 * ITM_AMU	isotope mass
ITM_MASS_Tl_185	184.978790 * ITM_AMU	isotope mass
ITM_MASS_Tl_186	185.97833 * ITM_AMU	isotope mass
ITM_MASS_Tl_187	186.975906 * ITM_AMU	isotope mass
ITM_MASS_Tl_188	187.976010 * ITM_AMU	isotope mass
ITM_MASS_Tl_189	188.973588 * ITM_AMU	isotope mass
ITM_MASS_Tl_190	189.973880 * ITM_AMU	isotope mass
ITM_MASS_Tl_191	190.971786 * ITM_AMU	isotope mass
ITM_MASS_Tl_192	191.972230 * ITM_AMU	isotope mass
ITM_MASS_Tl_193	192.97067 * ITM_AMU	isotope mass
ITM_MASS_Tl_194	193.97120 * ITM_AMU	isotope mass
ITM_MASS_Tl_195	194.969774 * ITM_AMU	isotope mass
ITM_MASS_Tl_196	195.970481 * ITM_AMU	isotope mass
ITM_MASS_Tl_197	196.969575 * ITM_AMU	isotope mass
ITM_MASS_Tl_198	197.970480 * ITM_AMU	isotope mass
ITM_MASS_Tl_199	198.969880 * ITM_AMU	isotope mass
ITM_MASS_Tl_200	199.970963 * ITM_AMU	isotope mass
ITM_MASS_Tl_201	200.970819 * ITM_AMU	isotope mass
ITM_MASS_Tl_202	201.972106 * ITM_AMU	isotope mass
ITM_MASS_Tl_203	202.9723442 * ITM_AMU	isotope mass
ITM_MASS_Tl_204	203.9738635 * ITM_AMU	isotope mass
ITM_MASS_Tl_205	204.9744275 * ITM_AMU	isotope mass
ITM_MASS_Tl_206	205.9761103 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Tl_207	206.977419 * ITM_AMU	isotope mass
ITM_MASS_Tl_208	207.9820187 * ITM_AMU	isotope mass
ITM_MASS_Tl_209	208.985359 * ITM_AMU	isotope mass
ITM_MASS_Tl_210	209.990074 * ITM_AMU	isotope mass
ITM_MASS_Tl_211	210.99348 * ITM_AMU	isotope mass
ITM_MASS_Tl_212	211.99823 * ITM_AMU	isotope mass
ITM_MASS_Pb_178	178.003830 * ITM_AMU	isotope mass
ITM_MASS_Pb_179	179.00215 * ITM_AMU	isotope mass
ITM_MASS_Pb_180	179.997918 * ITM_AMU	isotope mass
ITM_MASS_Pb_181	180.99662 * ITM_AMU	isotope mass
ITM_MASS_Pb_182	181.992672 * ITM_AMU	isotope mass
ITM_MASS_Pb_183	182.991870 * ITM_AMU	isotope mass
ITM_MASS_Pb_184	183.988142 * ITM_AMU	isotope mass
ITM_MASS_Pb_185	184.987610 * ITM_AMU	isotope mass
ITM_MASS_Pb_186	185.984239 * ITM_AMU	isotope mass
ITM_MASS_Pb_187	186.983918 * ITM_AMU	isotope mass
ITM_MASS_Pb_188	187.980874 * ITM_AMU	isotope mass
ITM_MASS_Pb_189	188.980810 * ITM_AMU	isotope mass
ITM_MASS_Pb_190	189.978082 * ITM_AMU	isotope mass
ITM_MASS_Pb_191	190.978270 * ITM_AMU	isotope mass
ITM_MASS_Pb_192	191.975785 * ITM_AMU	isotope mass
ITM_MASS_Pb_193	192.976170 * ITM_AMU	isotope mass
ITM_MASS_Pb_194	193.974012 * ITM_AMU	isotope mass
ITM_MASS_Pb_195	194.974542 * ITM_AMU	isotope mass
ITM_MASS_Pb_196	195.972774 * ITM_AMU	isotope mass
ITM_MASS_Pb_197	196.973431 * ITM_AMU	isotope mass
ITM_MASS_Pb_198	197.972034 * ITM_AMU	isotope mass
ITM_MASS_Pb_199	198.972917 * ITM_AMU	isotope mass
ITM_MASS_Pb_200	199.971827 * ITM_AMU	isotope mass
ITM_MASS_Pb_201	200.972885 * ITM_AMU	isotope mass
ITM_MASS_Pb_202	201.972159 * ITM_AMU	isotope mass
ITM_MASS_Pb_203	202.973391 * ITM_AMU	isotope mass
ITM_MASS_Pb_204	203.9730436 * ITM_AMU	isotope mass
ITM_MASS_Pb_205	204.9744818 * ITM_AMU	isotope mass
ITM_MASS_Pb_206	205.9744653 * ITM_AMU	isotope mass
ITM_MASS_Pb_207	206.9758969 * ITM_AMU	isotope mass
ITM_MASS_Pb_208	207.9766521 * ITM_AMU	isotope mass
ITM_MASS_Pb_209	208.9810901 * ITM_AMU	isotope mass
ITM_MASS_Pb_210	209.9841885 * ITM_AMU	isotope mass
ITM_MASS_Pb_211	210.9887370 * ITM_AMU	isotope mass
ITM_MASS_Pb_212	211.9918975 * ITM_AMU	isotope mass
ITM_MASS_Pb_213	212.996581 * ITM_AMU	isotope mass
ITM_MASS_Pb_214	213.9998054 * ITM_AMU	isotope mass
ITM_MASS_Pb_215	215.00481 * ITM_AMU	isotope mass
ITM_MASS_Bi_184	184.00112 * ITM_AMU	isotope mass
ITM_MASS_Bi_185	184.997630 * ITM_AMU	isotope mass
ITM_MASS_Bi_186	185.996600 * ITM_AMU	isotope mass
ITM_MASS_Bi_187	186.993158 * ITM_AMU	isotope mass
ITM_MASS_Bi_188	187.992270 * ITM_AMU	isotope mass
ITM_MASS_Bi_189	188.989200 * ITM_AMU	isotope mass
ITM_MASS_Bi_190	189.98830 * ITM_AMU	isotope mass
ITM_MASS_Bi_191	190.985786 * ITM_AMU	isotope mass
ITM_MASS_Bi_192	191.985460 * ITM_AMU	isotope mass
ITM_MASS_Bi_193	192.982960 * ITM_AMU	isotope mass
ITM_MASS_Bi_194	193.982830 * ITM_AMU	isotope mass
ITM_MASS_Bi_195	194.980651 * ITM_AMU	isotope mass
ITM_MASS_Bi_196	195.980667 * ITM_AMU	isotope mass
ITM_MASS_Bi_197	196.978864 * ITM_AMU	isotope mass
ITM_MASS_Bi_198	197.979210 * ITM_AMU	isotope mass
ITM_MASS_Bi_199	198.977672 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Bi_200	199.978132 * ITM_AMU	isotope mass
ITM_MASS_Bi_201	200.977009 * ITM_AMU	isotope mass
ITM_MASS_Bi_202	201.977742 * ITM_AMU	isotope mass
ITM_MASS_Bi_203	202.976876 * ITM_AMU	isotope mass
ITM_MASS_Bi_204	203.977813 * ITM_AMU	isotope mass
ITM_MASS_Bi_205	204.977389 * ITM_AMU	isotope mass
ITM_MASS_Bi_206	205.978499 * ITM_AMU	isotope mass
ITM_MASS_Bi_207	206.9784707 * ITM_AMU	isotope mass
ITM_MASS_Bi_208	207.9797422 * ITM_AMU	isotope mass
ITM_MASS_Bi_209	208.9803987 * ITM_AMU	isotope mass
ITM_MASS_Bi_210	209.9841204 * ITM_AMU	isotope mass
ITM_MASS_Bi_211	210.987269 * ITM_AMU	isotope mass
ITM_MASS_Bi_212	211.9912857 * ITM_AMU	isotope mass
ITM_MASS_Bi_213	212.994385 * ITM_AMU	isotope mass
ITM_MASS_Bi_214	213.998712 * ITM_AMU	isotope mass
ITM_MASS_Bi_215	215.001770 * ITM_AMU	isotope mass
ITM_MASS_Bi_216	216.006306 * ITM_AMU	isotope mass
ITM_MASS_Bi_217	217.00947 * ITM_AMU	isotope mass
ITM_MASS_Bi_218	218.01432 * ITM_AMU	isotope mass
ITM_MASS_Po_188	187.999422 * ITM_AMU	isotope mass
ITM_MASS_Po_189	188.998481 * ITM_AMU	isotope mass
ITM_MASS_Po_190	189.995101 * ITM_AMU	isotope mass
ITM_MASS_Po_191	190.994574 * ITM_AMU	isotope mass
ITM_MASS_Po_192	191.991335 * ITM_AMU	isotope mass
ITM_MASS_Po_193	192.991030 * ITM_AMU	isotope mass
ITM_MASS_Po_194	193.988186 * ITM_AMU	isotope mass
ITM_MASS_Po_195	194.988110 * ITM_AMU	isotope mass
ITM_MASS_Po_196	195.985535 * ITM_AMU	isotope mass
ITM_MASS_Po_197	196.985660 * ITM_AMU	isotope mass
ITM_MASS_Po_198	197.983389 * ITM_AMU	isotope mass
ITM_MASS_Po_199	198.983666 * ITM_AMU	isotope mass
ITM_MASS_Po_200	199.981799 * ITM_AMU	isotope mass
ITM_MASS_Po_201	200.982260 * ITM_AMU	isotope mass
ITM_MASS_Po_202	201.980758 * ITM_AMU	isotope mass
ITM_MASS_Po_203	202.981420 * ITM_AMU	isotope mass
ITM_MASS_Po_204	203.980318 * ITM_AMU	isotope mass
ITM_MASS_Po_205	204.981203 * ITM_AMU	isotope mass
ITM_MASS_Po_206	205.980481 * ITM_AMU	isotope mass
ITM_MASS_Po_207	206.981593 * ITM_AMU	isotope mass
ITM_MASS_Po_208	207.9812457 * ITM_AMU	isotope mass
ITM_MASS_Po_209	208.9824304 * ITM_AMU	isotope mass
ITM_MASS_Po_210	209.9828737 * ITM_AMU	isotope mass
ITM_MASS_Po_211	210.9866532 * ITM_AMU	isotope mass
ITM_MASS_Po_212	211.9888680 * ITM_AMU	isotope mass
ITM_MASS_Po_213	212.992857 * ITM_AMU	isotope mass
ITM_MASS_Po_214	213.9952014 * ITM_AMU	isotope mass
ITM_MASS_Po_215	214.9994200 * ITM_AMU	isotope mass
ITM_MASS_Po_216	216.0019150 * ITM_AMU	isotope mass
ITM_MASS_Po_217	217.006335 * ITM_AMU	isotope mass
ITM_MASS_Po_218	218.0089730 * ITM_AMU	isotope mass
ITM_MASS_Po_219	219.01374 * ITM_AMU	isotope mass
ITM_MASS_Po_220	220.01660 * ITM_AMU	isotope mass
ITM_MASS_At_193	192.999840 * ITM_AMU	isotope mass
ITM_MASS_At_194	193.99873 * ITM_AMU	isotope mass
ITM_MASS_At_195	194.996268 * ITM_AMU	isotope mass
ITM_MASS_At_196	195.995790 * ITM_AMU	isotope mass
ITM_MASS_At_197	196.993190 * ITM_AMU	isotope mass
ITM_MASS_At_198	197.992840 * ITM_AMU	isotope mass
ITM_MASS_At_199	198.990530 * ITM_AMU	isotope mass
ITM_MASS_At_200	199.990351 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_At_201	200.988417 * ITM_AMU	isotope mass
ITM_MASS_At_202	201.988630 * ITM_AMU	isotope mass
ITM_MASS_At_203	202.986942 * ITM_AMU	isotope mass
ITM_MASS_At_204	203.987251 * ITM_AMU	isotope mass
ITM_MASS_At_205	204.986074 * ITM_AMU	isotope mass
ITM_MASS_At_206	205.986667 * ITM_AMU	isotope mass
ITM_MASS_At_207	206.985784 * ITM_AMU	isotope mass
ITM_MASS_At_208	207.986590 * ITM_AMU	isotope mass
ITM_MASS_At_209	208.986173 * ITM_AMU	isotope mass
ITM_MASS_At_210	209.987148 * ITM_AMU	isotope mass
ITM_MASS_At_211	210.9874963 * ITM_AMU	isotope mass
ITM_MASS_At_212	211.990745 * ITM_AMU	isotope mass
ITM_MASS_At_213	212.992937 * ITM_AMU	isotope mass
ITM_MASS_At_214	213.996372 * ITM_AMU	isotope mass
ITM_MASS_At_215	214.998653 * ITM_AMU	isotope mass
ITM_MASS_At_216	216.002423 * ITM_AMU	isotope mass
ITM_MASS_At_217	217.004719 * ITM_AMU	isotope mass
ITM_MASS_At_218	218.008694 * ITM_AMU	isotope mass
ITM_MASS_At_219	219.011162 * ITM_AMU	isotope mass
ITM_MASS_At_220	220.015410 * ITM_AMU	isotope mass
ITM_MASS_At_221	221.01805 * ITM_AMU	isotope mass
ITM_MASS_At_222	222.02233 * ITM_AMU	isotope mass
ITM_MASS_At_223	223.02519 * ITM_AMU	isotope mass
ITM_MASS_Rn_195	195.005440 * ITM_AMU	isotope mass
ITM_MASS_Rn_196	196.002115 * ITM_AMU	isotope mass
ITM_MASS_Rn_197	197.001580 * ITM_AMU	isotope mass
ITM_MASS_Rn_198	197.998679 * ITM_AMU	isotope mass
ITM_MASS_Rn_199	198.998370 * ITM_AMU	isotope mass
ITM_MASS_Rn_200	199.995699 * ITM_AMU	isotope mass
ITM_MASS_Rn_201	200.995630 * ITM_AMU	isotope mass
ITM_MASS_Rn_202	201.993263 * ITM_AMU	isotope mass
ITM_MASS_Rn_203	202.993387 * ITM_AMU	isotope mass
ITM_MASS_Rn_204	203.991429 * ITM_AMU	isotope mass
ITM_MASS_Rn_205	204.991720 * ITM_AMU	isotope mass
ITM_MASS_Rn_206	205.990214 * ITM_AMU	isotope mass
ITM_MASS_Rn_207	206.990734 * ITM_AMU	isotope mass
ITM_MASS_Rn_208	207.989642 * ITM_AMU	isotope mass
ITM_MASS_Rn_209	208.990415 * ITM_AMU	isotope mass
ITM_MASS_Rn_210	209.989696 * ITM_AMU	isotope mass
ITM_MASS_Rn_211	210.990601 * ITM_AMU	isotope mass
ITM_MASS_Rn_212	211.990704 * ITM_AMU	isotope mass
ITM_MASS_Rn_213	212.993883 * ITM_AMU	isotope mass
ITM_MASS_Rn_214	213.995363 * ITM_AMU	isotope mass
ITM_MASS_Rn_215	214.998745 * ITM_AMU	isotope mass
ITM_MASS_Rn_216	216.000274 * ITM_AMU	isotope mass
ITM_MASS_Rn_217	217.003928 * ITM_AMU	isotope mass
ITM_MASS_Rn_218	218.0056013 * ITM_AMU	isotope mass
ITM_MASS_Rn_219	219.0094802 * ITM_AMU	isotope mass
ITM_MASS_Rn_220	220.0113940 * ITM_AMU	isotope mass
ITM_MASS_Rn_221	221.015537 * ITM_AMU	isotope mass
ITM_MASS_Rn_222	222.0175777 * ITM_AMU	isotope mass
ITM_MASS_Rn_223	223.02179 * ITM_AMU	isotope mass
ITM_MASS_Rn_224	224.02409 * ITM_AMU	isotope mass
ITM_MASS_Rn_225	225.02844 * ITM_AMU	isotope mass
ITM_MASS_Rn_226	226.03089 * ITM_AMU	isotope mass
ITM_MASS_Rn_227	227.03541 * ITM_AMU	isotope mass
ITM_MASS_Rn_228	228.03799 * ITM_AMU	isotope mass
ITM_MASS_Fr_199	199.007260 * ITM_AMU	isotope mass
ITM_MASS_Fr_200	200.006570 * ITM_AMU	isotope mass
ITM_MASS_Fr_201	201.003860 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Fr_202	202.003370 * ITM_AMU	isotope mass
ITM_MASS_Fr_203	203.000925 * ITM_AMU	isotope mass
ITM_MASS_Fr_204	204.000653 * ITM_AMU	isotope mass
ITM_MASS_Fr_205	204.998594 * ITM_AMU	isotope mass
ITM_MASS_Fr_206	205.998670 * ITM_AMU	isotope mass
ITM_MASS_Fr_207	206.996950 * ITM_AMU	isotope mass
ITM_MASS_Fr_208	207.997140 * ITM_AMU	isotope mass
ITM_MASS_Fr_209	208.995954 * ITM_AMU	isotope mass
ITM_MASS_Fr_210	209.996408 * ITM_AMU	isotope mass
ITM_MASS_Fr_211	210.995537 * ITM_AMU	isotope mass
ITM_MASS_Fr_212	211.996202 * ITM_AMU	isotope mass
ITM_MASS_Fr_213	212.996189 * ITM_AMU	isotope mass
ITM_MASS_Fr_214	213.998971 * ITM_AMU	isotope mass
ITM_MASS_Fr_215	215.000341 * ITM_AMU	isotope mass
ITM_MASS_Fr_216	216.003198 * ITM_AMU	isotope mass
ITM_MASS_Fr_217	217.004632 * ITM_AMU	isotope mass
ITM_MASS_Fr_218	218.007578 * ITM_AMU	isotope mass
ITM_MASS_Fr_219	219.009252 * ITM_AMU	isotope mass
ITM_MASS_Fr_220	220.012327 * ITM_AMU	isotope mass
ITM_MASS_Fr_221	221.014255 * ITM_AMU	isotope mass
ITM_MASS_Fr_222	222.017552 * ITM_AMU	isotope mass
ITM_MASS_Fr_223	223.0197359 * ITM_AMU	isotope mass
ITM_MASS_Fr_224	224.023250 * ITM_AMU	isotope mass
ITM_MASS_Fr_225	225.025570 * ITM_AMU	isotope mass
ITM_MASS_Fr_226	226.02939 * ITM_AMU	isotope mass
ITM_MASS_Fr_227	227.03184 * ITM_AMU	isotope mass
ITM_MASS_Fr_228	228.03573 * ITM_AMU	isotope mass
ITM_MASS_Fr_229	229.038450 * ITM_AMU	isotope mass
ITM_MASS_Fr_230	230.04251 * ITM_AMU	isotope mass
ITM_MASS_Fr_231	231.04544 * ITM_AMU	isotope mass
ITM_MASS_Fr_232	232.04977 * ITM_AMU	isotope mass
ITM_MASS_Ra_202	202.009890 * ITM_AMU	isotope mass
ITM_MASS_Ra_203	203.009270 * ITM_AMU	isotope mass
ITM_MASS_Ra_204	204.006500 * ITM_AMU	isotope mass
ITM_MASS_Ra_205	205.006270 * ITM_AMU	isotope mass
ITM_MASS_Ra_206	206.003827 * ITM_AMU	isotope mass
ITM_MASS_Ra_207	207.003800 * ITM_AMU	isotope mass
ITM_MASS_Ra_208	208.001840 * ITM_AMU	isotope mass
ITM_MASS_Ra_209	209.001990 * ITM_AMU	isotope mass
ITM_MASS_Ra_210	210.000495 * ITM_AMU	isotope mass
ITM_MASS_Ra_211	211.000898 * ITM_AMU	isotope mass
ITM_MASS_Ra_212	211.999794 * ITM_AMU	isotope mass
ITM_MASS_Ra_213	213.000384 * ITM_AMU	isotope mass
ITM_MASS_Ra_214	214.000108 * ITM_AMU	isotope mass
ITM_MASS_Ra_215	215.002720 * ITM_AMU	isotope mass
ITM_MASS_Ra_216	216.003533 * ITM_AMU	isotope mass
ITM_MASS_Ra_217	217.006320 * ITM_AMU	isotope mass
ITM_MASS_Ra_218	218.007140 * ITM_AMU	isotope mass
ITM_MASS_Ra_219	219.010085 * ITM_AMU	isotope mass
ITM_MASS_Ra_220	220.011028 * ITM_AMU	isotope mass
ITM_MASS_Ra_221	221.013917 * ITM_AMU	isotope mass
ITM_MASS_Ra_222	222.015375 * ITM_AMU	isotope mass
ITM_MASS_Ra_223	223.0185022 * ITM_AMU	isotope mass
ITM_MASS_Ra_224	224.0202118 * ITM_AMU	isotope mass
ITM_MASS_Ra_225	225.023612 * ITM_AMU	isotope mass
ITM_MASS_Ra_226	226.0254098 * ITM_AMU	isotope mass
ITM_MASS_Ra_227	227.0291778 * ITM_AMU	isotope mass
ITM_MASS_Ra_228	228.0310703 * ITM_AMU	isotope mass
ITM_MASS_Ra_229	229.034958 * ITM_AMU	isotope mass
ITM_MASS_Ra_230	230.037056 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Ra_231	231.04122 * ITM_AMU	isotope mass
ITM_MASS_Ra_232	232.04364 * ITM_AMU	isotope mass
ITM_MASS_Ra_233	233.04806 * ITM_AMU	isotope mass
ITM_MASS_Ra_234	234.05070 * ITM_AMU	isotope mass
ITM_MASS_Ac_206	206.014500 * ITM_AMU	isotope mass
ITM_MASS_Ac_207	207.011950 * ITM_AMU	isotope mass
ITM_MASS_Ac_208	208.011550 * ITM_AMU	isotope mass
ITM_MASS_Ac_209	209.009490 * ITM_AMU	isotope mass
ITM_MASS_Ac_210	210.009440 * ITM_AMU	isotope mass
ITM_MASS_Ac_211	211.007730 * ITM_AMU	isotope mass
ITM_MASS_Ac_212	212.007810 * ITM_AMU	isotope mass
ITM_MASS_Ac_213	213.006610 * ITM_AMU	isotope mass
ITM_MASS_Ac_214	214.006902 * ITM_AMU	isotope mass
ITM_MASS_Ac_215	215.006454 * ITM_AMU	isotope mass
ITM_MASS_Ac_216	216.008720 * ITM_AMU	isotope mass
ITM_MASS_Ac_217	217.009347 * ITM_AMU	isotope mass
ITM_MASS_Ac_218	218.011640 * ITM_AMU	isotope mass
ITM_MASS_Ac_219	219.012420 * ITM_AMU	isotope mass
ITM_MASS_Ac_220	220.014763 * ITM_AMU	isotope mass
ITM_MASS_Ac_221	221.015590 * ITM_AMU	isotope mass
ITM_MASS_Ac_222	222.017844 * ITM_AMU	isotope mass
ITM_MASS_Ac_223	223.019137 * ITM_AMU	isotope mass
ITM_MASS_Ac_224	224.021723 * ITM_AMU	isotope mass
ITM_MASS_Ac_225	225.023230 * ITM_AMU	isotope mass
ITM_MASS_Ac_226	226.026098 * ITM_AMU	isotope mass
ITM_MASS_Ac_227	227.0277521 * ITM_AMU	isotope mass
ITM_MASS_Ac_228	228.0310211 * ITM_AMU	isotope mass
ITM_MASS_Ac_229	229.033020 * ITM_AMU	isotope mass
ITM_MASS_Ac_230	230.03629 * ITM_AMU	isotope mass
ITM_MASS_Ac_231	231.03856 * ITM_AMU	isotope mass
ITM_MASS_Ac_232	232.04203 * ITM_AMU	isotope mass
ITM_MASS_Ac_233	233.04455 * ITM_AMU	isotope mass
ITM_MASS_Ac_234	234.04842 * ITM_AMU	isotope mass
ITM_MASS_Ac_235	235.05123 * ITM_AMU	isotope mass
ITM_MASS_Ac_236	236.05530 * ITM_AMU	isotope mass
ITM_MASS_Th_209	209.01772 * ITM_AMU	isotope mass
ITM_MASS_Th_210	210.015075 * ITM_AMU	isotope mass
ITM_MASS_Th_211	211.014930 * ITM_AMU	isotope mass
ITM_MASS_Th_212	212.012980 * ITM_AMU	isotope mass
ITM_MASS_Th_213	213.013010 * ITM_AMU	isotope mass
ITM_MASS_Th_214	214.011500 * ITM_AMU	isotope mass
ITM_MASS_Th_215	215.011730 * ITM_AMU	isotope mass
ITM_MASS_Th_216	216.011062 * ITM_AMU	isotope mass
ITM_MASS_Th_217	217.013114 * ITM_AMU	isotope mass
ITM_MASS_Th_218	218.013284 * ITM_AMU	isotope mass
ITM_MASS_Th_219	219.015540 * ITM_AMU	isotope mass
ITM_MASS_Th_220	220.015748 * ITM_AMU	isotope mass
ITM_MASS_Th_221	221.018184 * ITM_AMU	isotope mass
ITM_MASS_Th_222	222.018468 * ITM_AMU	isotope mass
ITM_MASS_Th_223	223.020811 * ITM_AMU	isotope mass
ITM_MASS_Th_224	224.021467 * ITM_AMU	isotope mass
ITM_MASS_Th_225	225.023951 * ITM_AMU	isotope mass
ITM_MASS_Th_226	226.024903 * ITM_AMU	isotope mass
ITM_MASS_Th_227	227.0277041 * ITM_AMU	isotope mass
ITM_MASS_Th_228	228.0287411 * ITM_AMU	isotope mass
ITM_MASS_Th_229	229.031762 * ITM_AMU	isotope mass
ITM_MASS_Th_230	230.0331338 * ITM_AMU	isotope mass
ITM_MASS_Th_231	231.0363043 * ITM_AMU	isotope mass
ITM_MASS_Th_232	232.0380553 * ITM_AMU	isotope mass
ITM_MASS_Th_233	233.0415818 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Th_234	234.043601 * ITM_AMU	isotope mass
ITM_MASS_Th_235	235.047510 * ITM_AMU	isotope mass
ITM_MASS_Th_236	236.04987 * ITM_AMU	isotope mass
ITM_MASS_Th_237	237.05389 * ITM_AMU	isotope mass
ITM_MASS_Th_238	238.05650 * ITM_AMU	isotope mass
ITM_MASS_Pa_212	212.023200 * ITM_AMU	isotope mass
ITM_MASS_Pa_213	213.021110 * ITM_AMU	isotope mass
ITM_MASS_Pa_214	214.020920 * ITM_AMU	isotope mass
ITM_MASS_Pa_215	215.019190 * ITM_AMU	isotope mass
ITM_MASS_Pa_216	216.019110 * ITM_AMU	isotope mass
ITM_MASS_Pa_217	217.018320 * ITM_AMU	isotope mass
ITM_MASS_Pa_218	218.020042 * ITM_AMU	isotope mass
ITM_MASS_Pa_219	219.019880 * ITM_AMU	isotope mass
ITM_MASS_Pa_220	220.021880 * ITM_AMU	isotope mass
ITM_MASS_Pa_221	221.021880 * ITM_AMU	isotope mass
ITM_MASS_Pa_222	222.023740 * ITM_AMU	isotope mass
ITM_MASS_Pa_223	223.023960 * ITM_AMU	isotope mass
ITM_MASS_Pa_224	224.025626 * ITM_AMU	isotope mass
ITM_MASS_Pa_225	225.026130 * ITM_AMU	isotope mass
ITM_MASS_Pa_226	226.027948 * ITM_AMU	isotope mass
ITM_MASS_Pa_227	227.028805 * ITM_AMU	isotope mass
ITM_MASS_Pa_228	228.031051 * ITM_AMU	isotope mass
ITM_MASS_Pa_229	229.0320968 * ITM_AMU	isotope mass
ITM_MASS_Pa_230	230.034541 * ITM_AMU	isotope mass
ITM_MASS_Pa_231	231.0358840 * ITM_AMU	isotope mass
ITM_MASS_Pa_232	232.038592 * ITM_AMU	isotope mass
ITM_MASS_Pa_233	233.0402473 * ITM_AMU	isotope mass
ITM_MASS_Pa_234	234.043308 * ITM_AMU	isotope mass
ITM_MASS_Pa_235	235.045440 * ITM_AMU	isotope mass
ITM_MASS_Pa_236	236.04868 * ITM_AMU	isotope mass
ITM_MASS_Pa_237	237.05115 * ITM_AMU	isotope mass
ITM_MASS_Pa_238	238.054500 * ITM_AMU	isotope mass
ITM_MASS_Pa_239	239.05726 * ITM_AMU	isotope mass
ITM_MASS_Pa_240	240.06098 * ITM_AMU	isotope mass
ITM_MASS_U_217	217.024370 * ITM_AMU	isotope mass
ITM_MASS_U_218	218.023540 * ITM_AMU	isotope mass
ITM_MASS_U_219	219.024920 * ITM_AMU	isotope mass
ITM_MASS_U_220	220.02472 * ITM_AMU	isotope mass
ITM_MASS_U_221	221.02640 * ITM_AMU	isotope mass
ITM_MASS_U_222	222.02609 * ITM_AMU	isotope mass
ITM_MASS_U_223	223.027740 * ITM_AMU	isotope mass
ITM_MASS_U_224	224.027605 * ITM_AMU	isotope mass
ITM_MASS_U_225	225.029391 * ITM_AMU	isotope mass
ITM_MASS_U_226	226.029339 * ITM_AMU	isotope mass
ITM_MASS_U_227	227.031156 * ITM_AMU	isotope mass
ITM_MASS_U_228	228.031374 * ITM_AMU	isotope mass
ITM_MASS_U_229	229.033506 * ITM_AMU	isotope mass
ITM_MASS_U_230	230.033940 * ITM_AMU	isotope mass
ITM_MASS_U_231	231.036294 * ITM_AMU	isotope mass
ITM_MASS_U_232	232.0371562 * ITM_AMU	isotope mass
ITM_MASS_U_233	233.0396352 * ITM_AMU	isotope mass
ITM_MASS_U_234	234.0409521 * ITM_AMU	isotope mass
ITM_MASS_U_235	235.0439299 * ITM_AMU	isotope mass
ITM_MASS_U_236	236.0455680 * ITM_AMU	isotope mass
ITM_MASS_U_237	237.0487302 * ITM_AMU	isotope mass
ITM_MASS_U_238	238.0507882 * ITM_AMU	isotope mass
ITM_MASS_U_239	239.0542933 * ITM_AMU	isotope mass
ITM_MASS_U_240	240.056592 * ITM_AMU	isotope mass
ITM_MASS_U_241	241.06033 * ITM_AMU	isotope mass
ITM_MASS_U_242	242.06293 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Np_225	225.033910 * ITM_AMU	isotope mass
ITM_MASS_Np_226	226.03515 * ITM_AMU	isotope mass
ITM_MASS_Np_227	227.034960 * ITM_AMU	isotope mass
ITM_MASS_Np_228	228.03618 * ITM_AMU	isotope mass
ITM_MASS_Np_229	229.036260 * ITM_AMU	isotope mass
ITM_MASS_Np_230	230.037830 * ITM_AMU	isotope mass
ITM_MASS_Np_231	231.038250 * ITM_AMU	isotope mass
ITM_MASS_Np_232	232.04011 * ITM_AMU	isotope mass
ITM_MASS_Np_233	233.040740 * ITM_AMU	isotope mass
ITM_MASS_Np_234	234.042895 * ITM_AMU	isotope mass
ITM_MASS_Np_235	235.0440633 * ITM_AMU	isotope mass
ITM_MASS_Np_236	236.046570 * ITM_AMU	isotope mass
ITM_MASS_Np_237	237.0481734 * ITM_AMU	isotope mass
ITM_MASS_Np_238	238.0509464 * ITM_AMU	isotope mass
ITM_MASS_Np_239	239.0529390 * ITM_AMU	isotope mass
ITM_MASS_Np_240	240.056162 * ITM_AMU	isotope mass
ITM_MASS_Np_241	241.058250 * ITM_AMU	isotope mass
ITM_MASS_Np_242	242.06164 * ITM_AMU	isotope mass
ITM_MASS_Np_243	243.064280 * ITM_AMU	isotope mass
ITM_MASS_Np_244	244.06785 * ITM_AMU	isotope mass
ITM_MASS_Pu_228	228.038740 * ITM_AMU	isotope mass
ITM_MASS_Pu_229	229.040150 * ITM_AMU	isotope mass
ITM_MASS_Pu_230	230.039650 * ITM_AMU	isotope mass
ITM_MASS_Pu_231	231.041101 * ITM_AMU	isotope mass
ITM_MASS_Pu_232	232.041187 * ITM_AMU	isotope mass
ITM_MASS_Pu_233	233.043000 * ITM_AMU	isotope mass
ITM_MASS_Pu_234	234.043317 * ITM_AMU	isotope mass
ITM_MASS_Pu_235	235.045286 * ITM_AMU	isotope mass
ITM_MASS_Pu_236	236.0460580 * ITM_AMU	isotope mass
ITM_MASS_Pu_237	237.0484097 * ITM_AMU	isotope mass
ITM_MASS_Pu_238	238.0495599 * ITM_AMU	isotope mass
ITM_MASS_Pu_239	239.0521634 * ITM_AMU	isotope mass
ITM_MASS_Pu_240	240.0538135 * ITM_AMU	isotope mass
ITM_MASS_Pu_241	241.0568515 * ITM_AMU	isotope mass
ITM_MASS_Pu_242	242.0587426 * ITM_AMU	isotope mass
ITM_MASS_Pu_243	243.062003 * ITM_AMU	isotope mass
ITM_MASS_Pu_244	244.064204 * ITM_AMU	isotope mass
ITM_MASS_Pu_245	245.067747 * ITM_AMU	isotope mass
ITM_MASS_Pu_246	246.070205 * ITM_AMU	isotope mass
ITM_MASS_Pu_247	247.07407 * ITM_AMU	isotope mass
ITM_MASS_Am_231	231.04556 * ITM_AMU	isotope mass
ITM_MASS_Am_232	232.04659 * ITM_AMU	isotope mass
ITM_MASS_Am_233	233.04635 * ITM_AMU	isotope mass
ITM_MASS_Am_234	234.04781 * ITM_AMU	isotope mass
ITM_MASS_Am_235	235.04795 * ITM_AMU	isotope mass
ITM_MASS_Am_236	236.04958 * ITM_AMU	isotope mass
ITM_MASS_Am_237	237.050000 * ITM_AMU	isotope mass
ITM_MASS_Am_238	238.051980 * ITM_AMU	isotope mass
ITM_MASS_Am_239	239.0530245 * ITM_AMU	isotope mass
ITM_MASS_Am_240	240.055300 * ITM_AMU	isotope mass
ITM_MASS_Am_241	241.0568291 * ITM_AMU	isotope mass
ITM_MASS_Am_242	242.0595492 * ITM_AMU	isotope mass
ITM_MASS_Am_243	243.0613811 * ITM_AMU	isotope mass
ITM_MASS_Am_244	244.0642848 * ITM_AMU	isotope mass
ITM_MASS_Am_245	245.066452 * ITM_AMU	isotope mass
ITM_MASS_Am_246	246.069775 * ITM_AMU	isotope mass
ITM_MASS_Am_247	247.07209 * ITM_AMU	isotope mass
ITM_MASS_Am_248	248.07575 * ITM_AMU	isotope mass
ITM_MASS_Am_249	249.07848 * ITM_AMU	isotope mass
ITM_MASS_Cm_233	233.050770 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Cm_234	234.050160 * ITM_AMU	isotope mass
ITM_MASS_Cm_235	235.05143 * ITM_AMU	isotope mass
ITM_MASS_Cm_236	236.05141 * ITM_AMU	isotope mass
ITM_MASS_Cm_237	237.05290 * ITM_AMU	isotope mass
ITM_MASS_Cm_238	238.053030 * ITM_AMU	isotope mass
ITM_MASS_Cm_239	239.05496 * ITM_AMU	isotope mass
ITM_MASS_Cm_240	240.0555295 * ITM_AMU	isotope mass
ITM_MASS_Cm_241	241.0576530 * ITM_AMU	isotope mass
ITM_MASS_Cm_242	242.0588358 * ITM_AMU	isotope mass
ITM_MASS_Cm_243	243.0613891 * ITM_AMU	isotope mass
ITM_MASS_Cm_244	244.0627526 * ITM_AMU	isotope mass
ITM_MASS_Cm_245	245.0654912 * ITM_AMU	isotope mass
ITM_MASS_Cm_246	246.0672237 * ITM_AMU	isotope mass
ITM_MASS_Cm_247	247.070354 * ITM_AMU	isotope mass
ITM_MASS_Cm_248	248.072349 * ITM_AMU	isotope mass
ITM_MASS_Cm_249	249.075953 * ITM_AMU	isotope mass
ITM_MASS_Cm_250	250.078357 * ITM_AMU	isotope mass
ITM_MASS_Cm_251	251.082285 * ITM_AMU	isotope mass
ITM_MASS_Cm_252	252.08487 * ITM_AMU	isotope mass
ITM_MASS_Bk_235	235.05658 * ITM_AMU	isotope mass
ITM_MASS_Bk_236	236.05733 * ITM_AMU	isotope mass
ITM_MASS_Bk_237	237.05700 * ITM_AMU	isotope mass
ITM_MASS_Bk_238	238.05828 * ITM_AMU	isotope mass
ITM_MASS_Bk_239	239.05828 * ITM_AMU	isotope mass
ITM_MASS_Bk_240	240.05976 * ITM_AMU	isotope mass
ITM_MASS_Bk_241	241.06023 * ITM_AMU	isotope mass
ITM_MASS_Bk_242	242.06198 * ITM_AMU	isotope mass
ITM_MASS_Bk_243	243.063008 * ITM_AMU	isotope mass
ITM_MASS_Bk_244	244.065181 * ITM_AMU	isotope mass
ITM_MASS_Bk_245	245.0663616 * ITM_AMU	isotope mass
ITM_MASS_Bk_246	246.068670 * ITM_AMU	isotope mass
ITM_MASS_Bk_247	247.070307 * ITM_AMU	isotope mass
ITM_MASS_Bk_248	248.073090 * ITM_AMU	isotope mass
ITM_MASS_Bk_249	249.0749867 * ITM_AMU	isotope mass
ITM_MASS_Bk_250	250.078317 * ITM_AMU	isotope mass
ITM_MASS_Bk_251	251.080760 * ITM_AMU	isotope mass
ITM_MASS_Bk_252	252.08431 * ITM_AMU	isotope mass
ITM_MASS_Bk_253	253.08688 * ITM_AMU	isotope mass
ITM_MASS_Bk_254	254.09060 * ITM_AMU	isotope mass
ITM_MASS_Cf_237	237.06207 * ITM_AMU	isotope mass
ITM_MASS_Cf_238	238.06141 * ITM_AMU	isotope mass
ITM_MASS_Cf_239	239.06242 * ITM_AMU	isotope mass
ITM_MASS_Cf_240	240.06230 * ITM_AMU	isotope mass
ITM_MASS_Cf_241	241.06373 * ITM_AMU	isotope mass
ITM_MASS_Cf_242	242.063700 * ITM_AMU	isotope mass
ITM_MASS_Cf_243	243.06543 * ITM_AMU	isotope mass
ITM_MASS_Cf_244	244.066001 * ITM_AMU	isotope mass
ITM_MASS_Cf_245	245.068049 * ITM_AMU	isotope mass
ITM_MASS_Cf_246	246.0688053 * ITM_AMU	isotope mass
ITM_MASS_Cf_247	247.071001 * ITM_AMU	isotope mass
ITM_MASS_Cf_248	248.072185 * ITM_AMU	isotope mass
ITM_MASS_Cf_249	249.0748535 * ITM_AMU	isotope mass
ITM_MASS_Cf_250	250.0764061 * ITM_AMU	isotope mass
ITM_MASS_Cf_251	251.079587 * ITM_AMU	isotope mass
ITM_MASS_Cf_252	252.081626 * ITM_AMU	isotope mass
ITM_MASS_Cf_253	253.085133 * ITM_AMU	isotope mass
ITM_MASS_Cf_254	254.087323 * ITM_AMU	isotope mass
ITM_MASS_Cf_255	255.09105 * ITM_AMU	isotope mass
ITM_MASS_Cf_256	256.09344 * ITM_AMU	isotope mass
ITM_MASS_Es_240	240.06892 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Es_241	241.06854 * ITM_AMU	isotope mass
ITM_MASS_Es_242	242.06975 * ITM_AMU	isotope mass
ITM_MASS_Es_243	243.06955 * ITM_AMU	isotope mass
ITM_MASS_Es_244	244.07088 * ITM_AMU	isotope mass
ITM_MASS_Es_245	245.07132 * ITM_AMU	isotope mass
ITM_MASS_Es_246	246.07290 * ITM_AMU	isotope mass
ITM_MASS_Es_247	247.073660 * ITM_AMU	isotope mass
ITM_MASS_Es_248	248.075470 * ITM_AMU	isotope mass
ITM_MASS_Es_249	249.076410 * ITM_AMU	isotope mass
ITM_MASS_Es_250	250.07861 * ITM_AMU	isotope mass
ITM_MASS_Es_251	251.079992 * ITM_AMU	isotope mass
ITM_MASS_Es_252	252.082980 * ITM_AMU	isotope mass
ITM_MASS_Es_253	253.0848247 * ITM_AMU	isotope mass
ITM_MASS_Es_254	254.088022 * ITM_AMU	isotope mass
ITM_MASS_Es_255	255.090273 * ITM_AMU	isotope mass
ITM_MASS_Es_256	256.09360 * ITM_AMU	isotope mass
ITM_MASS_Es_257	257.09598 * ITM_AMU	isotope mass
ITM_MASS_Es_258	258.09952 * ITM_AMU	isotope mass
ITM_MASS_Fm_242	242.07343 * ITM_AMU	isotope mass
ITM_MASS_Fm_243	243.07435 * ITM_AMU	isotope mass
ITM_MASS_Fm_244	244.07408 * ITM_AMU	isotope mass
ITM_MASS_Fm_245	245.07539 * ITM_AMU	isotope mass
ITM_MASS_Fm_246	246.075300 * ITM_AMU	isotope mass
ITM_MASS_Fm_247	247.07685 * ITM_AMU	isotope mass
ITM_MASS_Fm_248	248.077195 * ITM_AMU	isotope mass
ITM_MASS_Fm_249	249.07903 * ITM_AMU	isotope mass
ITM_MASS_Fm_250	250.079521 * ITM_AMU	isotope mass
ITM_MASS_Fm_251	251.081575 * ITM_AMU	isotope mass
ITM_MASS_Fm_252	252.082467 * ITM_AMU	isotope mass
ITM_MASS_Fm_253	253.085185 * ITM_AMU	isotope mass
ITM_MASS_Fm_254	254.0868542 * ITM_AMU	isotope mass
ITM_MASS_Fm_255	255.089962 * ITM_AMU	isotope mass
ITM_MASS_Fm_256	256.091773 * ITM_AMU	isotope mass
ITM_MASS_Fm_257	257.095105 * ITM_AMU	isotope mass
ITM_MASS_Fm_258	258.09708 * ITM_AMU	isotope mass
ITM_MASS_Fm_259	259.10060 * ITM_AMU	isotope mass
ITM_MASS_Fm_260	260.10268 * ITM_AMU	isotope mass
ITM_MASS_Md_245	245.08083 * ITM_AMU	isotope mass
ITM_MASS_Md_246	246.08189 * ITM_AMU	isotope mass
ITM_MASS_Md_247	247.08164 * ITM_AMU	isotope mass
ITM_MASS_Md_248	248.08282 * ITM_AMU	isotope mass
ITM_MASS_Md_249	249.08301 * ITM_AMU	isotope mass
ITM_MASS_Md_250	250.08442 * ITM_AMU	isotope mass
ITM_MASS_Md_251	251.08484 * ITM_AMU	isotope mass
ITM_MASS_Md_252	252.08656 * ITM_AMU	isotope mass
ITM_MASS_Md_253	253.08728 * ITM_AMU	isotope mass
ITM_MASS_Md_254	254.08966 * ITM_AMU	isotope mass
ITM_MASS_Md_255	255.091083 * ITM_AMU	isotope mass
ITM_MASS_Md_256	256.094060 * ITM_AMU	isotope mass
ITM_MASS_Md_257	257.095541 * ITM_AMU	isotope mass
ITM_MASS_Md_258	258.098431 * ITM_AMU	isotope mass
ITM_MASS_Md_259	259.10051 * ITM_AMU	isotope mass
ITM_MASS_Md_260	260.10365 * ITM_AMU	isotope mass
ITM_MASS_Md_261	261.10572 * ITM_AMU	isotope mass
ITM_MASS_Md_262	262.10887 * ITM_AMU	isotope mass
ITM_MASS_No_248	248.08660 * ITM_AMU	isotope mass
ITM_MASS_No_249	249.08783 * ITM_AMU	isotope mass
ITM_MASS_No_250	250.08751 * ITM_AMU	isotope mass
ITM_MASS_No_251	251.08901 * ITM_AMU	isotope mass
ITM_MASS_No_252	252.088977 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_No_253	253.09068 * ITM_AMU	isotope mass
ITM_MASS_No_254	254.090955 * ITM_AMU	isotope mass
ITM_MASS_No_255	255.093241 * ITM_AMU	isotope mass
ITM_MASS_No_256	256.094283 * ITM_AMU	isotope mass
ITM_MASS_No_257	257.096877 * ITM_AMU	isotope mass
ITM_MASS_No_258	258.09821 * ITM_AMU	isotope mass
ITM_MASS_No_259	259.10103 * ITM_AMU	isotope mass
ITM_MASS_No_260	260.10264 * ITM_AMU	isotope mass
ITM_MASS_No_261	261.10575 * ITM_AMU	isotope mass
ITM_MASS_No_262	262.10730 * ITM_AMU	isotope mass
ITM_MASS_No_263	263.11055 * ITM_AMU	isotope mass
ITM_MASS_No_264	264.11235 * ITM_AMU	isotope mass
ITM_MASS_Lr_251	251.09436 * ITM_AMU	isotope mass
ITM_MASS_Lr_252	252.09537 * ITM_AMU	isotope mass
ITM_MASS_Lr_253	253.09521 * ITM_AMU	isotope mass
ITM_MASS_Lr_254	254.09645 * ITM_AMU	isotope mass
ITM_MASS_Lr_255	255.09668 * ITM_AMU	isotope mass
ITM_MASS_Lr_256	256.09863 * ITM_AMU	isotope mass
ITM_MASS_Lr_257	257.09956 * ITM_AMU	isotope mass
ITM_MASS_Lr_258	258.10181 * ITM_AMU	isotope mass
ITM_MASS_Lr_259	259.102900 * ITM_AMU	isotope mass
ITM_MASS_Lr_260	260.10550 * ITM_AMU	isotope mass
ITM_MASS_Lr_261	261.10688 * ITM_AMU	isotope mass
ITM_MASS_Lr_262	262.10963 * ITM_AMU	isotope mass
ITM_MASS_Lr_263	263.11129 * ITM_AMU	isotope mass
ITM_MASS_Lr_264	264.11404 * ITM_AMU	isotope mass
ITM_MASS_Lr_265	265.11584 * ITM_AMU	isotope mass
ITM_MASS_Lr_266	266.11931 * ITM_AMU	isotope mass
ITM_MASS_Rf_253	253.10069 * ITM_AMU	isotope mass
ITM_MASS_Rf_254	254.10018 * ITM_AMU	isotope mass
ITM_MASS_Rf_255	255.10134 * ITM_AMU	isotope mass
ITM_MASS_Rf_256	256.101166 * ITM_AMU	isotope mass
ITM_MASS_Rf_257	257.10299 * ITM_AMU	isotope mass
ITM_MASS_Rf_258	258.10349 * ITM_AMU	isotope mass
ITM_MASS_Rf_259	259.105640 * ITM_AMU	isotope mass
ITM_MASS_Rf_260	260.10644 * ITM_AMU	isotope mass
ITM_MASS_Rf_261	261.108770 * ITM_AMU	isotope mass
ITM_MASS_Rf_262	262.10993 * ITM_AMU	isotope mass
ITM_MASS_Rf_263	263.11255 * ITM_AMU	isotope mass
ITM_MASS_Rf_264	264.11399 * ITM_AMU	isotope mass
ITM_MASS_Rf_265	265.11670 * ITM_AMU	isotope mass
ITM_MASS_Rf_266	266.11796 * ITM_AMU	isotope mass
ITM_MASS_Rf_267	267.12153 * ITM_AMU	isotope mass
ITM_MASS_Rf_268	268.12364 * ITM_AMU	isotope mass
ITM_MASS_Db_255	255.10740 * ITM_AMU	isotope mass
ITM_MASS_Db_256	256.10813 * ITM_AMU	isotope mass
ITM_MASS_Db_257	257.10772 * ITM_AMU	isotope mass
ITM_MASS_Db_258	258.10923 * ITM_AMU	isotope mass
ITM_MASS_Db_259	259.10961 * ITM_AMU	isotope mass
ITM_MASS_Db_260	260.11130 * ITM_AMU	isotope mass
ITM_MASS_Db_261	261.11206 * ITM_AMU	isotope mass
ITM_MASS_Db_262	262.11408 * ITM_AMU	isotope mass
ITM_MASS_Db_263	263.11499 * ITM_AMU	isotope mass
ITM_MASS_Db_264	264.11740 * ITM_AMU	isotope mass
ITM_MASS_Db_265	265.11860 * ITM_AMU	isotope mass
ITM_MASS_Db_266	266.12103 * ITM_AMU	isotope mass
ITM_MASS_Db_267	267.12238 * ITM_AMU	isotope mass
ITM_MASS_Db_268	268.12545 * ITM_AMU	isotope mass
ITM_MASS_Db_269	269.12746 * ITM_AMU	isotope mass
ITM_MASS_Db_270	270.13071 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Sg_258	258.11317 * ITM_AMU	isotope mass
ITM_MASS_Sg_259	259.11450 * ITM_AMU	isotope mass
ITM_MASS_Sg_260	260.114420 * ITM_AMU	isotope mass
ITM_MASS_Sg_261	261.11612 * ITM_AMU	isotope mass
ITM_MASS_Sg_262	262.11640 * ITM_AMU	isotope mass
ITM_MASS_Sg_263	263.11832 * ITM_AMU	isotope mass
ITM_MASS_Sg_264	264.11893 * ITM_AMU	isotope mass
ITM_MASS_Sg_265	265.121110 * ITM_AMU	isotope mass
ITM_MASS_Sg_266	266.12207 * ITM_AMU	isotope mass
ITM_MASS_Sg_267	267.12443 * ITM_AMU	isotope mass
ITM_MASS_Sg_268	268.12561 * ITM_AMU	isotope mass
ITM_MASS_Sg_269	269.12876 * ITM_AMU	isotope mass
ITM_MASS_Sg_270	270.13033 * ITM_AMU	isotope mass
ITM_MASS_Sg_271	271.13347 * ITM_AMU	isotope mass
ITM_MASS_Sg_272	272.13516 * ITM_AMU	isotope mass
ITM_MASS_Sg_273	273.13822 * ITM_AMU	isotope mass
ITM_MASS_Bh_260	260.12197 * ITM_AMU	isotope mass
ITM_MASS_Bh_261	261.12166 * ITM_AMU	isotope mass
ITM_MASS_Bh_262	262.12289 * ITM_AMU	isotope mass
ITM_MASS_Bh_263	263.12304 * ITM_AMU	isotope mass
ITM_MASS_Bh_264	264.12460 * ITM_AMU	isotope mass
ITM_MASS_Bh_265	265.12515 * ITM_AMU	isotope mass
ITM_MASS_Bh_266	266.12694 * ITM_AMU	isotope mass
ITM_MASS_Bh_267	267.12765 * ITM_AMU	isotope mass
ITM_MASS_Bh_268	268.12976 * ITM_AMU	isotope mass
ITM_MASS_Bh_269	269.13069 * ITM_AMU	isotope mass
ITM_MASS_Bh_270	270.13362 * ITM_AMU	isotope mass
ITM_MASS_Bh_271	271.13518 * ITM_AMU	isotope mass
ITM_MASS_Bh_272	272.13803 * ITM_AMU	isotope mass
ITM_MASS_Bh_273	273.13962 * ITM_AMU	isotope mass
ITM_MASS_Bh_274	274.14244 * ITM_AMU	isotope mass
ITM_MASS_Bh_275	275.14425 * ITM_AMU	isotope mass
ITM_MASS_Hs_263	263.12856 * ITM_AMU	isotope mass
ITM_MASS_Hs_264	264.128390 * ITM_AMU	isotope mass
ITM_MASS_Hs_265	265.13009 * ITM_AMU	isotope mass
ITM_MASS_Hs_266	266.13010 * ITM_AMU	isotope mass
ITM_MASS_Hs_267	267.13179 * ITM_AMU	isotope mass
ITM_MASS_Hs_268	268.13216 * ITM_AMU	isotope mass
ITM_MASS_Hs_269	269.13406 * ITM_AMU	isotope mass
ITM_MASS_Hs_270	270.13465 * ITM_AMU	isotope mass
ITM_MASS_Hs_271	271.13766 * ITM_AMU	isotope mass
ITM_MASS_Hs_272	272.13905 * ITM_AMU	isotope mass
ITM_MASS_Hs_273	273.14199 * ITM_AMU	isotope mass
ITM_MASS_Hs_274	274.14313 * ITM_AMU	isotope mass
ITM_MASS_Hs_275	275.14595 * ITM_AMU	isotope mass
ITM_MASS_Hs_276	276.14721 * ITM_AMU	isotope mass
ITM_MASS_Hs_277	277.14984 * ITM_AMU	isotope mass
ITM_MASS_Mt_265	265.13615 * ITM_AMU	isotope mass
ITM_MASS_Mt_266	266.13730 * ITM_AMU	isotope mass
ITM_MASS_Mt_267	267.13731 * ITM_AMU	isotope mass
ITM_MASS_Mt_268	268.13873 * ITM_AMU	isotope mass
ITM_MASS_Mt_269	269.13906 * ITM_AMU	isotope mass
ITM_MASS_Mt_270	270.14066 * ITM_AMU	isotope mass
ITM_MASS_Mt_271	271.14114 * ITM_AMU	isotope mass
ITM_MASS_Mt_272	272.14374 * ITM_AMU	isotope mass
ITM_MASS_Mt_273	273.14491 * ITM_AMU	isotope mass
ITM_MASS_Mt_274	274.14749 * ITM_AMU	isotope mass
ITM_MASS_Mt_275	275.14865 * ITM_AMU	isotope mass
ITM_MASS_Mt_276	276.15116 * ITM_AMU	isotope mass
ITM_MASS_Mt_277	277.15242 * ITM_AMU	isotope mass

Name	Value	Description
ITM_MASS_Mt_278	278.15481 * ITM_AMU	isotope mass
ITM_MASS_Mt_279	279.15619 * ITM_AMU	isotope mass
ITM_MASS_Ds_267	267.14434 * ITM_AMU	isotope mass
ITM_MASS_Ds_268	268.14380 * ITM_AMU	isotope mass
ITM_MASS_Ds_269	269.14512 * ITM_AMU	isotope mass
ITM_MASS_Ds_270	270.14472 * ITM_AMU	isotope mass
ITM_MASS_Ds_271	271.14606 * ITM_AMU	isotope mass
ITM_MASS_Ds_272	272.14632 * ITM_AMU	isotope mass
ITM_MASS_Ds_273	273.14886 * ITM_AMU	isotope mass
ITM_MASS_Ds_274	274.14949 * ITM_AMU	isotope mass
ITM_MASS_Ds_275	275.15218 * ITM_AMU	isotope mass
ITM_MASS_Ds_276	276.15303 * ITM_AMU	isotope mass
ITM_MASS_Ds_277	277.15565 * ITM_AMU	isotope mass
ITM_MASS_Ds_278	278.15647 * ITM_AMU	isotope mass
ITM_MASS_Ds_279	279.15886 * ITM_AMU	isotope mass
ITM_MASS_Ds_280	280.15980 * ITM_AMU	isotope mass
ITM_MASS_Ds_281	281.16206 * ITM_AMU	isotope mass
ITM_MASS_Rg_272	272.15362 * ITM_AMU	isotope mass
ITM_MASS_Rg_273	273.15368 * ITM_AMU	isotope mass
ITM_MASS_Rg_274	274.15571 * ITM_AMU	isotope mass
ITM_MASS_Rg_275	275.15614 * ITM_AMU	isotope mass
ITM_MASS_Rg_276	276.15849 * ITM_AMU	isotope mass
ITM_MASS_Rg_277	277.15952 * ITM_AMU	isotope mass
ITM_MASS_Rg_278	278.16160 * ITM_AMU	isotope mass
ITM_MASS_Rg_279	279.16247 * ITM_AMU	isotope mass
ITM_MASS_Rg_280	280.16447 * ITM_AMU	isotope mass
ITM_MASS_Rg_281	281.16537 * ITM_AMU	isotope mass
ITM_MASS_Rg_282	282.16749 * ITM_AMU	isotope mass
ITM_MASS_Rg_283	283.16842 * ITM_AMU	isotope mass
ITM_MASS_Cn_277	277.16394 * ITM_AMU	isotope mass
ITM_MASS_Cn_278	278.16431 * ITM_AMU	isotope mass
ITM_MASS_Cn_279	279.16655 * ITM_AMU	isotope mass
ITM_MASS_Cn_280	280.16704 * ITM_AMU	isotope mass
ITM_MASS_Cn_281	281.16929 * ITM_AMU	isotope mass
ITM_MASS_Cn_282	282.16977 * ITM_AMU	isotope mass
ITM_MASS_Cn_283	283.17179 * ITM_AMU	isotope mass
ITM_MASS_Cn_284	284.17238 * ITM_AMU	isotope mass
ITM_MASS_Cn_285	285.17411 * ITM_AMU	isotope mass
ITM_MASS_Uut_283	283.17645 * ITM_AMU	isotope mass
ITM_MASS_Uut_284	284.17808 * ITM_AMU	isotope mass
ITM_MASS_Uut_285	285.17873 * ITM_AMU	isotope mass
ITM_MASS_Uut_286	286.18048 * ITM_AMU	isotope mass
ITM_MASS_Uut_287	287.18105 * ITM_AMU	isotope mass
ITM_MASS_Uuq_285	285.18370 * ITM_AMU	isotope mass
ITM_MASS_Uuq_286	286.18386 * ITM_AMU	isotope mass
ITM_MASS_Uuq_287	287.18560 * ITM_AMU	isotope mass
ITM_MASS_Uuq_288	288.18569 * ITM_AMU	isotope mass
ITM_MASS_Uuq_289	289.18728 * ITM_AMU	isotope mass
ITM_MASS_Uup_287	287.19119 * ITM_AMU	isotope mass
ITM_MASS_Uup_288	288.19249 * ITM_AMU	isotope mass
ITM_MASS_Uup_289	289.19272 * ITM_AMU	isotope mass
ITM_MASS_Uup_290	290.19414 * ITM_AMU	isotope mass
ITM_MASS_Uup_291	291.19438 * ITM_AMU	isotope mass
ITM_MASS_Uuh_289	289.19886 * ITM_AMU	isotope mass
ITM_MASS_Uuh_290	290.19859 * ITM_AMU	isotope mass
ITM_MASS_Uuh_291	291.20001 * ITM_AMU	isotope mass
ITM_MASS_Uuh_292	292.19979 * ITM_AMU	isotope mass
ITM_MASS_Uus_291	291.20656 * ITM_AMU	isotope mass
ITM_MASS_Uus_292	292.20755 * ITM_AMU	isotope mass
ITM_MASS_Uuo_293	293.21467 * ITM_AMU	isotope mass

Name	Value	Description
UAL_CLOSEST_SAMPLE	1	Closest time slice
UAL_PREVIOUS_SAMPLE	2	Previous time slice
UAL_INTERPOLATION	3	Interpolation in time
ITM_INVALID_INT	-999999999	Value for invalid/uninitialized integer field
ITM_INVALID_FLOAT	-9.0e40	Value for invalid/uninitialized float field
ITM_CONSTANTS_VERSION	$Id: itm_constants.xml 2024 2015-03-24 15:22:07Z tjohnson $	

itm_constants.xml (12.3.2.1)
All constants are double precision floats (`R8`).

12.3.3 Invalid Data Base Entries

The ITM data base does not allow for setting data base entries directly to invalid in case they should not be set. Since the Universal Access Layer (UAL) (29) always pulls out complete CPOs, i.e. complete data structures, of which not all fields may be filled, the problem arose of how to identify those fields which have not been filled. In the case of arrays, this is simply done by not associating the corresponding pointer.
In the case of scalars, however, unique values for floats and integers had to be defined to identify empty fields. These values identify invalid data base entries and can be tested through comparison.
The values for invalid data base entries in Fortran90 are defined below:

```
INTEGER,  PARAMETER :: itm_int_invalid = -999999999
REAL(R8), PARAMETER :: itm_r8_invalid = -9.0D40
```

They have been found to be safely out of any physical range for the affected fields such that no accidental confusion with real values may occur.

The Fortran90 module defining these values `itm_types.f90` is hosted by the project **itmshared** .
To check out the relevant files please do

```
        svn checkout https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_types target_dir
```

The module also includes three functions of type boolean `itm_is_valid_int4` , `itm_is_valid_int8` , and `itm_is_valid_real8` which are overloaded under the interface `itm_is_valid` to check whether a data base entry has been filled.

Example:

```
if (itm_is_valid(equilibrium%global_param%i_plasma)) then
  write(*, *) 'Plasma current Ip = ', equilibrium%global_param%i_plasma
end if
```

12.3.4 Enumerated datatypes/Identifiers

This section concerns how to specify the origin of data in certain types of CPOs. The specification is performed using the datatype `identifier` . The following specifies the conventions of the allowed enumerated datatypes.

- **12.3.4.1 cocos_identifier**

```
Translation table for coordinate conventions for toroidal geometry, COCOS.

For a detailed description about the COCOS see [O. Sauter and S. Yu. Medvedev, Computer Physics C

\version "$Id: cocos_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

Fortran interface example:

```
use cocos_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
1	COCOS_1	Coordinate specifications: (R,phi,Z) ; (rho,theta,phi); Bp = + 1/2pi grad(phi) x grad(psi) Used in e.g. psitbx, Toray-GA
2	COCOS_2	Coordinate specifications: (R,Z,phi) ; (rho,theta,phi); Bp = + 1/2pi grad(phi) x grad(psi) Used by e.g. Chease, ONETWO, Hinton-Hazeltine, LION, XTOR, MEUDAS, MARS, MARS-F
3	COCOS_3	Coordinate specifications: (R,phi,Z) ; (rho,phi,theta); Bp = - 1/2pi grad(phi) x grad(psi) Used by e.g. Freiberg, CAXE, KINX, GRAY, CQL3D, CarMa, EFIT, ORB5, GBS, GT5D
4	COCOS_4	Coordinate specifications: (R,Z,phi) ; (rho,phi,theta); Bp = - 1/2pi grad(phi) x grad(psi)
5	COCOS_5	Coordinate specifications: (R,phi,Z) ; (rho,phi,theta); Bp = + 1/2pi grad(phi) x grad(psi) Used by e.g. TORBEAM, GENRAY
6	COCOS_6	Coordinate specifications: (R,Z,phi) ; (rho,phi,theta); Bp = + 1/2pi grad(phi) x grad(psi)
7	COCOS_7	Coordinate specifications: (R,phi,Z) ; (rho,theta,phi); Bp = - 1/2pi grad(phi) x grad(psi)
8	COCOS_8	Coordinate specifications: (R,Z,phi) ; (rho,theta,phi); Bp = - 1/2pi grad(phi) x grad(psi)
11	COCOS_11	Coordinate specifications: (R,phi,Z) ; (rho,theta,phi); Bp = + grad(phi) x grad(psi). Used by e.g. ITER, Boozer
12	COCOS_12	Coordinate specifications: (R,Z,phi) ; (rho,theta,phi); Bp = + grad(phi) x grad(psi) Used by e.g. GENE
13	COCOS_13	Coordinate specifications: (R,phi,Z) ; (rho,phi,theta); Bp = - grad(phi) x grad(psi). Used by e.g. CLISTE, EQUAL, GEC, HELENA, EFDA-ITM
14	COCOS_14	Coordinate specifications: (R,Z,phi) ; (rho,phi,theta); Bp = - grad(phi) x grad(psi)
15	COCOS_15	Coordinate specifications: (R,phi,Z) ; (rho,phi,theta); Bp = + grad(phi) x grad(psi) Used by e.g. TORBEAM, GENRAY
16	COCOS_16	Coordinate specifications: (R,Z,phi) ; (rho,phi,theta); Bp = + grad(phi) x grad(psi)
17	COCOS_17	Coordinate specifications: (R,phi,Z) ; (rho,theta,phi); Bp = - grad(phi) x grad(psi). Used by e.g. LIUQE, psitbx
18	COCOS_18	Coordinate specifications: (R,Z,phi) ; (rho,theta,phi); Bp = - grad(phi) x grad(psi)

cocos_identifier.xml (12.3.4.1)

- **12.3.4.2 coordinate_identifier**

```
Translation table for coordinate_identifier_definitions.
Implemented in: utilities.xsd, complexType::weighted_markers/variable_ids

Used in:
- distribution/distri_vec/dist_func/markers/variable_ids
- distsource/source/markers/variable_ids

\version "$Id: coordinate_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/distribution/distri_vec/dist_func/markers/variable_ids
```

```
/distsource/source/markers/variable_ids
```

Fortran interface example:

```
use coordinate_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified

Flag	Id	Description
1	X	First cartesian coordinate in the horizontal plane [m]
2	Y	Second cartesian coordinate in the horizontal plane (grad(X) x grad(Y) = grad(Z)) [m]
4	R	Major radius [m]
5	Z	Vertical position Z [m]
6	phi	Toroidal angle [rad]
7	psi	Poloidal magnetic flux [T*m^2]
8	theta	Geometrical poloidal angle
107	rho_tor	The square root of the toroidal flux, sqrt((Phi-Phi_axis)/pi/B0) [m]
109	theta_b	Straight field line poloidal angle [rad]
110	vx	Velocity component in the x-direction [m/s]
111	vy	Velocity component in the z-direction [m/s]
112	vz	Velocity component in the z-direction [m/s]
113	vel	Magnitude of the velocity [m/s]
114	vphi	Velocity component in the toroidal direction [m/s]
115	vpar	Velocity component parallel to the magnetic field [m/s]
116	vperp	Velocity perpendicular to the magnetic field [m/s]
117	E	Hamiltonian energy [eV]
118	pphi	Canonical toroidal angular momentum [kg m**2/s]
119	mu	magnetic moment [J/T]
120	Lambda	mu/E [1/T]
121	pitch	vpar/v [1]
122	vel_thermal	Velocity normalised to the local thermal velocity of the thermal ions (of the relevant species)
123	momentum	Modulus of the relativistic momentum vector
124	parallel_momentum	Component of the relativistic momentum vector parallel to the magnetic field
125	perpendicular_momentum	Component of the relativistic momentum vector perpendicular to the magnetic field
126	xi_at_min_B	Pitch, i.e. ratio between the parallel over the perpendicular velocity, at the minimum value of the magnetic field strength along the guiding centre orbit

coordinate_identifier.xml (12.3.4.2)

- **12.3.4.3 coredelta_identifier**

```
Translation table for coredelta
Used in the cpo:
  coredelta%values(:)%deltaid

\version "$Id: coredelta_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/coredelta/values/deltaid
```

Fortran interface example:

```
use coredelta_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	Unspecified coredelta
1	pellet	Coredelta from a pellet
2	sawtooth	Coredelta from a sawtooth
3	elm	Coredelta from an ELM
4	combined	Combined coredelta from multiple types of events
5	not_provided	No data provided
1000	derived	Derived from another source; duplicating data

coredelta_identifier.xml (12.3.4.3)

- **12.3.4.4 coreneutral_identifier**

```
Translation table for identifying different types of neutral.
The neutrals are characterised by their energy and source of the neutrals.

\version "$Id: coreneutral_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/coredelta/compositions/neutralscomp/type
```

```
/coreimpur/compositions/neutralscomp/type
```

```
/coreneutrals/compositions/neutralscomp/type
```

```
/coreneutrals/neutcompo/neutral/type
```

```
/coreprof/compositions/neutralscomp/type
```

```
/coresource/compositions/neutralscomp/type
```

```
/coretransp/compositions/neutralscomp/type
```

```
/distribution/compositions/neutralscomp/type
```

```
/distsource/compositions/neutralscomp/type
```

```
/edge/compositions/neutralscomp/type
```

```
/neoclassic/compositions/neutralscomp/type
```

```
/waves/coherentwave/compositions/neutralscomp/type
```

Fortran interface example:

```
use coreneutral_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	cold	Cold neutrals
1	thermal	Thermal neutrals
2	fast	Fast neutrals
3	nbi	NBI neutrals

coreneutral_identifier.xml (12.3.4.4)

- **12.3.4.5 coresource_identifier**

```
Translation table for sources of particles, momentum and heat.
Used in the cpo: coresource

\version "$Id: coresource_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/coresource/values/sourceid
```

Fortran interface example:

```
use coresource_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	Unspecified source type
1	nbi	Source from Neutral Beam Injection
2	ec	Sources from electron cyclotron heating heating and current drive
3	lh	Sources from lower hybrid heating and current drive
4	ic	Sources from heating at the ion cyclotron range of frequencies
5	fusion	Sources from fusion reactions, e.g. alpha particle heating
6	pellet	Sources from injection
7	ic_nbi	A combination of the ic and nbi sources
8	ic_fusion	A combination of the ic and fusion sources
9	ic_nbi_fusion	A combination of the ic and fusion sources
10	ec_lh	A combination of the ec and lh sources
11	ec_ic	A combination of the ec and ic sources
12	lh_ic	A combination of the lh and ic sources
13	ec_lh_ic	A combination of the ec, lh and ic sources
14	ohmic	Source from ohmic heating
15	brehmstrahlung	Source from bremstrahlung
16	cyclotronradiation	Source from cyclotron radiation
17	syncrotronradiation	Source from syncrotron radiation
18	cyclotron_syncrotronradiation	Source from syncrotron radiation
19	lineradiation	Source from line radiation
20	equipartition	Collisional equipartition
21	gaspuff	Gas puff
22	killergaspuff	Killer gas puff
23	ionizationlosses	Losses due to ionization
24	coldneutralcooling	Cold neutrals from the edge that enters the plasma
25	particles2wall	Particle pumping by the wall
26	particles2pump	Particle pumping by external pumps
27	database	Source from database entry
28	background	Background source
29	impurity	Impurity source
30	combined	Combined source
31	not_provided	No data provided
32	neoclassical	Neoclassical
33	gaussian	Gaussian
34	runaways	Source run-away processes; includes both electron and ion run-away
1000	unspecified_DERIVED	Derived from another source; duplicating data. Unspecified source type
1001	nbi_DERIVED	Derived from another source; duplicating data. Source from Neutral Beam Injection
1002	ec_DERIVED	Derived from another source; duplicating data. Sources from electron cyclotron heating heating and current drive
1003	lh_DERIVED	Derived from another source; duplicating data. Sources from lower hybrid heating and current drive
1004	ic_DERIVED	Derived from another source; duplicating data. Sources from heating at the ion cyclotron range of frequencies

Flag	Id	Description
1005	fusion_DERIVED	Derived from another source; duplicating data. Sources from fusion reactions, e.g. alpha particle heating
1006	pellet_DERIVED	Derived from another source; duplicating data. Sources from injection
1007	ic_nbi_DERIVED	Derived from another source; duplicating data. A combination of the ic and nbi sources
1008	ic_fusion_DERIVED	Derived from another source; duplicating data. A combination of the ic and fusion sources
1009	ic_nbi_fusion_DERIVED	Derived from another source; duplicating data. A combination of the ic and fusion sources
1010	ec_lh_DERIVED	Derived from another source; duplicating data. A combination of the ec and lh sources
1011	ec_ic_DERIVED	Derived from another source; duplicating data. A combination of the ec and ic sources
1012	lh_ic_DERIVED	Derived from another source; duplicating data. A combination of the lh and ic sources
1013	ec_lh_ic_DERIVED	Derived from another source; duplicating data. A combination of the ec, lh and ic sources
1014	ohmic_DERIVED	Derived from another source; duplicating data. Source from ohmic heating
1015	brehmstrahlung_DERIVED	Derived from another source; duplicating data. Source from bremstrahlung
1016	cyclotronradiation_DERIVED	Derived from another source; duplicating data. Source from cyclotron radiation
1017	syncrotronradiation_DERIVED	Derived from another source; duplicating data. Source from syncrotron radiation
1018	cyclotron_syncrotronradiation_DERIVED	Derived from another source; duplicating data. Source from syncrotron radiation
1019	lineradiation_DERIVED	Derived from another source; duplicating data. Source from line radiation
1020	equipartition_DERIVED	Derived from another source; duplicating data. Collisional equipartition
1021	gaspuff_DERIVED	Derived from another source; duplicating data. Gas puff
1022	killergaspuff_DERIVED	Derived from another source; duplicating data. Killer gas puff
1023	ionizationlosses_DERIVED	Derived from another source; duplicating data. Losses due to ionization
1024	coldneutralcooling_DERIVED	Derived from another source; duplicating data. Cold neutrals from the edge that enters the plasma
1025	particles2wall_DERIVED	Derived from another source; duplicating data. Particle pumping by the wall
1026	particles2pump_DERIVED	Derived from another source; duplicating data. Particle pumping by external pumps
1027	database_DERIVED	Derived from another source; duplicating data. Source from database entry
1028	background_DERIVED	Derived from another source; duplicating data. Background source
1029	impurity_DERIVED	Derived from another source; duplicating data. Impurity source
1030	combined_DERIVED	Derived from another source; duplicating data. Combined source
1031	not_provided_DERIVED	Derived from another source; duplicating data. No data provided
1032	neoclassical_DERIVED	Derived from another source; duplicating data. Neoclassical
1033	gaussian_DERIVED	Derived from another source; duplicating data. Gaussian

coresource_identifier.xml (12.3.4.5)

- **12.3.4.6 coretransp_identifier**

```
Translation table for different types of transport coefficients.

\version "$Id: coretransp_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
coretransp%values(:)%transportid
```

Fortran interface example:

```
use coretransp_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	Unspecified transport type
1	modtransp	Derived from MODTRANSP
2	neoclassical	Neoclassical
3	turbulence_fluxtube	Turbulence / fluxtube code
4	turbulence_global	Turbulence / global code

Flag	Id	Description
5	elm_continuous	Continuous ELM model — gives the ELM averaged profile
6	elm_resolved	Time resolved ELM model
7	ntm	Transport arising from the presence of NTMs
8	sawteeth	Transport arising from the presence of sawteeth
9	pedestal	Transport level to give edge pedestal
10	database	Transport specified by a database entry
11	background	Background transport level
12	combined	Derived from a number of contributions
13	not_provided	No data provided
1000	unspecified_DERIVED	Derived from another source; duplicating data. Unspecified transport type
1001	modtransp_DERIVED	Derived from another source; duplicating data. Derived from MODTRANSP
1002	neoclassical_DERIVED	Derived from another source; duplicating data. Neoclassical
1003	turbulence_fluxtube_DERIVED	Derived from another source; duplicating data. Turbulence / fluxtube code
1004	turbulence_global_DERIVED	Derived from another source; duplicating data. Turbulence / global code
1005	elm_continuous_DERIVED	Derived from another source; duplicating data. Continuous ELM model — gives the ELM averaged profile
1006	elm_resolved_DERIVED	Derived from another source; duplicating data. Time resolved ELM model
1007	ntm_DERIVED	Derived from another source; duplicating data. Transport arising from the presence of NTMs
1008	sawteeth_DERIVED	Derived from another source; duplicating data. Transport arising from the presence of sawteeth
1009	pedestal_DERIVED	Derived from another source; duplicating data. Transport level to give edge pedestal
1010	database_DERIVED	Derived from another source; duplicating data. Transport specified by a database entry
1011	background_DERIVED	Derived from another source; duplicating data. Background transport level
1012	combined_DERIVED	Derived from another source; duplicating data. Derived from a number of contributions
1013	not_provided_DERIVED	Derived from another source; duplicating data. No data provided

coretransp_identifier.xml (12.3.4.6)

- **12.3.4.7 distsource_identifier**

```
Translation table for Heating and Current Drive (HCD) distsource types, i.e. types particles sour

Used in:
- distribution()/distri_vec()/source_id/id
- distsource()/source()/source_id/id

\version "$Id: distsource_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/distsource/source/source_id
```

```
/distribution/distri_vec/source_id
```

Fortran interface example:

```
use distsource_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	NBI	Source from neutral beam injection
2	nuclear	Source from nuclear reaction (reaction type unspecified)
3	DT_N4He	Source from nuclear reaction: T(d,n)4He [D+T-¿He4+n]
4	D3He_P4He	Source from nuclear reaction: He3(d,p)4He [He3+D-¿He4+p]
5	DD_PT	Source from nuclear reaction: D(d,p)T [D+D-¿T+p]

Flag	Id	Description
6	DD_N3He	Source from nuclear reaction: D(d,n)3He [D+D-¿He3+n]
7	runaway	Source from runaway processes

distsource_identifier.xml (12.3.4.7)

- **12.3.4.8 fast_particle_origin_identifier**

```
Translation table for fast_particle_origin_identifier.
Used in:
- corefast/

\version "$Id: fast_particle_origin_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/corefast/values/fastid
```

Fortran interface example:

```
use fast_particle_origin_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	NBI	From NBI heating
2	IC	Accelerated by IC waves
3	EC	Accelerated by EC waves
4	LC	Accelerated by LH waves
5	alpha	Fusion product alpha particle
6	fusion	Fusion product
7	run_away	Run-away acceleration
8	knock_on	Generated by a knock-on collision with a fast particle
9	combined	Combination of fast particles from several sources

fast_particle_origin_identifier.xml (12.3.4.8)

- **12.3.4.9 fast_thermal_filter_identifier**

```
Translation table for fast_thermal_separation_filter_identifier_definition.
Implemented in: utilities.xsd, complexType::fast_thermal_separation_filter/method

\version "$Id: fast_thermal_filter_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/corefast/values/filter/method
```

```
/distribution/distri_vec/fast_filter/method
```

Fortran interface example:

```
use fast_thermal_filter_identifier, only: get_type_value, get_type_name, get_type_description
```

Flag	Id	Description
0	unspecified	unspecified
1	EnergyCutOff	The fast-thermal separation is performed at an given value of particle kinetic energy.
2	EnergyTiCutOff	The fast-thermal separation is performed at an given ratio between the particle kinetic energy and the local thermal ion energy.
3	EnergyTeCutOff	The fast-thermal separation is performed at an given ratio between the particle kinetic energy and the local thermal electron energy.
4	delta_f	The fast particle population is the different between the full population and a thermal Maxwellian.

fast_thermal_filter_identifier.xml (12.3.4.9)

- **12.3.4.10 fokker_planck_source_identifier**

```
Translation table for fokker_planck_source_identifier.
Implemented in: distribution.xsd, complexType::dist_sources_reference/type

Note that the type definitions are not necessarily disjoints sets.
For example wall-firstorbit and wall-coulomb are both subsets of wall.
When describing a wall loss one should always aim to use the most detailed
type available. While when finding all wall losses one has to sum over all
three types: wall, wall-firstorbit and wall-coulomb.

\version "$Id: fokker_planck_source_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/distribution/distri_vec/global_param/sources/source_ref/type
```

```
/distribution/distri_vec/profiles_1d/sources/source_ref/type
```

Fortran interface example:

```
use fokker_planck_source_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	wave	Source/sink from a waves CPO
2	distsource	Source/sink from a distsource CPO
3	wave_and_source	Source/sink from both the waves and the distsource CPOs
4	thermal	Artificial source/sink used to represent transport processes
5	wall	Source/sink from the wall
6	wall_firstorbit	Collisionless wall losses during first orbit from birth
7	wall_coulomb	Wall losses caused by Coloumb collisions
8	atomic	Source/sink due to atomic processes, e.g. CX reactions
9	nuclear	Source/sink due to nuclear reactions

fokker_planck_source_identifier.xml (12.3.4.10)

- **12.3.4.11 pellet_shape_identifier**

```
Translation table for pellet_shape_identifier_definition.
Used in:
- pellet/
```

```
\version "$Id: pellet_shape_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/pellet/shape/type
```

Fortran interface example:

```
use pellet_shape_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	rectangular	Rectangular pellet. Here dimensions(1) is the height [m], dimensions(2) is the width [m] and dimensions(3) is the length [m] of the rectangle.
2	cylindrical	Cylindrical pellet Here dimensions(1) is the radius [m] and dimensions(2) is the height [m] of the cylinder.
3	spherical	Spherical pellet. Here dimensions(1) is the radius [m] of the sphere.

pellet_shape_identifier.xml (12.3.4.11)

- **12.3.4.12 species_reference_identifier**

```
Translation table for species_reference_identifier_definition.
Implemented in:
- utilities.xsd: complexType species_reference

\version "$Id: species_reference_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/distribution/distri_vec/species/type
```

```
/distsource/source/species/type
```

Fortran interface example:

```
use species_reference_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	electron	Electron
2	ion	Ion from compositions/ions
3	impurity	Impurity from compositions/impur
4	neutron	Neutron
5	photon	Photon
6	neutral	Neutral particle, e.g. atom or molecule from charge exchange reactions

species_reference_identifier.xml (12.3.4.12)

- **12.3.4.13 wall_identifier**

```
Translation table for wall_identifier_defintions.

Used in:
- wall cpo

\version "$Id: wall_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/wall/wall2d/wall_id
```

```
/wall/wall3d/wall_id
```

Fortran interface example:

```
use wall_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	equilibrium	Equilibrium wall
2	gas_tight	Gas tight wall
3	FBE	Free boundary equilibrium wall
4	RWM	3D RWM wall (with holes)

wall_identifier.xml (12.3.4.13)

- **12.3.4.14 wave_identifier**

```
Translation table for wave field types.
Used in:
- distribution()/distri_vec()/waves_id/id
- waves()/coherentwave()/waves_id/id

\version "$Id: wave_identifier.xml 2153 2019-01-31 09:23:43Z g2dpc $"
URL: https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants
```

This identifier is used in the following places in the EU-IM CPOs:

```
/waves/coherentwave/wave_id
```

```
/distribution/distri_vec/wave_id
```

Fortran interface example:

```
use wave_identifier, only: get_type_value, get_type_name, get_type_description
```

.

Flag	Id	Description
0	unspecified	unspecified
1	EC	Wave field for electron cyclotron heating and current drive
2	LH	Wave field for lower hybrid heating and current drive
3	IC	Wave field for ion cyclotron frequency heating and current drive

wave_identifier.xml (12.3.4.14)

Compiled versions of the modules can be found in

```
$ITMLIBDIR/itmconstants/lib/$OBJECTCODE
```

where the following values of OBJECTCODE are supported

```
amd64_g95_0.92
amd64_gfortran_4.7
amd64_intel_12
amd64_pgi_10
```

The C equivalent can be found in

```
$ITMLIBDIR/itmconstants/include/
```

and the Python in

```
$ITMLIBDIR/itmconstants/lib/python2.6/
```

A Java version is available but has not yet been released — contact the CPT if you are interested.
(More information about the ITM libraries (15.1).)

12.3.4.15 Example: How to fill coresource/values/sourceid

When filling in an enumerated datatype, like `coresource/values/sourceid` , it is recomended to use the parameters and functions built into the fortran modules associated with each such datatype. These modules are available as part of the UAL package. As an examples we may include the `coresource_identifier` :

```
use coresource_identifier, only: fusion, get_type_name, get_type_description__ind
```

Here the value of the integer-parameter `fusion` is the `Flag` for fusion reactions in the `coresource_identifier` (12.3.4.5) structure (i.e. fusion=5). Once we know the `Flag` we may get the `Id` using the function `Id=get_type_name(Flag)` and the `Description` using the function `Description=get_type_description__ind(Flag)` . These function are available for every datatype.

Below you have an example of how to use these functions:

```
program coresource_example
  use euitm_schemas, only: type_coresource
  use coresource_identifier, only: fusion, get_type_name, get_type_description__ind
  use write_structures, only: open_write_file, write_cpo, close_write_file
  use deallocate_structures, only: deallocate_cpo
  implicit none

  type (type_coresource) :: coresource
  integer :: idx, i

  character*128 :: filename
  integer :: shot, run

  data filename / &
       & 'coresource.cpo' &
       & /
```

```
  allocate(coresource%values(1))
  allocate(coresource%values(1)%sourceid%id(1))
  allocate(coresource%values(1)%sourceid%description(1))
  coresource%values(1)%sourceid%flag = fusion
  coresource%values(1)%sourceid%id = get_type_name(fusion)
  coresource%values(1)%sourceid%description = get_type_description__ind(fusion)

  call open_write_file(1, filename)
  call write_cpo(coresource, 'coresource')
  call close_write_file

  call deallocate_cpo(coresource)

end program coresource_example
```

This example program, and similar examples for other enumerated datatypes, are available in:

```
https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_constants/examples
```

12.3.5 Grid Types in Equilibrium CPO

Equilibria may be represented in a variety of different ways depending on which ITM module has calculated them and which module shall use them. To avoid ambiguity and to allow modules to check which type of equilibrium is stored in the equilibrium CPO, a unique grid identifier is stored in profiles_2d%grid_type.
The grid identified currently consists of 4 strings (at 132 chars) with the following structure (array indices in Fortran notation):

Position	Content
grid_type(1)	integer identifier for grid type
grid_type(2)	string identifier for grid type
grid_type(3)	integer identifier for poloidal angle
grid_type(4)	string identifier for poloidal angle

12.3.5.1 Grid Type Identifier

The currently allowed values (integer and string) for the identifier of the grid type are listed below:

Integer Values	String Value	Description
1	rectangular	Regular grid in (R, Z) .'EFIT-like grid'.
2	inverse	Regular grid in (Ψ, θ) .'flux surface grid'.
3	irregular	Irregular grid. All fields in profiles_2d are given as (ndim1, 1) degenerate 2D matrices, i.e. as lists of vertices (for triangles or quadrilaterals).

12.3.5.2 Poloidal Angle Identifier

The currently allowed values (integer and string) for the identifier of the poloidal angle are listed below:

Integer Values	String Value	Description
1	straight field line	straight field line angle θ as defined in Straight Field Line Coordinates [1147]
2	equal arc	Poloidal angle θ defined by equal arc lengths along flux surfaces
3	polar	Poloidal angle θ in toroidal coordinates as defined in Coordinate System (12.2.1)

[1147] https://www.efda-itm.eu/ITM/html/.html#itm_straight_field_line

12.3.6 Standardized EU-ITM Plasma Bundle

The ITM has agreed on a standardized way to bundle CPOs and control parameters inside KEPLER.

Field names			Type	Description
time			`real`	The synthetic time of the simulation, or for time-dependent workflows; the end of the present time step. For example, consider a time dependent workflows, where physics quantities are update one after the other. Thus, while the physics quantities are updated the various fields below (e.g. the CPOs) may be describe at different time points. In such workflows the this "time"-field describe the time at the end of the present time step. Units: (s)
CONTROL	tau		`real`	time-step (s)
	tau_out		`real`	time interval for saving output (s)
	ETS	amix	`real`	mixing factor
		amix_tr	`real`	mixing factor for profiles
		sigma_source	`integer`	option for origin of plasma electrical conductivity: 0: plasma collisions; 1: transport module; 2: source module
		solver_type	`integer`	choice of numerical solver
		conv_rec	`real`	required fractional convergence
CPOS	MHD	equilibrium	`cpo`	see type (7.9.3.1.32) and fortran (7.9.3.2.15) descriptions
		toroidfield	`cpo`	see type (7.9.3.1.52) and fortran (7.9.3.2.35) descriptions
		mhd	`cpo`	see type (7.9.3.1.40) and fortran (7.9.3.2.23) descriptions
		sawteeth	`cpo`	see type [1148] and fortran [1149] descriptions
	CORE	coreprof	`cpo`	see type (7.9.3.1.24) and fortran (7.9.3.2.7) descriptions
		coretransp	`cpo`	see type (7.9.3.1.26) and fortran (7.9.3.2.9) descriptions
		coresource	`cpo`	see type (7.9.3.1.25) and fortran (7.9.3.2.8) descriptions
		coreimpur	`cpo`	see type (7.9.3.1.22) and fortran (7.9.3.2.5) descriptions
		coreneutral	`cpo`	see type [1150] and fortran [1151] descriptions
		corefast	`cpo`	see type [1152] and fortran [1153] descriptions
		coredelta	`cpo`	see type (7.9.3.1.21) and fortran (7.9.3.2.4) descriptions
		compositionc	`cpo`	see type [1154] and fortran [1155] descriptions
		neoclassic	`cpo`	see type (7.9.3.1.43) and fortran (7.9.3.2.26) descriptions
	EDGE	edge	`cpo`	see type (7.9.3.1.31) and fortran (7.9.3.2.14) descriptions
	HCD	waves	`cpo`	see type (7.9.3.1.56) and fortran (7.9.3.2.39) descriptions
		distsource	`cpo`	see type (7.9.3.1.29) and fortran (7.9.3.2.12) descriptions
		distribution	`cpo`	see type (7.9.3.1.28) and fortran (7.9.3.2.11) descriptions
	MACH	vessel	`cpo`	see type (7.9.3.1.55) and fortran (7.9.3.2.38) descriptions
		wall	`cpo`	see type [1156] and fortran [1157] descriptions
		nbi	`cpo`	see type (7.9.3.1.42) and fortran (7.9.3.2.25) descriptions
		antennas	`cpo`	see type (7.9.3.1.20) and fortran (7.9.3.2.3) descriptions
		ironmodel	`cpo`	see type (7.9.3.1.35) and fortran (7.9.3.2.18) descriptions
		pfsystems	`cpo`	see type (7.9.3.1.45) and fortran (7.9.3.2.28) descriptions
	DIAG	fusiondiag	`cpo`	see type (7.9.3.1.33) and fortran (7.9.3.2.16) descriptions
		scenario	`cpo`	see type (7.9.3.1.49) and fortran (7.9.3.2.32) descriptions
	EVENTS	pellets	`cpo`	see type [1158] and fortran [1159] descriptions
PCS	input		pcs_in	Diagnostics input signals to the plasma control system (see comple-type definition below)
	reference		pcs_ref	Reference signals for the plasma control system (see comple-type definition below)
	output		pcs_out	Output signals from plasma control system (see comple-type definition below)

[1148] https://www.efda-itm.eu/ITM/html/.html#sawtooth
[1149] https://www.efda-itm.eu/ITM/html/.html#sawtooth_Fortran
[1150] https://www.efda-itm.eu/ITM/html/.html#coreneutral
[1151] https://www.efda-itm.eu/ITM/html/.html#coreneutral_Fortran
[1152] https://www.efda-itm.eu/ITM/html/.html#corefast
[1153] https://www.efda-itm.eu/ITM/html/.html#corefast_Fortran
[1154] https://www.efda-itm.eu/ITM/html/.html#compositionc
[1155] https://www.efda-itm.eu/ITM/html/.html#compositionc_Fortran
[1156] https://www.efda-itm.eu/ITM/html/.html#wall
[1157] https://www.efda-itm.eu/ITM/html/.html#wall_Fortran
[1158] https://www.efda-itm.eu/ITM/html/.html#pellets
[1159] https://www.efda-itm.eu/ITM/html/.html#pellets_Fortran

The complex-types used in the PCS.

Field names	Type	Description
pcs_in (under development)		**Diagnostics for plasma control**
pcs.inputs.plasma_variables	type_plasma_ variables	Plasma variables
pcs.inputs.plant_variables	type_plant_ variables	Plant variables
pcs_ref (under development)		**Reference signals for plasma control**
pcs.reference.plant_variables	type_plant _variables	Plant variables
pcs.reference.plant_configuration	type_plant _configuration	Plant configuration
pcs_out (under development)		**Output signal for plasma control**
pcs.output.plasma_variables	type_plasma _variables	Plasma variables
pcs.output.plant_variables	type_plant _variables	Plant variables. NOTE: only for artificial control.
type_plasma_variables (under development)		**Plasma properties relevant for plasma control**
plasma.shape.ZIP	float	Z_centre*Ip (used for vertical control; definition of Z_centre can vary) [Am]
plasma.shape.gaps(:)	float	Distance between the plasma and the wall components [m]
plasma.magnetics.b_toroidal	real	Toroidal magnetic field at the magnetic axis [T]
plasma.magnetics.Ip	real	Current (A) CPO element: equilibrium().global_param.current_tot
plasma.magnetics.v_loop	real	Loop voltage (V) CPO element: coreprof().profiles1d.vloop.value
plasma.confinement.ne_line_integrated	real	Line integrated electron density (m^{-2})
plasma.confinement.beta_toroidal	real	Toroidal beta CPO element: equilibrium().global_param.beta_tor
plant_variables (under development)		**Plant variabels**
pf_system...	-	-
plant_variables.fuelling.pellet.trigger	integer	TRUE if pellet is being launched, othervise FALSE
plant_variables.fuelling.gas.puff_rate	real	Gas puffing rate (1/s)
plant_variables.hcd.nbi.power	real	NBI power (W) CPO element: nbi().nbi_unit().pow_unit.value
plant_variables.hcd.nbi.injection_angle	real	NBI launching angle (rad) CPO element: nbi().nbi_unit().pow_unit.value
plant_variables.hcd.ec.power	real	EC power (W) CPO element: antennas().antenna_unit().antenna_ec.power.value
plant_variables.hcd.ec.angle	real	EC launch angle (definition depend on the machine) [rad]
plant_variables.hcd.lh.power	real	LH power (W) CPO element: antennas().antenna_unit().antenna_lh.power.value
plant_variables.hcd.lh.n_parallel	real	Parallel refractive index [1]
plant_variables.hcd.ic.power	real	IC power (W) CPO element: antennas().antenna_unit().antenna_ic.power.value
plant_variables.hcd.ic.frequency	real	RF wave frequency (Hz) CPO element: antennas().antenna_unit().antenna_ic.freq

last update: 2019-01-31 by g2dpc

13 HowTo's

This section is intended to host useful material on how to solve everyday problems when dealing with ITM tools both as a developer and as a user. The material is presented in an instructive way via tutorials, HowTo's, and user guides.

13.1 How to adapt your code to ITM platform (Quick Start).

This is a fast manual on the steps needed to adapt the stand alone version of a code to be used as an actor inside a KEPLER workflow .
Please do not get discouraged but rather contact denis.kalupin@efda.org for help.

13.2 How to contribute to the ITM documentation websites.

Your contribution to the ITM documentation websites is very welcome.

To be able to contribute to the ITM websites you must be a member of the documentation project

```
doc_test
```

under Gforge (29) on the ITM Gateway (29) (see How to become a member of a Gforge project (13.8)).

After having joined the project please check out a working copy of the repository:

```
svn co https://gforge6.eufus.eu/svn/doc_test/trunk target_dir
```

where target_dir is a directory name of your choice (it will be created by svn in your current directory)

The trunk/ of the repository has the following structure which reflects the project structure of the ITM:

```
- world
- itm
- isip
- amns
- edrg
- imp12
- imp3
- imp4
- imp5
```

Material in `world` will be visible on the web server to the whole world while access to the material in all other projects is limited to ITM members via login.

Each project has two subdirectories

```
- private
- public
```

Material placed into **private** will only be visible to members of the same project whereas material in **public** is visible to the entire ITM-TF.
Inside `public` you find the following structure:

```
- graphics
- html
- imports
```

```
- pdf
- xml
```

The `graphics` directory is intended to host all graphics files whereas the `imports` directory shall host all other file types except for the xml and html files used for the generation of the ITM web pages. Those shall be placed into the `xml` and `html` directories. The `pdf` directory is used for processing only. Please do not place any files there.
Currently you are not allowed to created any subdirectories under the `graphics` directory and files there have to follow a naming convention. You may, however, create any structure of subdirectories under the `imports` directory and files there may have any name.

To contribute material to the ITM web pages you have two options:

```
- XML
- HTML
```

The recommended way of contributing is in the form of XML documents following the DocBook format. The ITM-TF currently uses a publishing tool created by John Storrs which allows the automatic conversion of DocBook like XML documents into HTML. This method has various advantages among which the most pronounced are that the contributor will not have to worry about the style and the overall structure of the web pages but rather contribute his/her material in the form of simple DocBook elements. The publication tools will then convert the existing material into a hierarchical and searchable structure of web pages with a single layout.
The current publishing tool PracticalXML allows only a small subset of the large variety of DocBook elements. For information about Docbook, including online books, visit the 'official home page' [1160]. For the full DocBook tagset, see DocBook: The Definitive Guide [1161]. Some extensions based on HTML have been added for highlighting and structuring of the web pages. If there is need for extensions, they may be implemented by extending PracticalXML. Please contact John Storrs or Christian Konz if you are missing fundamental functionalities.

A short introduction to using PracticalXML can be found following the How to write documents for Practical XML (13.3) link.

Alternatively or in addition you may place directly designed HTML pages in the html directory of your project. This allows you to use the full scope of HTML elements and your own style sheet (though not recommended) but has the drawback that your pages will not be searchable nor included in the overall structure.

Writing your web pages in XML will allow them to be included in the automatic creation of hierarchical book-like pdf's of the web pages.

Therefore, please give DocBook XML a try. It is easy to learn and to use.

To avoid name clashes, you will have to adopt the following **convention on file names in the `graphics` directory and Id's** :

All names of the files in the graphics/ and html/ directories **must** start with the name of the project plus an underscore, for instance "imp12_graphic.png" instead of "image.png". Furthermore, the Id names of the xml files which you find in the 'section class' element must likewise start with the name of the project plus underscore, for instance `<section class="topic" id="itm_practicalxml">` .

This will make sure that your documents will not be overwritten by documents with identical names.

All **links to files** must be **relative** .
There are two types of links to files:

[1160] http://www.docbook.org
[1161] http://www.docbook.org/tdg/en/html/docbook.html

- links to **xml files** in `<include file= ... >` tags: These must be relative to the `itm/public/xml` directory, e.g. `<include file="../../../itm/public/xml/itm_howtos.xml">`.
- links to **files in** `imports/` in `<ulink url=... >` tags: These must be relative to the `html` directory of the web server, e.g. `<ulink url="../imports/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt">`

Automatic PDF Generation:
For web pages developed in XML, you have the option to automatically generate a pdf version of your web page. The tools of PracticalXML will convert the specified xml document into pdf and also decend into depending xml documents. The result is an article like document with table of contents and hyperlinks.
To tell the system to automatically generate a pdf version of a web page you need to include the `pdf attribute` in the top section of your xml document.

Example:

```
<section class="topic" id="itm_howtos" pdf="itm_howtos">
```

The value of the pdf tag has to be identical to the value of the id tag and the name of the xml file, in the example above: itm_howtos.xml.

The system will then automatically generate a pdf version of the web page and place it into the `pdf/` directory, in the example as `itm_howtos.pdf`. It will also generate the pdf link symbol ⇒ **pdf** at the top of the page which links directly to the pdf document.

Automatic Update Information:
Using the **svn keyword Id** it is possible to generate an automatic update information for each xml document. For this, you have to add the following line

```
<timestamp>version: $Id: itm_howtos.xml 2153 2019-01-31 09:23:43Z g2dpc $</timestamp>
```

at the bottom of your xml document just before closing the last section tag. Furthermore, you have to set **svn:keywords** to **Id**. This can be done with

```
svn ps svn:keywords Id example.xml
```

assuming your xml is stored in "example.xml". With each commit, svn will automatically add the commit information between the two '$' which will be processed into the required update information by the system.

Once you have committed your changes, a (soon) automatic make process will update the ITM web pages with your changes and place them on the web server. It will also automatically generate pdf's of all web pages. A link to the pdf is shown at the top of the web pages. The date and author of the last updates is shown at the bottom of the pages.

13.2.1 PracticalXML Testbed

To allow for an easy and decoupled development of the XML web pages of each project (which will later be linked to the entire website by a cron job) we have developed a test bed environment. Please use this environment to generate your web pages before committing an XML file to the trunk/ directory.

The idea here is that you can generate the corresponding html version independently of the rest of the web pages. This allows you to debug and polish your XML files before committing them to the trunk.

Here is what you need to do for that:

1.) First check out a working copy of the test bed `doc_test/branches`:

```
svn checkout https://gforge6.eufus.eu/svn/doc_test/branches target_dir
```

This will create a local copy of the software `publishxml` in your working copy and a binary version of `tex2im` which should run on all linux platforms.

To include `tex2im` in your path please do the following

```
setenv PATH {$PATH}:path_to_target_dir/tex2im-1.8
```

or equivalent (depending on the shell) where `path_to_target_dir` is the path to your working copy.

2.) Inside the test bed check out a working copy of your project's web pages (here for ISIP as an example):

```
svn checkout https://gforge6.eufus.eu/svn/doc_test/trunk/isip isip
```

This will strongly reduce the size of your working copy and allow you to edit you project's web pages without worrying about the rest of the website.
If you require access to the rest of the website consider checking out additional working copies of separate projects just like your own.

3.) Edit your web pages inside your working copy of your project, i.e.

```
cd isip/public/xml

edit xml files

cd ../../ (i.e. inside isip/)

svn commit -m "- made some changes"  (just an example)
```

IMPORTANT: Commit your changes from within the working copy of your project (i.e. `isip`), NOT from the working copy of the test bed (i.e. `doc_branches`) - else nothing will happen.

4.) Make your web pages:

```
cd isip/public/xml

./makehtml.sh main.xml
```

This will create the corresponding html files in `isip/public/html/` and a symbolic link in `isip/public/imports/` .
If there are errors in your xml files, you will see the error messages here.
If you like to make a single web page, do

```
./makehtml.sh <filename>
```

where `<filename>` is the name of your xml document.

5.) Inspect your web pages:

```
firefox isip/public/html/index.html
```

The layout is as it will appear on the server.

Please be aware that the test bed does NOT allow you to upload material to the web server yourself. This is done automatically by a CRON job.

For inspiration on which elements are available in PracticalXML please consider the example document `test.xml` in the `xml` directory of the test bed.

Dependencies:
We assume that you have the following software installed on your system:

```
- perl
- python
- latex
- pdflatex
- convert
```

All these are needed to make the web pages.

13.3 How to write documents for Practical XML

13.3.1 Introduction

This is the ITM-TF version of a public domain xml processing package written by **John Storrs** . It aims to promote the wider use of xml for information capture and documentation. The ITM-TF has adopted this package for the publication of its websites. The package contains an xml parser, documentation generator, dtd generator, xml validator, with sample applications and associated xml documents. The applications include a simple tutorial which shows how easy it is to build and process an in-memory tree representing an xml document.

xml is a curate's egg of a standard, and the Practical XML project currently only handles the good bits. It focuses on the definition of hierarchical data structures using element and attribute markup. It handles the insertion of standard entities, but not user-defined entity definitions. Though it only covers a subset of the xml standard, the Practical XML package is useful in a wide range of applications.

The project software is written in Perl, an ideal language for text processing. The parser and system tools make extensive use of Perl regular expressions and other useful features of the language.

The package files are organised in 2 subdirectories: *lib* , containing the parser libraries, *app* containing system and demo applications.

13.3.2 Use

To use the **Practical XML parser** or applications on the ITM Gateway (29) you need to set an environment variable `PXML_HOME` to point to `${SWITMDIR}/pracxml/app/publishxml` . You also need to add `konz/public/tex2im-1.8` to your path, for `tex2im` . Perl 5.8 or later is required. The pdf generator uses Latex as its output engine, so one of the current Tex/Latex packages is needed. The ImageMagick convert-6.0.0 or higher is needed for graphics conversion, and the graphviz package is used in a DocBook extension. The software tool requirements should be satisfied by any recent Linux distribution. Once you are set up you should be able to process Practical XML documents by running make in the `itm/public/xml` subdirectory. The results are placed in the html and pdf subdirectories.

Alternatively, you may set up your own personal testbed for PracticalXML (see PracticalXML Testbed (13.2.1)). This allows you to develop and process xml based web pages and pdf documents on most Linux and Unix system. For more information see How to contribute to the ITM documentation websites (13.2).

13.3.3 Parser

The xml parser is in two perl modules: `lib/LME/Xmlparser.pm` and `lib/LME/XmlNode.pm` . It is an incremental parser, allowing memory-efficient processing of large xml files.

13.3.4 Applications

The `app` subdirectory contains system tools `publishxml` , `generatedtd` and `validatedtd` , some demo applications process*, and a coding tutorial. Example xml documents processed by the demo applications are in the `doc` subdirectory.

13.3.4.1 publishxml

This is a documentation generator for a core subset of DocBook, with some useful extensions. It currently generates html and pdf output. It has a clean, **extensible** design, and is much faster than some other open source Docbook tools.

13.3.4.2 generatedtd

This generates a dtd from a collection of xml documents expressing a single schema.

13.3.4.3 validatexml

This validates an xml document against a dtd.

13.3.4.4 processtopics

`processjournal` , `processtasks` and `processrecords` are topic-based applications illustrating the transformation of a user-defined xml vocabulary to DocBook. A topic tree is defined using a simple xml vocabulary. This can be processed by processtopics to generate topic tree documentation. Other documents can structure their contents implicitly by reference to this tree.

13.3.4.5 processjournal

This processes a topic-based journal written in a simple vocabulary with embedded DocBook.

13.3.4.6 processrecords

This processes a topic-based structured document written in a simple vocabulary with embedded DocBook. PDF output is generated recursively for all levels in the topic hierarchy, making it easy to view any sub-tree of the document

13.3.4.7 processtasks

This processes a topic-based project task description, generating project management documentation.

13.3.4.8 tutorial1

This shows how easy it is to build and process an in-memory tree representation of an xml file. Try it with your own application-specific vocabulary.

13.3.5 DocBook

This document is an example of a Docbook *article* , which uses *sections* to structure its contents. Alternatively, the top level element could be a *book* . Books contain chapters, which in turn contain sections as shown here. You can organise document content in multiple files, using the *include* tag extension.

For information about Docbook, including online books, visit the 'official home page' [1162]. For the full DocBook tagset, see DocBook: The Definitive Guide [1163]. As you can see, DocBook is very big, with many specialised tags. PracticalXML covers only the commonly used features.

13.3.5.1 Sections

```
<section id="sectionId">
  <title>Section Title</title>
  <!-- section content comes here -->
</section>
```

[1162] http://www.docbook.org
[1163] http://www.docbook.org/tdg/en/html/docbook.html

Note the xml comment tags. The section *id* attribute is optional. You can use it on any tag to provide a target for an internal link. Id attributes must be unique in a document. See Links (13.3.5.6) below.

You can nest sections. There are tags to support nesting (*sect1* , *sect2* , *sect3* , etc), but they offer no advantage over plain *section* .

There are two special **classes** of the <section> element which have to be used as the outermost element when defining a new XML file.

1. **class="topic"** : This section class defines a new html page. It also creates a section in the pdf version. Therefore, please complete it with a <title> element.

2. **class="import"** : This section class defines a mere import of the enclosed xml without the creation of a new html page. This is especially useful when the XML material shall be used in various locations of the website. No explicit section is created in the pdf version. A title element is therefore not required.

13.3.5.2 Paragraphs

```
<para>Paragraph 1 content.</para>
<para>Paragraph 2 content.</para>
```

Paragraph 1 content.

Paragraph 2 content.

13.3.5.3 Lists

Itemized (bullet) list:

```
<itemizedlist>
  <listitem>First item content.</listitem>
  <listitem>Second item content.</listitem>
</itemizedlist>
```

- First item content.
- Second item content.

Ordered (numbered) list:

```
<orderedlist>
  <listitem>First item content.</listitem>
  <listitem>Second item content.</listitem>
</orderedlist>
```

1. First item content.
2. Second item content.

Lists can be nested.

13.3.5.4 Tables

Table with title:

```
<table frame="sides">
  <title>Table Title</title>
  <tgroup cols="2">
    <colspec colwidth="30mm"/>
    <colspec colwidth="30mm"/>
```

```
    <thead>
      <row>
        <entry>column1 title</entry>
        <entry>column2 title</entry>
      </row>
    </thead>
    <tbody>
      <row>
        <entry>row1 column1 content</entry>
        <entry>row1 column2 content</entry>
      </row>
      <row>
        <entry>row2 column1 content</entry>
        <entry>row2 column2 content</entry>
      </row>
    </tbody>
  </tgroup>
</table>
```

Table 4790: Table Title

column1 title	**column2 title**
row1 column1 content	row1 column2 content
row2 column1 content	row2 column2 content

The table above was generated without the top and bottom lines using the `frame` attribute (here set to "sides"). The allowed values for this attribute are `all`, `bottom`, `none`, `sides`, `top` and `topbot` following the DocBook definitions.

Complex table with multicolumn and multirow spans:

```
<informaltable frame="all">
  <tgroup cols="4">
    <colspec colnum="1" colname="c1" colwidth="30mm"/>
    <colspec colnum="2" colname="c2" colwidth="30mm"/>
    <colspec colnum="3" colname="c3" colwidth="30mm"/>
    <colspec colnum="4" colname="c4" colwidth="30mm"/>
    <thead>
      <row>
        <entry morerows="1">header multirow1</entry>
        <entry morerows="1">header multirow2</entry>
        <entry namest="c3" nameend="c4">header multicolumn</entry>
      </row>
      <row>
         <entry colname="c3">subcolumn1</entry>
         <entry colname="c4">subcolumn2</entry>
      </row>
    </thead>
    <tbody>
      <row>
         <entry morerows="2">body multirows</entry>
         <entry>body column2</entry>
         <entry morerows="1">body multirows</entry>
         <entry>body column4</entry>
      </row>
      <row>
         <entry>body column2</entry>
         <entry>body column4</entry>
      </row>
      <row>
```

```
        <entry namest="c2" nameend="c4">body multicolumn</entry>
      </row>
    </tbody>
  </tgroup>
</informaltable>
```

<table>
<thead>
<tr><th rowspan="2">header multirow1</th><th rowspan="2">header multirow2</th><th colspan="2">header multicolumn</th></tr>
<tr><th>subcolumn1</th><th>subcolumn2</th></tr>
</thead>
<tbody>
<tr><td rowspan="3">body multirows</td><td>body column2</td><td rowspan="2">body multirows</td><td>body column4</td></tr>
<tr><td>body column2</td><td>body column4</td></tr>
<tr><td colspan="3">body multicolumn</td></tr>
</tbody>
</table>

For a table without a title, use *informaltable* which is otherwise the same. Specify column widths in mm. For more information on tables in DocBook please consult DocBook XSL: The Complete Guide [1164].

Table with rows with alternating colours but without lines:

```
<table alternating="yes" rules="none">
  <title>Alternating Table</title>
  <tgroup cols="2">
    <colspec colwidth="60mm"/>
    <colspec colwidth="60mm"/>
    <thead>
      <row>
        <entry>column1 title</entry>
        <entry>column2 title</entry>
      </row>
    </thead>
    <tbody>
      <row>
        <entry>row1 column1 content</entry>
        <entry>row1 column2 content</entry>
      </row>
      <row>
        <entry>row2 column1 content</entry>
        <entry>row2 column2 content</entry>
      </row>
      <row>
        <entry>row3 column1 content</entry>
        <entry>row3 column2 content</entry>
      </row>
      <row>
        <entry>row4 column1 content</entry>
        <entry>row4 column2 content</entry>
      </row>
      <row>
        <entry>row5 column1 content</entry>
        <entry>row5 column2 content</entry>
      </row>
      <row>
        <entry>row6 column1 content</entry>
        <entry>row6 column2 content</entry>
      </row>
    </tbody>
  </tgroup>
</table>
```

[1164] http://www.sagehill.net/docbookxsl/

Table 4792: Alternating Table

column1 title	column2 title
row1 column1 content	row1 column2 content
row2 column1 content	row2 column2 content
row3 column1 content	row3 column2 content
row4 column1 content	row4 column2 content
row5 column1 content	row5 column2 content
row6 column1 content	row6 column2 content

For a table without internal lines set the `rules` attribute to "none". If not set, the attribute defaults to "all" which draws all internal lines. **Do not use `rules="none"` together with multicolumns or multirows!** To build a table with alternating row colours set the attribute `alternating` to "yes". Leaving out this attribute or setting it to any other value will produce a table without row colours.

13.3.5.5 Graphics

```
<graphic fileref="../graphics/itm_viewlog1.png" width="70%"/>
```

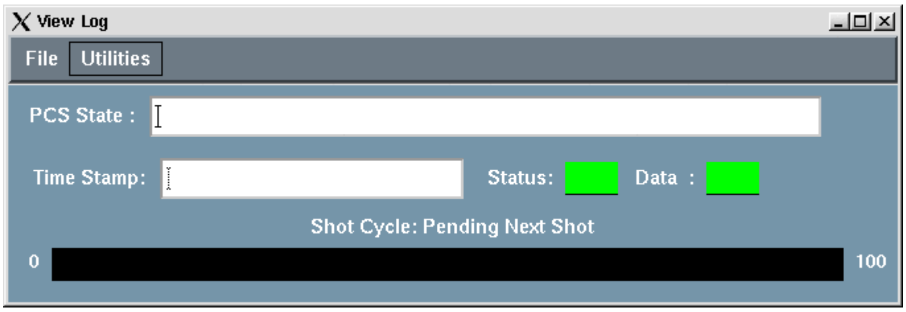


Image size is controlled by specifying the width relative to the page width in percent.

Links are always relative to the file location!

13.3.5.6 Links

Link to document on the Web:

```
For the full DocBook tagset, see
<ulink url="http://www.docbook.org/tdg/en/html/docbook.html">
DocBook: The Definitive Guide</ulink>.
```

For the full DocBook tagset, see DocBook: The Definitive Guide [1165].

Link to an email address:

```
Author:
<ulink url="mailto:john.storrs@ukaea.org.uk">John Storrs</ulink>.
```

Author: john.storrs@ukaea.org.uk.

Link to another document on the local server:

```
Here is the <ulink url="../imports/style.css">style sheet</ulink> for this document.
```

Here is the style sheet [1166] for this document.

Links are always relative to the file location!

[1165] http://www.docbook.org/tdg/en/html/docbook.html
[1166] https://www.efda-itm.eu/ITM/imports/itm/public/style.css

13.3.5.6.1 Links within the ITM website

The automatic html/pdf generator engine allows for a sophisticated system of links within the ITM website.

Targets for links within the ITM website may be any <**section**> , <**para**> , or <**anchor**> tags which have an **"id" attribute** .

Examples:

```
<section id="target1">
<para id="target2">
<anchor id="target3"/>
```

The <anchor> tag is a "silent" target which has no content of its own and only serves as a target for links.

Some special rules apply:
Every standalone xml document must start with a <**section class="topic" id="..."**> or a <**section class="import" id="..."**> tag. These tags have to have the **"id" attribute** . The **"class" attribute** must come first. Only double quotes are allowed.

Do NOT put <section>, <para>, or <anchor> on the same line.

A link is then created by using the <**link**> tag with the **"linkend" attribute** to specify the target (see example below).

```
This links to the <link linkend="sectionId">Sections</link> section above.
```

This links to the Sections (13.3.5.1) section above. The id attributes must be unique in a document.

The Perl/Python engine will generate the appropriate links in the html and pdf versions of the website. If a link target lies outside a pdf document (for instance because only a part of the website was converted into pdf), the engine automatically creates an external link to the correct web address on the ITM server. By this, even for the pdf of a part of the website all links are fully functional.
The web addresses of external links appear in full as footnotes in the pdf.

13.3.5.7 Verbatim

```
<screen>
This is verbatim layout
   It is typeset in a fixed-width font.
      Spacing is preserved.
</screen>
```

results in

```
This is verbatim layout
   It is typeset in a fixed-width font.
      Spacing is preserved.
```

If the verbatim content includes the special xml characters '<' or '>' (eg xml text or program code), they must be replaced by '<' and '>'. Please be careful when using the verbatim environment inside other environments, i.e. elements. Do not use <screen> elements inside <box> elements!

13.3.5.8 Text Formatting

The text formatting elements typewriter text and emphasis are included in DocBook.

```
<mono>This is typewriter text.</mono>
```

results in

`This is typewriter text.`

```
<emphasis>This is emphasized text.</emphasis>
```

results in

This is emphasized text.

13.3.6 DocBook Extensions

DocBook extensions provided in Practical XML include:

13.3.6.1 File Inclusion

Simple xml file inclusion is achieved like this:

```
<include file="introduction.xml"/>
<include file="developmenttools.xml"/>
<include file="hardware.xml"/>
<include file="firmware.xml"/>
<include file="software.xml"/>
<include file="hardwaretesting.xml"/>
<include file="softwareupdates.xml"/>
```

The included xml file must have a <section> element with a **class attribute** as its root element. There are two special **classes** of the <section> element.

1. **class="topic"** : This section class defines a new html page. It also creates a section in the pdf version. Therefore, please complete it with a <title> element.
2. **class="import"** : This section class defines a mere import of the enclosed xml without the creation of a new html page. This is especially useful when the XML material shall be used in various locations of the website. No explicit section is created in the pdf version. A title element is therefore not required.

Important:
Do NOT create circular inclusions!

13.3.6.2 Maths

Latex maths can be embedded in DocBook documents in a math element. Here are some examples:

```
<math>\[ 2\sum_{i=1}^n a_i \int^b_a f_i(x)g_i(x)\,\mathrm{d}x \]</math>
```

produces this:

$$2\sum_{i=1}^n a_i \int^b_a f_i(x)g_i(x)\,\mathrm{d}x$$

and this:

```
<math>$$ 2\sum_{i=1}^n a_i \int^b_a f_i(x)g_i(x)\,\mathrm{d}x $$</math>
```

produces this:

$$2\sum_{i=1}^n a_i \int_a^b f_i(x)g_i(x)\,\mathrm{d}x$$

To get a better alignment for inline maths, use the <inmath> element.

```
<inmath>\[ 2\sum_{i=1}^n a_i \int^b_a f_i(x)g_i(x)\,\mathrm{d}x \]</inmath>
```

produces this:

$$2\sum_{i=1}^n a_i \int_a^b f_i(x)g_i(x)\,\mathrm{d}x$$

Here are some more inline maths: x^{2n-1} and $\sqrt[3]{8}$.

13.3.6.3 Text Formatting

The standard set of text formatting elements, like bold face, italic, and underline have been added to the DocBook scope.

```
<bold>This is bold face.</bold>
```

results in

This is bold face.

```
<italic>This is italic.</italic>
```

results in

This is italic.

```
<underline>This is underlined text.</underline>
```

results in

This is underlined text.

13.3.6.4 Text Colors

A total of 10 text colors have been added to the DocBook definitions. The <color> tag carries the attribute `name` which allows specification of the text color by name (see table below).

Table 4793: Text Colors

source	result
<color name="black">text color is black</color>	text color is black
<color name="red">text color is red</color>	text color is red
<color name="gray">text color is gray</color>	text color is gray
<color name="blue">text color is blue</color>	text color is blue
<color name="pink">text color is pink</color>	text color is pink
<color name="cyan">text color is cyan</color>	text color is cyan

Table 4793: Text Colors

source	result
<color name="green">text color is green</color>	text color is green
<color name="gold">text color is gold</color>	text color is gold
<color name="sienna">text color is sienna</color>	text color is sienna
<color name="orange">text color is orange</color>	text color is orange
<color name="goldenrod">text color is goldenrod </color>	text color is goldenrod
<color name="lightgreen">text color is lightgreen </color>	text color is lightgreen
<color name="purple">text color is purple </color>	text color is purple

13.3.6.5 Boxes

```
<box>
This environment frames the included text with a box. It is a mandatory
alternative to <screen> if a <math> element is included.
</box>
```

This environment frames the included text with a box. It is a mandatory alternative to <screen> if a <math> element is included. Do not use a <screen> element inside a box environment! Rather stack <box> elements.

13.3.6.6 Lines

```
<hrule/>
```

produces a horizontal line

13.3.6.7 Special Characters

Special characters like **diacritics** have been added to the DocBook scope. If you like to use diacritics in xml, please use the html entities, i.e. é for é.
For a complete list of diacritics please see HTML:Special Characters [1167]. Only the diacritics have been included so far.

13.3.6.8 Blanks

Neither XML nor HTML maintain blanks inside a document but rather condense all whitespaces into single blanks. If you like to deliberately add blanks to your document (html and pdf), you will have to use either the <screen> environment or the <**spaces number="..."/**> tag. Its **"numer" attribute** specifies the number of blanks you would like to insert.

Example:

```
no spaces<newline/>
<spaces/>1 space<newline/>
<spaces number="1"/>1 space<newline/>
<spaces number="2"/>2 spaces<newline/>
<spaces number="3"/>3 spaces<newline/>
<spaces number="4"/>4 spaces<newline/>
<spaces number="5"/>5 spaces<newline/>
<spaces number="10"/>10 spaces<newline/>
```

[1167] http://www.utexas.edu/learn/html/spchar.html produces the following:

no spaces
 1 space
 1 space
  2 spaces
   3 spaces
    4 spaces
     5 spaces
          10 spaces

---

last update: 2013-03-04 by dpc

13.4 How to categorize imported documents.

Documents which are placed in the `imports/` directories and added via a <ulink> element can be categorized using a variety of attributes for the <ulink> tag.
Categorized documents will appear ordered by category in the ITM Document Catalog (26) and are therefore much easier to identify and to find than uncategorized documents. The categorization has to be done by hand but is worth the extra bit of effort.

Attributes for the categorization:
Besides the standard attribute `$url` , there are 10 optional attributes for the <ulink> tag which are described in the following. All 10 attributes have to present for the corresponding document to be categorized. Documents which have been categorized at one location in the XML tree of the ITM website do not need to be categorized again when linked to the website at a different location.

- *title* - The actual title of the document. May be different from the working title inside the <ulink> tag.
- *type* - The classification type of the document. Current classification types are:
  - administrative
  - documentation
  - movie
  - poster
  - presentation
  - report
  - technical
  - tutorial

  Missing classification types may be added with the consent of the publication team.
- *project* - This is the ITM project's name under which the document was **created** . This attribute is intended to show which project is responsible for a potential maintenance of the document. Allowed values are:
  - edrg
  - amns
  - isip
  - imp12
  - imp3
  - imp4
  - imp5
  - ism
  - tfl
- *author* - The last name(s) of the main author.
- *year* - The year when the document was last modified in the format YYYY.

- *month* - The month when the document was last modified in the format MM.
- *topic* - The general physics/numerics/math topic under which the document might be placed. Currently, the following topics are available:
  - control
  - ecrh
  - equilibrium
  - fast particles
  - general
  - grid
  - heating
  - icrh
  - infrastructure
  - legal
  - machine descriptions
  - mhd
  - monitoring
  - nbi
  - numerics
  - transport
  - turbulence
  - workflows

  Since this list is not exhaustive, you are welcome to add new topics as you wish. However, please keep in mind that a too granular categorization is of little use.
- *complexity* - Please carefully assess the complexity of the document for categorization. The complexity levels are:
  - introductory
  - standard
  - expert
- *addressee* - Whom is the document mainly targeted at? Addressees are:
  - user
  - developer
  - public
- *size* - Number of pages of the document if applicable (else 0).

The order of the attributes is free. All values have to be enclosed in double quotes ("). Avoid leading or trailing spaces.

An example for a categorized import (here edrg) is shown below:

```
<ulink url="../imports/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt"
title="Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting"
type="presentation" project="edrg" author="Coelho" year="2009" month="01"
topic="control" complexity="standard" addressee="public" size="15">
Overview of EDRG for 2009 (R.Coelho)</ulink>
```

13.5 How to work with Subversion under Gforge

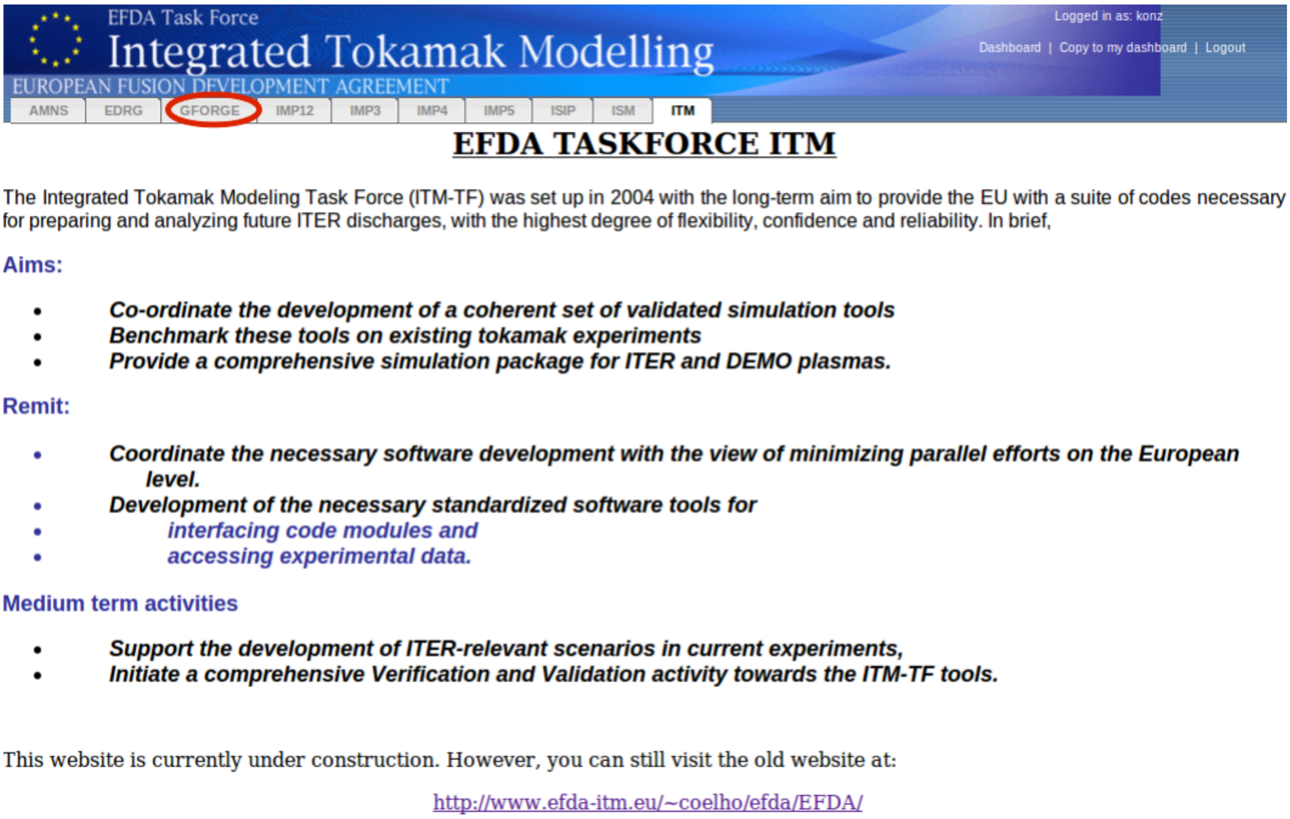
13.5.1 Introduction

The ITM-TF uses the Gforge system (29) as its Collaborative Development Environment (CDE) (29) .
The system features a variety of tools like trackers, bug reports, newsfeeds, a content management system (CMS) (29) , Wikis, Forums, and documentation systems to facilitate the development of projects. Above all it hosts the repositories of the projects under development and features various version control systems.
The ITM-TF has opted for Subversion as its tool for version control. The following material is supposed to serve as an introduction to the use of subversion under Gforge.

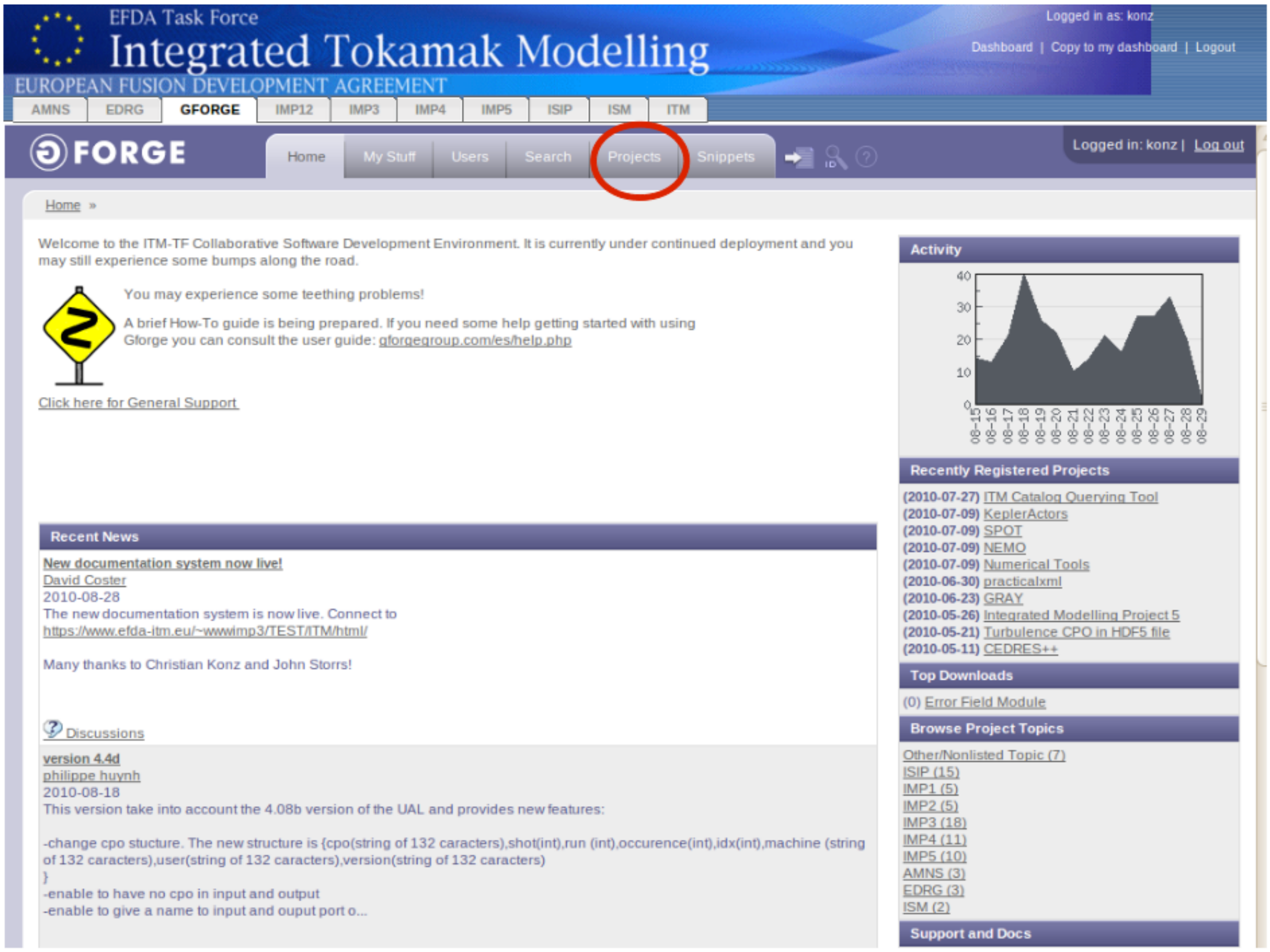
13.5.2 Projects in Gforge

Subversion repositories are projects in Gforge.

After logging in to the ITM Portal (29) you should be seeing the ITM-TF front page.



Click on the register called *Gforge* on the top of the page (marked by a red circle) to access Gforge.



You are then taken to the front page of Gforge which shows recent news, a list of recently registered projects, and a diagram of the recent commit activity of all ITM projects under Gforge.

Click on the register labelled *Projects* to access the list of projects.

EFDA Task Force

Integrated Tokamak Modelling

EUROPEAN FUSION DEVELOPMENT AGREEMENT

Logged in as: konz

Dashboard | Copy to my dashboard | Logout

AMNS | EDRG | GFORGE | IMP12 | IMP3 | IMP4 | IMP5 | ISIP | ISM | ITM

FORGE

Home | My Stuff | Users | Search | Projects | Snippets

Logged in: konz | Log out

Home » Project Browse

Full name	Account name (lowercase)	Description
XMLLIB	xmllib	An F95 library for parsing XML coded code parameters.
WS2K	ws2k	Graphical tool for automatic generation of Web Services
VisIt Visualization	visit_visu	Visualization of CPO fields through a VisIt plug-in
UAL	ual	ITM UAL
Turbulence CPO in HDF5 file	trurbulence_cpo	Routines which store the content of the turbulence CPO into a HDF5 file.
TRAVIS	travis	ECRH/ECCD
Testing GForge	test2009	Project to test the GForge features
SVNSYNC_TEST	svnsync_test	Test project for synchronizing with external SVN repositories, as proposed by David Coster. The testing will be done by Vasile Pais, Trach-Minh Tran and Olivier Sauter.
SPOT	spot	Simulation of fast ion propagation using an orbit following Monte Carlo method via the guiding centre technique
skel	skel	A skeleton for developing Fortran MPI and non-MPI (serial) time dependent program.
scripts (ISIP, platform management)	scripts	Scripts of general use, provided by ISIP for the management of platform-related environment variables, Kepler actors, ...
ScicosLab43	scicoslab43	Custom version of ScicosLab GTK 4.3 with build in Code Generator for Kepler
SAWTEETH model	sawteeth	Sets of routines to describe a sawteeth model, calculating the trigger criteria and if a crash should be performed, the post-crash profiles
QWA-2	qwa2alphanum	Test of Version Control
Python Visualization	python_visu	Visualization of data coming from the UAL with Python tools (UAL interface, numpy/matplotlib, Kepler actor)
practicalxml	practicalxml	web publishing tool
Orbit-following Monte Carlo code ASCOT	ascot	ASCOT (Accelerated Simulation of Charged-particle Orbits in Tokamaks) orbit-following Monte Carlo code
Numerical Tools	numerical_tools	This project hosts all ITM-TF related numerical tools like fitting and interpolation routines, grid generation, AMR routines, etc.
NTM module	ntmmodule	Provide NTM module within IMP2 to provide time evolution of the island width and frequency using modified Rutherford equation
ntm_Deff	ntm_deff	Determine new Diffusion coefficients due to presence of NTM mode
NEOWES	neowes	Neoclassical transport module using formulae from Tokamaks, by J Wesson
NEMORB	nemorb	The global electromagnetic gyrokinetic code ORB5.
NEMO	nemo	Simulation of neutral beam injection, deposition and attenuation.

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Dashboard | Copy to my dashboard | Logout

AMNS | EDRG | GFORGE | IMP12 | IMP3 | IMP4 | IMP5 | ISIP | ISM | ITM

Kepler	kepler	Updated version of the code platform, implementation of debugging facilities
ITM_SHARED	itmshared	To capture in one place shared tools, definitions, etc. Initially, the proposed itm_types and itm_constants.
ITMPortal	itmportal	ITM Portal
itm_documentation	doc_test	This project hosts the web pages for the installation of an svn based documentation system.
ITM Catalog Querying Tool	catalog_qt	Web interface for querying the ITM simulation catalogue
ITM Catalog	itmcatalog	ITM Catalog support
ITM-10-IMP3-T4	itm10imp3t4	Verification and validation of edge codes
ITM-10-IMP3-T3	itm10imp3t3	Implementation and integration of edge codes
ITM-10-IMP3-T2	itm10imp3t2	ITER Scenario Modelling (ISM)
ITM-10-IMP3-T1	itm10imp3t1	Maintenance, continuing development, verification and validation of the ETS
ITM-09-IMP3-T7	itm-09-imp3-t7	Implementation of kinetic edge codes on the Gateway machine
ITM-09-IMP3-T6	itm-09-imp3-t6	Implementation of 3d edge code(s) on the Gateway Machine
ITM-09-IMP3-T5	itm-09-imp3-t5	Extension of edge code simulations to the (real) wall
ITM-09-IMP3-T4	itm-09-imp3-t4	Continuation of the development and implementation of edge CPOs (including core-edge coupling)
ITM-09-IMP3-T3	itm-09-imp3-t3	Continuation of edge code validation
ITM-09-IMP3-T2	itm-09-imp3-t2	Use of the modules and interfaces, comparison with existing 1D codes and experiment (validation and verification)
ITM-09-IMP3-T1	itm-09-imp3-t1	Maintenance and continuing development of the ETS
ISE	ise	Integrated Simulation Editor
Interpolation and extrapolation routine	interpos	Provide an easy, flexible and precise routine for interpolation and calculation of derivatives and integrals on a new mesh. Allows for extrapolation as well. Includes smoothing based on cubic spline with tension, minimizing second derivatives.
Integrated Modelling Project 5	imp5	The aim of the Integrated Modelling Project #5 on "Heating, Current Drive and Fast Particles" is to develop a package of codes for prediction and interpretation of heating, current drive and fast particle effects. The areas to be covered include ECRH, ICRH, NBI, LH, alpha particles and fast particle interaction with instabilities. The ultimate goal is to enable self-consistent simulation of heating and current drive in the presence of fast particle instabilities, especially for ITER.
Integrated Modelling Project 3	imp3	Parent project for IMP3.

Add new Project | Filter by category

1 2 Next >

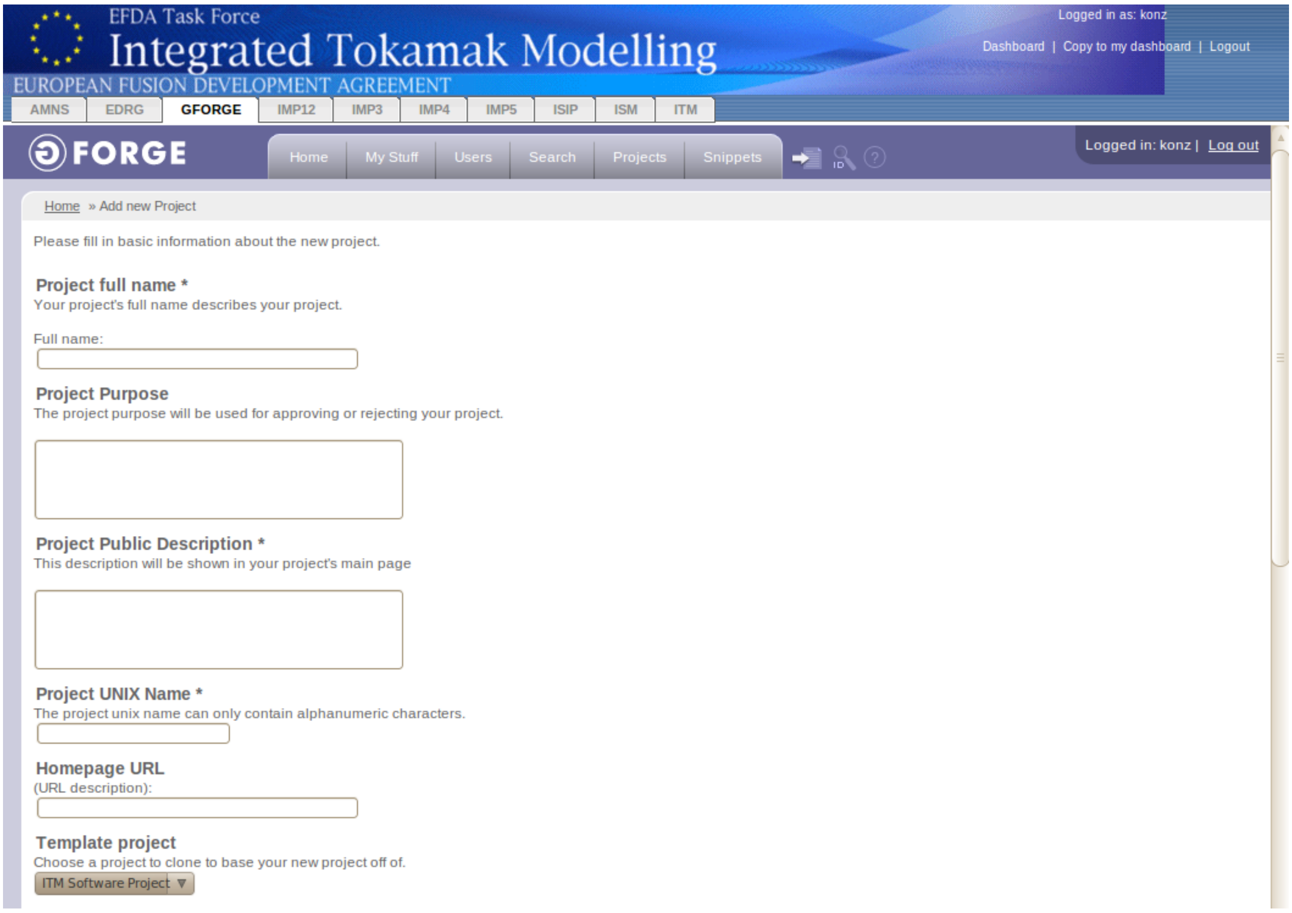
Search for projects in all categories

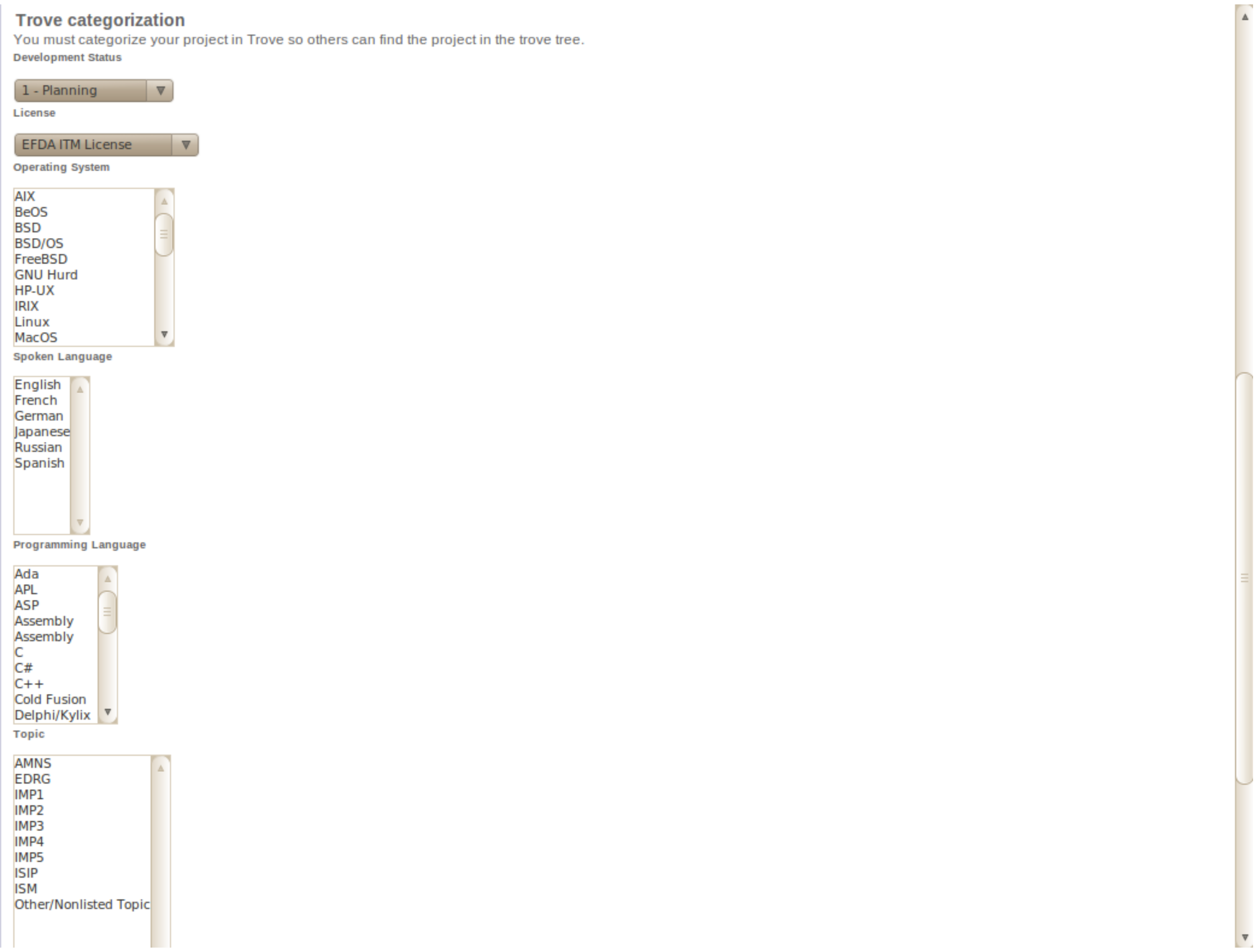
Search

Enter * to return all

To search for projects, please enter the criteria in the text box and press "Search" to get the results

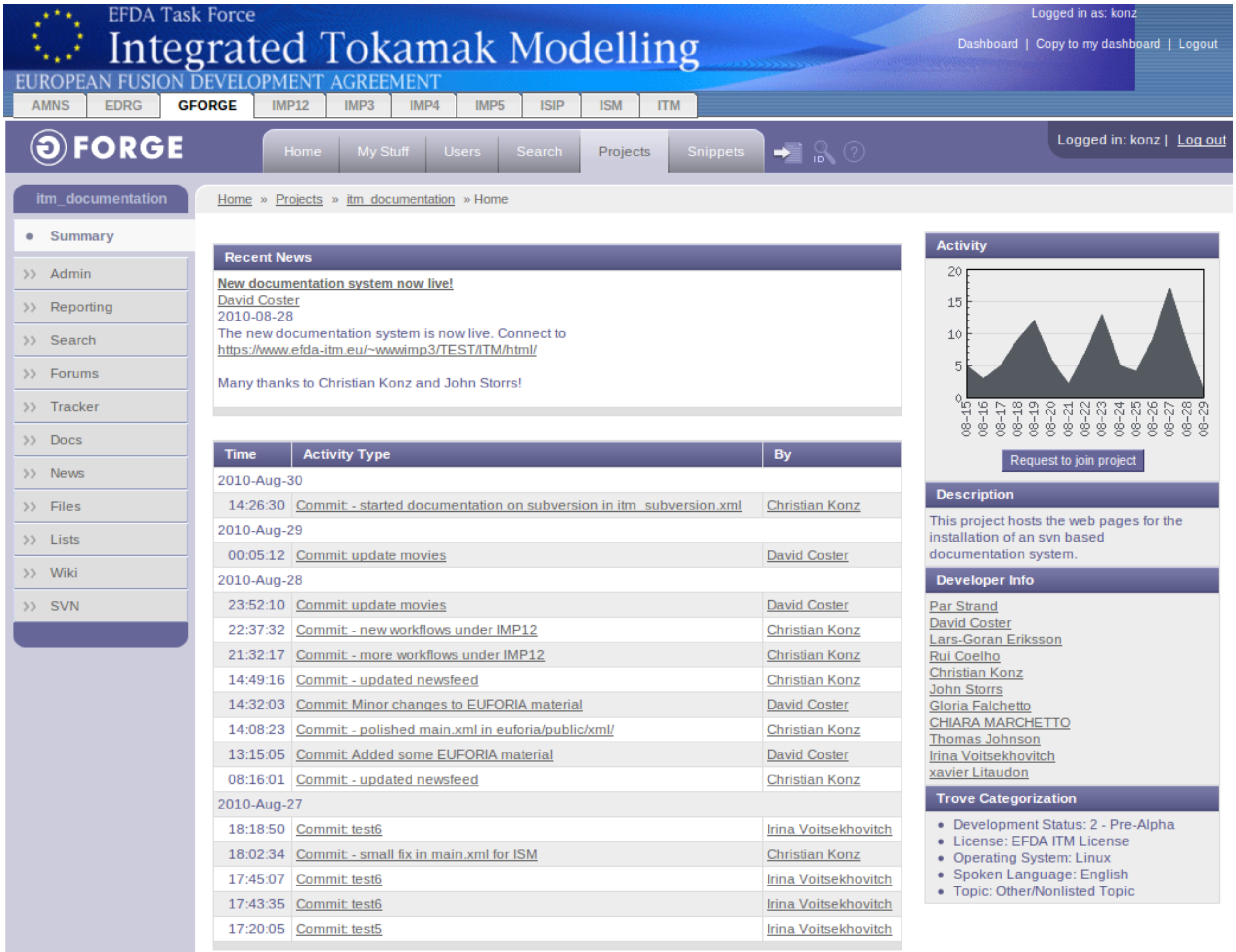
The list shows you full names, the account names, and short descriptions of all the ITM projects under Gforge. The **account names** are simultaneously the names of the corresponding repositories under subversion.
At the bottom of the page, you will find a button labelled *Add new Project* (marked by a red circle). By clicking this button you will be taken to the registration page for new projects under Gforge. If you like to start a new project by creating a fresh repository, this is what you have to do.



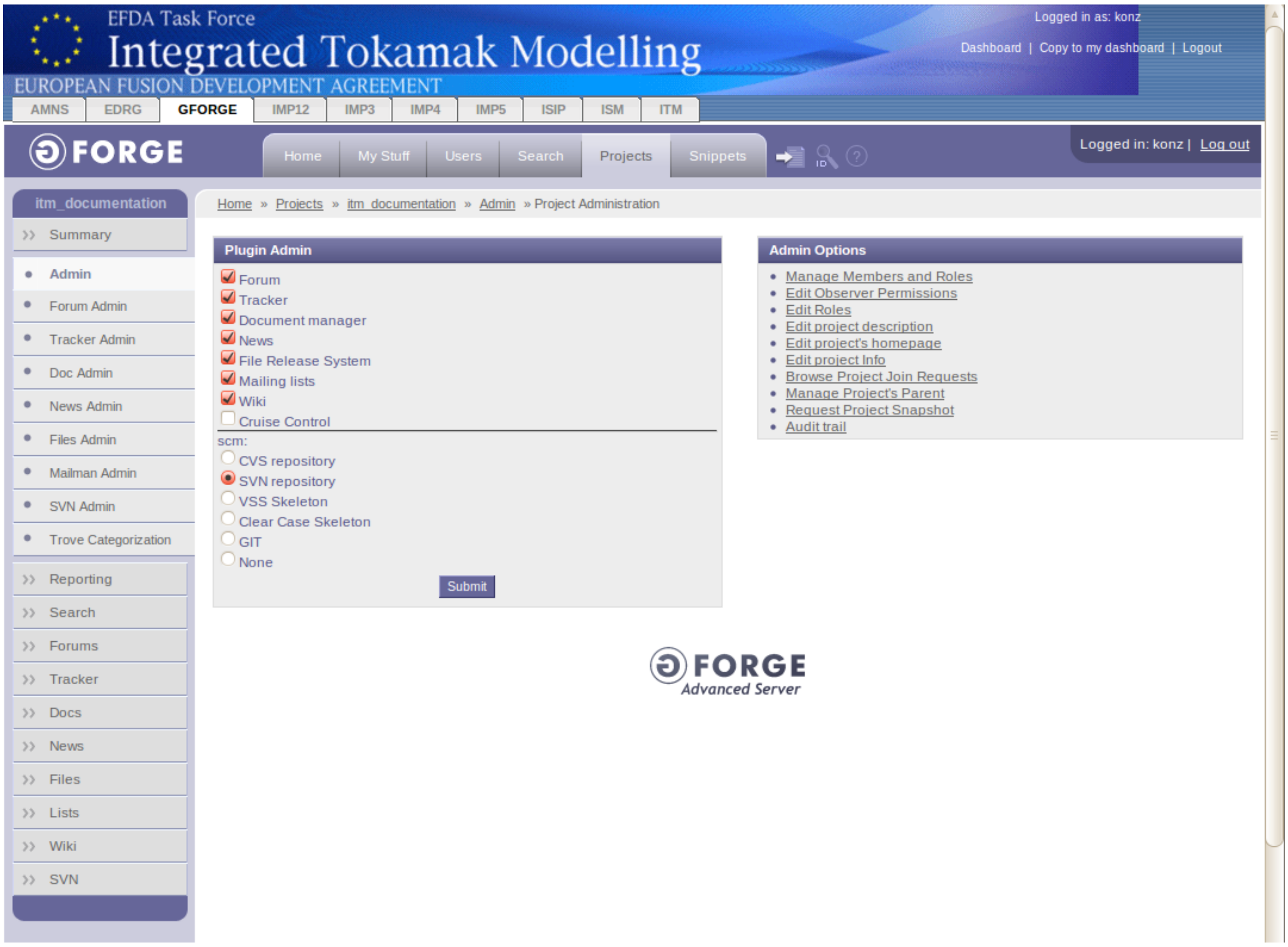


On the registration page, you are asked to specify a variety of details about the project including a short description of the project and the trove categorization. The critical field is the one labelled *Project UNIX Name* which determines the name of the subversion repository.
Once you filled all the fields and selected an appropriate categorization, you should hit the *submit* button to create your project. Please ensure that you do not duplicate already existing projects.

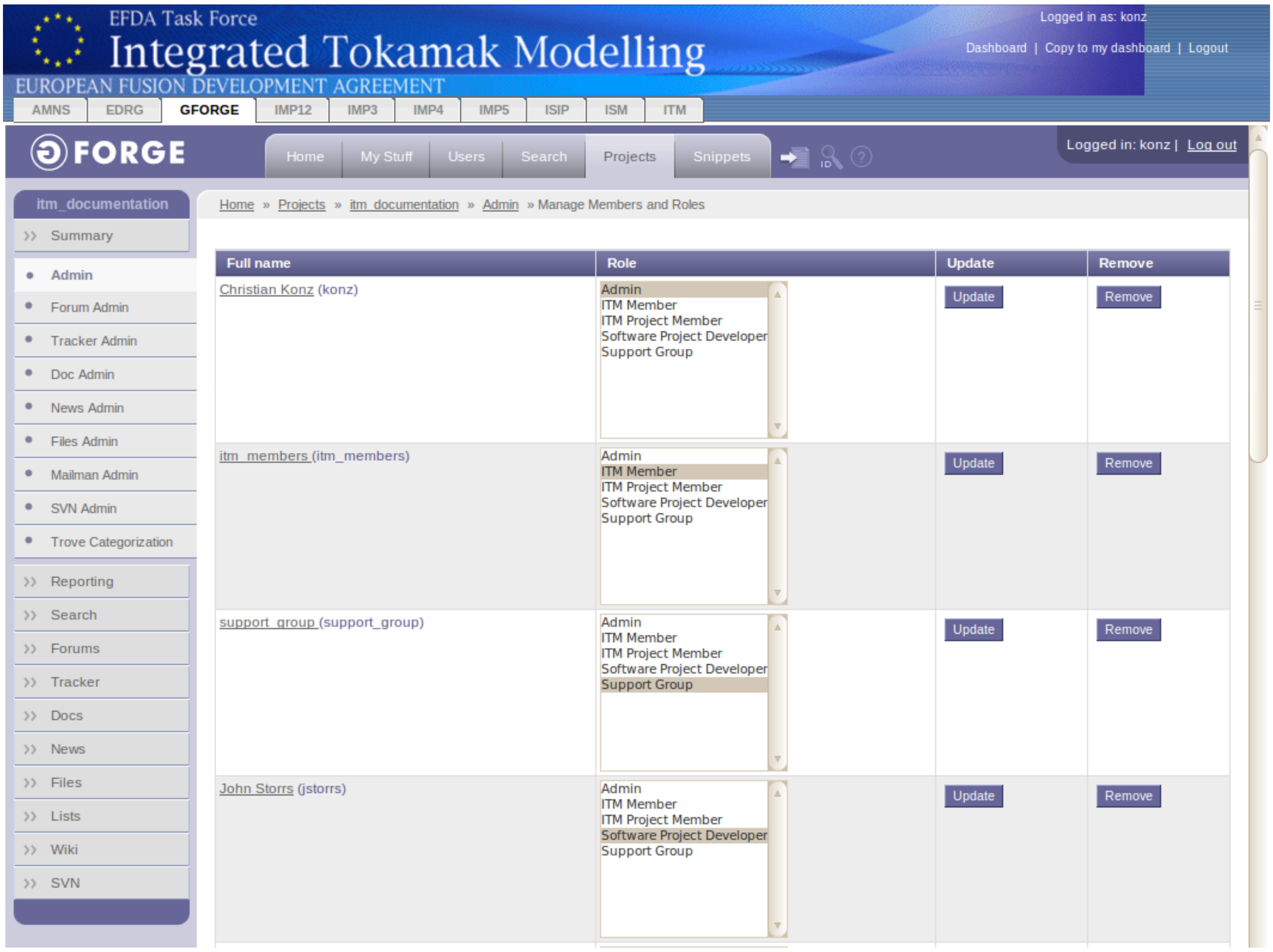
By clicking on any of the projects in the project list you are taken to the project page. Below you see the example of the *doc_test* project page.



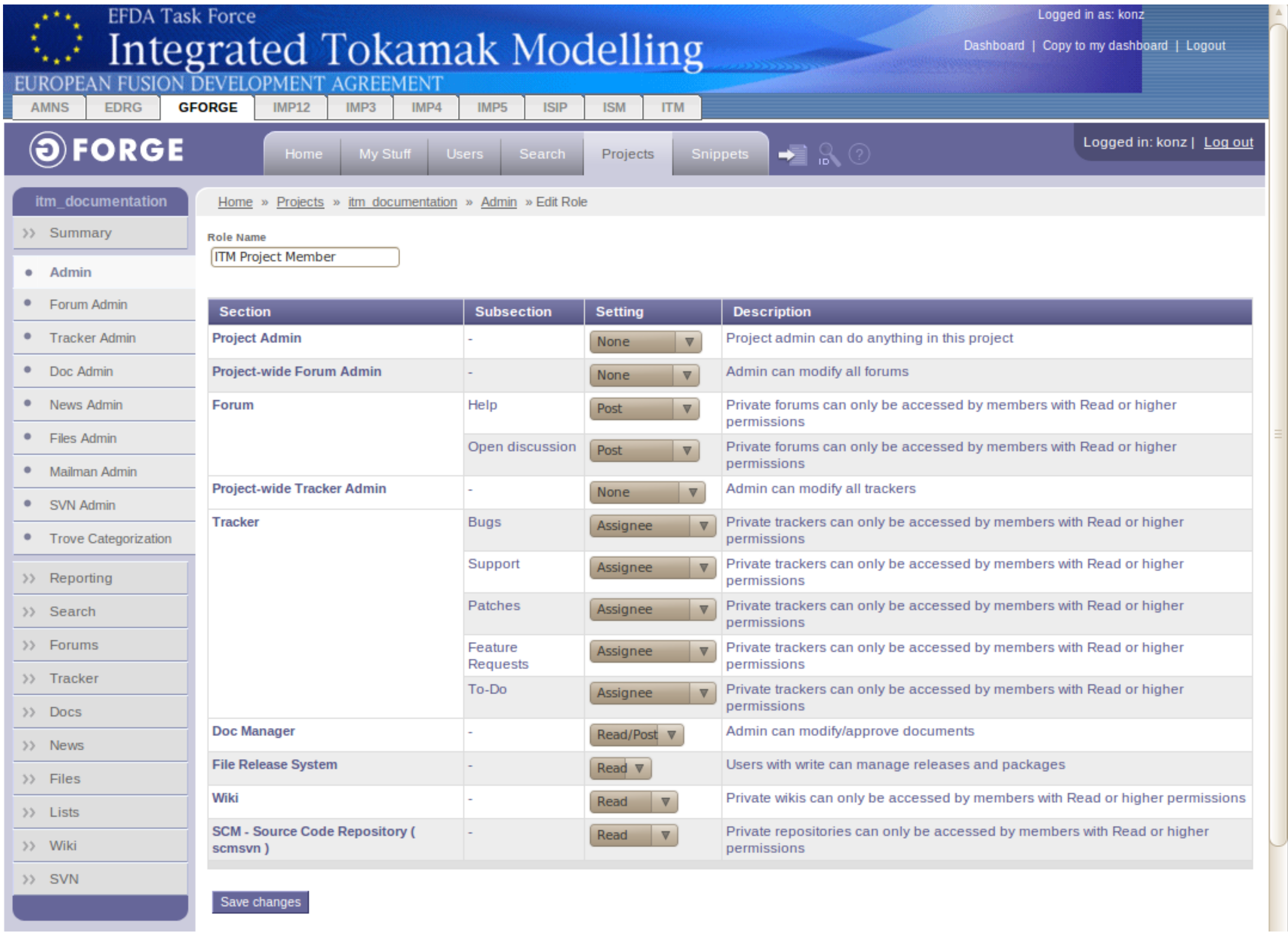
On the project page, you see a diagram showing the project's activity and a list of the recent commit messages. You'll also find a button *Request to joing project* which you might use to join a project (see How to become a member of a Gforge project (13.8)).
Furthermore, you'll find a list of all developers for this project and a short description of the project together with the trove categorization.
If you have administrator rights for a project, you might click on the *Admin* register on the left-hand side.



In the *Admin* section, you may manage members of the project and their roles, define and modify roles, honor 'requests to join' and much more. The key item here is *Manage Members and Roles* .



In this section, you can manage each member's access permissions to the subversion repository. This can be done for a single user or for an entire group. A predefined group for instance, which has read access to the repository, is *ITM Members* . Every ITM member is automatically granted read access to your repository. If you like to change this, you need to got to the *Edit Roles* section.



Here you can set access permissions in a granular way. If you like to change the access permission to the subversion repository, have a look at the SCM settings.

last update: 2012-07-18 by coster

13.6 How to handle code specific parameters

This section explains how to treat code specific parameters in the framework of the ITM-TF.

Code specific parameters are all parameters which are specific to the code (like switches, scaling parameters, and parameters for built-in analytical models) as well as parameters to explicitly overrule fields in the ITM data structures.
Generally no data (should go into CPOs (29)).

ITM Convention:
As the rest of the data structures, all code specific parameters should be given in XML format, i.e., in form of an XML string.

Each CPO features a structure called `codeparam` which, among other information like code name and version, contains the string or string array `parameters` to receive the XML string.

For `Fortran90` the data type definitions are shown below:

```
type type_codeparam  !
  character(len=132), dimension(:), pointer ::codename => null()       ! /codeparam/codename - Name of the code
  character(len=132), dimension(:), pointer ::codeversion => null()       ! /codeparam/codeversion - Version of the code (as in the ITM repository)
  character(len=132), dimension(:), pointer ::parameters => null()       ! /codeparam/parameters - List of the code specific parameters, string expected to be in XML format.
  character(len=132), dimension(:), pointer ::output_diag => null()       ! /codeparam/output_diag - List of the code specific diagnostic/output, string expected to be in XML format.
  integer  :: output_flag=-999999999       ! /codeparam/output_flag - Output flag : 0 means the run is successful, other values meaning some difficulty has been encountered, the exact meaning is then
endtype

type type_param  !
  character(len=132), dimension(:), pointer ::parameters => null()       ! /param/parameters - Actual value of the code parameters (instance of coparam/parameters in XML format).
  character(len=132), dimension(:), pointer ::default_param => null()       ! /param/default_param - Default value of the code parameters (instance of coparam/parameters in XML format).
  character(len=132), dimension(:), pointer ::schema => null()       ! /param/schema - Code parameters schema.
endtype
```

In addition to the data structure type `type_codeparam` which contains the above mentioned XML string, a data structure type `type_param` has been defined. This structure is used by the automatic actor (29) generator tool FC2K (29) . It contains three fields, all of which are string arrays. The first field `parameters` is to hold the actual code specific parameters, whereas the second field `default_param` allows for the defintion of a complete set of default values for the code specific parameters. The third field `schema` finally shall hold the W3C XML schema which describes the code specific structure of the XML string in `parameters` .

For `C/C++` the structure `codeparam` is defined as a struct (see below).

```
struct codeparam {
std::string codename;
std::string codeversion;
std::string parameters;
std::string output_diag;
int output_flag;
} codeparam;
```

The XML string to hold the code specific parameters is stored in the string `parameters` .

13.6.1 Why XML?

- extremely versatile markup language ('generalisation' of HTML)
- self-describing data through use of DTDs (document type definitions) or W3C schemas
- simple to edit: plain ASCII, similar to HTML
- can handle all levels of complexity
- large and fast growing user community
- large infrastructure of tools for XML creation, manipulation, and usage: XPath, XPointer, XSLT, XSL-FO, CSS, parsers, editors, browsers, etc.
- already in use for CPO definitions
- allows separation of generic tools and code specific parameters

A real world example for code specific parameters in the form of an XML string is shown in the figure below.

```xml
<?xml version="1.0"?>

<?xml-stylesheet type="text/xsl" href="./input_helena.xsl"
charset="ISO-8859-1"?>

<parameters>

<!-- profile parameters -->

 <profile_parameters>
   <hbt> .false. </hbt>
   <input_type> p' and FF' </input_type>
   <radial_coordinate> psi </radial_coordinate>
 </profile_parameters>

<!-- shape parameters -->

 <shape_parameters>
   <isol> 0 </isol>
   <ias> 1 </ias>
   <imesh> 2 </imesh>
   <n_acc_points> 2 </n_acc_points>
   <s_acc> 0.7 1.0 </s_acc>
   <sig> 2.5 0.1 </sig>
   <weights> 0.1 1.0 </weights>
   <equidistant> 0. </equidistant>
 </shape_parameters>


<!-- ... and so on ... -->


<!-- diagnostics parameters -->

 <diagnostics_parameters>
   <verbosity> 4 </verbosity>
   <output> full </output>
   <diagnostics_on> .true. </diagnostics_on>
   <standard_output> .true. </standard_output>
 </diagnostics_parameters>

</parameters>
```

The example shows a reduced set of code parameters for the fixed boundary equilibrium module `HELENA` . It demonstrates in a nice way the use of XML for code parameters. Every tag, i.e. the elements enclosed in the brackets '<' and '>' must be closed which is done by the closing tag which is enclosed by '</' and '>'.
The first two elements are standard for any XML document. The first defines the version of XML being used while the second defined a style sheet for visualizing the XML string in a browser. The second element is optional and only becomes operational when you provide a style sheet - marked by the suffix `.xsl` .
The root tag, which is the outermost container of all other elements, should be the `parameters` element.
Comments of arbitrary length may be added using the `'<!--'` and `'-->'` delimiters.
The XML document can have an arbitrary structure and depth. The actual values of the code parameters are entered between the enclosing tags as simple ASCII. All types, e.g. strings, integers, floats, booleans are possible as well as arrays of them. Elements in arrays shall be separated by spaces only (no commas) and appear as simple lists. No quotes are used for strings. The values for boolean elements depend on which programming language will process them. E.g. Fortran90 allows for `.true.` and `.false.` as valid values.
The order of elements can be arbitrarily chosen. Only the structure, i.e. enclosing container tags, matters.

13.6.2 W3C XML Schemas

Among the many possibilities the ITM-TF has opted for the use of W3C XML schemas to describe which elements are allowed in the XML code parameter string for an ITM-TF module. The definition of a schema allows for the design of generic tools through the seperation of the specific structure of the code parameters of a specific module from the development of those tools. By defining a W3C XML schema, all code specific information is cast into a single file which is itself an XML string. Therefore, the same tools, e.g. XML parsers, can be used for both the code parameters as well as the XML schema.
For more details please refer to the Tutorial on W3C XML Schemas (13.6.11).

13.6.3 How to convert Code Parameters into XML

To convert the code parameters of an existing physics code into XML, you will have to carry out 3 major steps. A variety of tools have been developed by the ITM-TF to assist you in this process.

13.6.3.1 Step 1: Extraction - XML Schema

In a first step, you should extract the structure of the code specific parameters (i.e. names, types, structures, dimensions, allowed choices and ranges, etc.) into a separate file, the so-called **W3C XML Schema** .
The tool **CREATE_SCHEMA** (13.6.5)in the project `xmllib` may help you to automatically generate a skeleton XML schema from a simple ASCII list of your code parameters.

Advantages:

- no format specific read subroutines needed anymore
- all tools can be made generic
- all code specific information stored in one single external file or XML string
- creation of the schema is a 'once-in-a-code's-lifetime' event
- later changes very simple through changing the schema
- enables *input checking* before running the code
- schema serves as *minimum documentation* for input

13.6.3.2 Step 2: Conversion - XML File

In a second step, you should convert your former input files containing the code parameters into XML input files like the one shown in the section Why XML? (13.6.1). These XML input files are *instances* of the XML schema of the code.
No tools to assist you with this conversion yet exist but tools to generate empty XML input files as well as to convert Fortran namelist files into XML input files are currently under development.

Advantages:

- text input files easier to understand by user
- same advantage as namelist: input does not have to be complete
- free order of input parameters as long as structure is not changed
- possibility to define beginner's and expert's settings
- input checks possible
- XML can be used for namelist input as well as any other format

13.6.3.3 Step 3: Assignment Function

In the third step, you need to create the so called assignment function. This function assigns the values from your XML input file to the corresponding variables in your code. Since compiler languages like Fortran or C/C++ do not know *introspection* , this function cannot be created in a generic way. It's specific shape depends on the structure of the specific code.
It can however be automatically generated for simple W3C XML schemas using the **CREATE_ASSIGN** (13.6.6)tool (so far only for Fortran90 modules) of the project `xmllib` .

Advantages:

- generic tools have to be developed only once and can be used for any code
- generic tools as separate library - easier to maintain
- GUI development or use of existing GUIs become possible (e.g. xforms in a browser)
- users do not need to know about XML at all
- developers need to know only very little about XML

13.6.4 ITM XML Parser

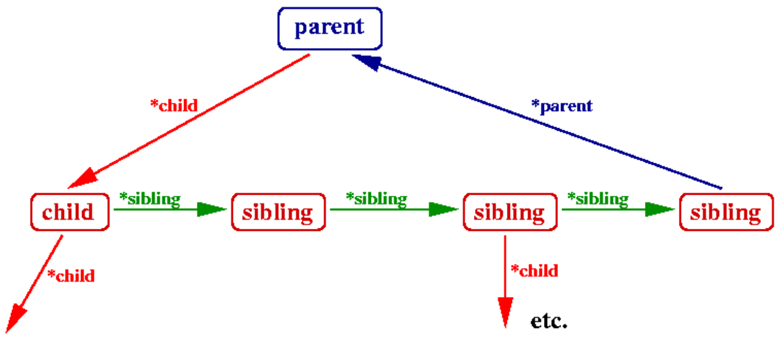
A large variety of parsers for XML are available in the XML community. However, to be able to quickly adapt the parsers, the ITM-TF has developed its own simple XML parsers in Fortran90 and C/C++. These parsers were specifically designed to fulfill the needs of the ITM-TF and to work smoothly with its infrastructure.

13.6.4.1 Fortran90

Lightweight Fortran90 parser for XML documents:

- compact (~500 lines Fortran90), efficient, fast parser
- parses XML documents with arbitrary depth and complexity (except for attributes)
- based on W3C XML Schemas (can be used to validate XML documents)
- uses tree-like lists with parent, child, and sibling pointers
- tag names and value lists of arbitrary length (dynamical memory allocation)
- available as module `euitm_xml_parser`
- first parses the code specific W3C schema, then parses the entire XML document sequentially like SAX
- comes with useful subroutines in `xml_tools.f90` and `string_manipulation_tools.f90`

Tree Structure



euitm_xml_parse:

- input parameter of type `type_param` contains the XML schema in string array `schema` and the XML string for the code parameters in string array `parameters`
- parses the schema and builds an empty tree with the structure described by the schema: associates the corresponding pointers, allocates the tag names `cname` and fills in the tag names
- parses the actual XML document and fills the parsed values `cvalue` into the tree
- returns the complete tree in `parameter_list` and the number of successfully parsed parameters `nparm`

For information on how to call the Fortran90 XML parser please refer to the section on CREATE_ASSIGN (13.6.6).

check out project `xmllib`

```
svn co https://gforge6.eufus.eu/svn/xmllib target_dir
```

The Fortran90 XML Parser can be found in `trunk/src/` .

13.6.4.2 C/C++

under construction

13.6.5 Creating XML schemas with CREATE_SCHEMA

```
-+shot                                ! shot related parameters
  source        string*15             ! source specifier
  nshot         integer
  tshot         float                 ! time slice
-+options                             ! option parameters
  udsym         boolean               ! up-down symmetric
  psibnd        float
  mfm           integer
```

Create a parameter list in `parameter_list.txt` like the one in the example above:

- precede namelist or block names with '-+' level identifiers
- list name, type, and dimension for each parameter in namelist
- specify length of strings with '*' right after 'string' type
- add comments following '! '
- names must be alphanumeric, no special characters, no spaces, underscores allowed

check out project `xmllib`

```
svn co https://gforge6.eufus.eu/svn/xmllib target_dir
```

The tool `CREATE_SCHEMA` can be found in `branches/toolbox/schema_generator/` .

Run CREATE_SCHEMA

- move `parameter_list.txt` into `input/`
- `gmake -f makefile_pgi` in `obj/`
- `./create_schema.e` in `run/`
- generates `w3c_schema.xsd` in `output/`

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <!-- document element -->
  <xs:element name="parameters">
    <xs:complexType>
      <xs:all>
        <xs:element ref="shot"/>
        <xs:element ref="options"/>
      </xs:all>
    </xs:complexType>
  </xs:element>

  <!-- shot related parameters -->
  <xs:element name="shot">
    <xs:complexType>
      <xs:all>
        <xs:element ref="source"/>
        <xs:element ref="nshot"/>
        <xs:element ref="tshot"/>
      </xs:all>
    </xs:complexType>
  </xs:element>

  <!-- option parameters -->
  <xs:element name="options">
    <xs:complexType>
      <xs:all>
        <xs:element ref="udsym"/>
        <xs:element ref="psibnd"/>
        <xs:element ref="mfm"/>
      </xs:all>
    </xs:complexType>
  </xs:element>

  <!-- source specifier -->
  <xs:element name="source">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="15"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
```

Polish and improve your schema (optional):

- add `minOccurs="0"` if parameter is optional
- add range restrictions for integers and floats by defining new `simpleTypes` using restriction with `minInclusive` and `maxInclusive` or `minExclusive` and `maxExclusive`
- define allowed options for strings or integers using `pattern`
- limit length of arrays by using `maxLength`
- etc., etc.

13.6.6 Creating assignment functions with CREATE_ASSIGN

The automatic creation of the assignment functions is currently only available for Fortran90. An equivalent tool for C/C++ is yet to be created.

13.6.6.1 Fortran90

The tool `CREATE_SCHEMA` uses the previously defined list `parameter_list.txt` and the generated schema `w3c_schema.xsd` to automatically generate a Fortran90 subroutine `assign_code_parameters.f90` which can be used to assign the code parameters read from the XML string to the internal variables of your module.
To generate the assignment subroutine first check out project `xmllib`

```
svn co https://gforge6.eufus.eu/svn/xmllib target_dir
```

The tool `CREATE_ASSIGN` can be found in `branches/toolbox/assignment_generator/` .

Run CREATE_ASSIGN

- move parameter_list.txt into input/
- move w3c_schema.xsd into input/
- gmake -f makefile_pgi in obj/
- ./create_assign.e in run/
- generates assign_code_parameters.f90 in output/

```
subroutine assign_code_parameters(code_parameters, return_status)

!-----------------------------------------------------------------------
! calls the XML parser for the code parameters and assign the
! resulting values to the corresponding variables
!-----------------------------------------------------------------------

  use itm_types

!Add the modules hosting the relevant variables here!

  use euitm_schemas
  use euitm_xml_parser

  implicit none

  integer(itm_i4), parameter :: iu6 = 6

  type (type_param) :: code_parameters
  integer(itm_i4), intent(out) :: return_status

  type(tree) :: parameter_list
  type(element), pointer :: temp_pointer
  integer(itm_i4) :: nparm, n_values
  character(len = 132) :: cname

  nparm = 0
  n_values = 0
  return_status = 0      ! no error

!-- parse xml-string code_parameters%parameters using W3C XML schema in
!   code_parameters%schema
  call euitm_xml_parse(code_parameters, nparm, parameter_list)

!-- assign variables

  temp_pointer => parameter_list%first

  outer: do
    cname = char2str(temp_pointer%cname)   ! necessary for AIX
    select case (cname)
      case ("parameters")
        temp_pointer => temp_pointer%child
        cycle
      case ("shot")
        temp_pointer => temp_pointer%child
        cycle
```

CREATE_ASSIGN generates the Fortran90 subroutine assign_code_parameters.f90 which if called will do everything which is needed to read the XML schema, parse the XML string, and assign the values found in the XML string to the corresponding variables in the code. In most cases, no or very little manipulation of this subroutine is needed, for instance in the case of deep structures (more than 2 levels) and arrays. Please refer to existing schemas and assignment routines, like those for the **HELENA** module, for guidance.

The tool CREATE_ASSIGN assumes that the variable names in your code agree with the names which you have chosen for the code parameters.

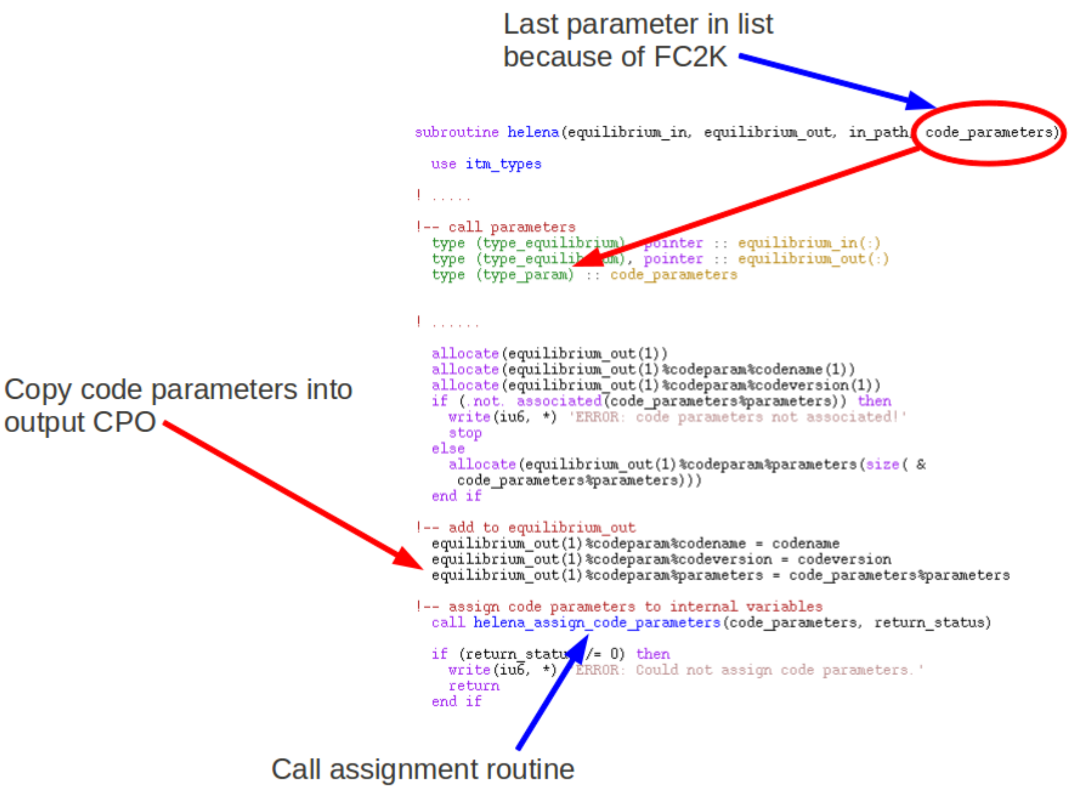
If this is not the case, you will have to edit the names in the assignment statements or calls to char2num by hand to match your internal variables.

The assignment routine receives the parameter code_parameters of type type_param which holds both the XML schema as well as the actual XML string (see above (13.6)).
It calls the ITM-TF Fortran90 Parser euitm_xml_parse on the structure code_parameters (see Fortran90 Parser (13.6.4.1)) which returns the tree of stacked code parameters from the XML schema together with the values found in the XML string as a single connected list in parameter_list . The remaining loop together with the select structure then steps through the tree and assigns all values which it finds to the corresponding internal variables.

assign_code_parameters:

- sets pointer to head of list `parameter_list%first`
- assigns values to in-code variables by stepping through the tree and using select case constructs and the interfaces in `string_manipulation_tools.f90`
- finally destroys the tree

The figure below demonstrates how to call the assignment routine from your module.



Make sure that the assignment subroutine can access the required internal variables through use statements or other ways.

`assign_code_parameters` uses the ITM standard `itm_types` for its variable declarations.

13.6.6.2 C/C++

Development of the tool for C/C++ is still pending.

13.6.6.3 Validating your XML

To validate your XML and XSD files, you may use xmlstar (path: $SWITMDIR/xmlstar/bin/):
usage:

```
xml val -w file.xml
```

or

```
xml val -s file.xsd file.xml
```

The first validates an XML file (could also be a schema) and is very useful for detecting syntactic errors. The second validates the schema (file.xsd) and the XML file (file.xml) against the schema.

13.6.7 Developments from January 2013

13.6.7.1 Creating default XML

The data going into the actor has to be stored in an xml-file that follows the data-structure defined by the xml-schema. An automated way to generate this xml file can be stored in the directory `xmllib/branches/toolbox/xml_generato` . Generate the xml-file place a schema in `xmllib/branches/toolbox/xml_generator/input` and then run `make` in `xmllib/branches/toolbox/xml_generator/obj/` . The output xml-file will then be generated in the directory `xmllib/branches/toolbox/xml_generator/output/` .

13.6.7.2 Creating XML and parameter-list.txt from namelists

Under Construction

To generate the xml and the parameter-list.txt first check out project `xmllib`

```
svn co https://gforge6.eufus.eu/svn/xmllib xmllib
```

The conversion is done by first placing the namelist in the directory `xmllib/branches/toolbox/namelists/input/` . Then run `make` in the directory `xmllib/branches/toolbox/namelists/` .

13.6.7.3 Automated creation of XML/XSD/assign_codeparam.f90

An automated proceedure has been installed to generate all files needed to install code-parameters in a Fortran code. The procedure require that you first put you file `parameter_list.txt` in the directory `xmllib/branches/toolbox/scl` and then type `make` in the directory `xmllib/branches/toolbox/` . All output file are then stored in `xmllib/branches/tool` .

13.6.8 Resources

13.6.8.1 Online

- **XML.com**
  The web site http://www.xml.com [1168] is one of the most complete and timely sources of XML information and news around.
- **XML.org**
  Sponsored by OASIS, http://www.xml.org [1169] has XML news and resources, including the XML Catalog, a guide to XML products and services.
- **DocBook**
  OASIS, the maintainers of DocBook, have a web page devoted to the XML application at http://www.docbook.org [1170].
- **W3C**
  The World Wide Web Consortium at http://www.w3.org [1171] oversees the specifications and guidelines for the technology of the World Wide Web. Check here for information about CSS, DOM, (X)HTML, MathML, XLinks, XML, XPath, XPointer, XSL, and other web technologies.

[1168] http://www.xml.com
[1169] http://www.xml.org
[1170] http://www.docbook.org
[1171] http://www.w3.org

13.6.8.2 ITM-TF

Join **project XMLLIB** under Gforge [1172].
(see How to join a Gforge project (13.8))

Fortran90 XML Parser:
https://gforge6.eufus.eu/svn/xmllib/trunk/parser

Schema Generator CREATE_SCHEMA:
https://gforge6.eufus.eu/svn/xmllib/branches/create_schema

Generate assign_code_parameters.f90 with CREATE_ASSIGN:
https://gforge6.eufus.eu/svn/xmllib/branches/create_assign

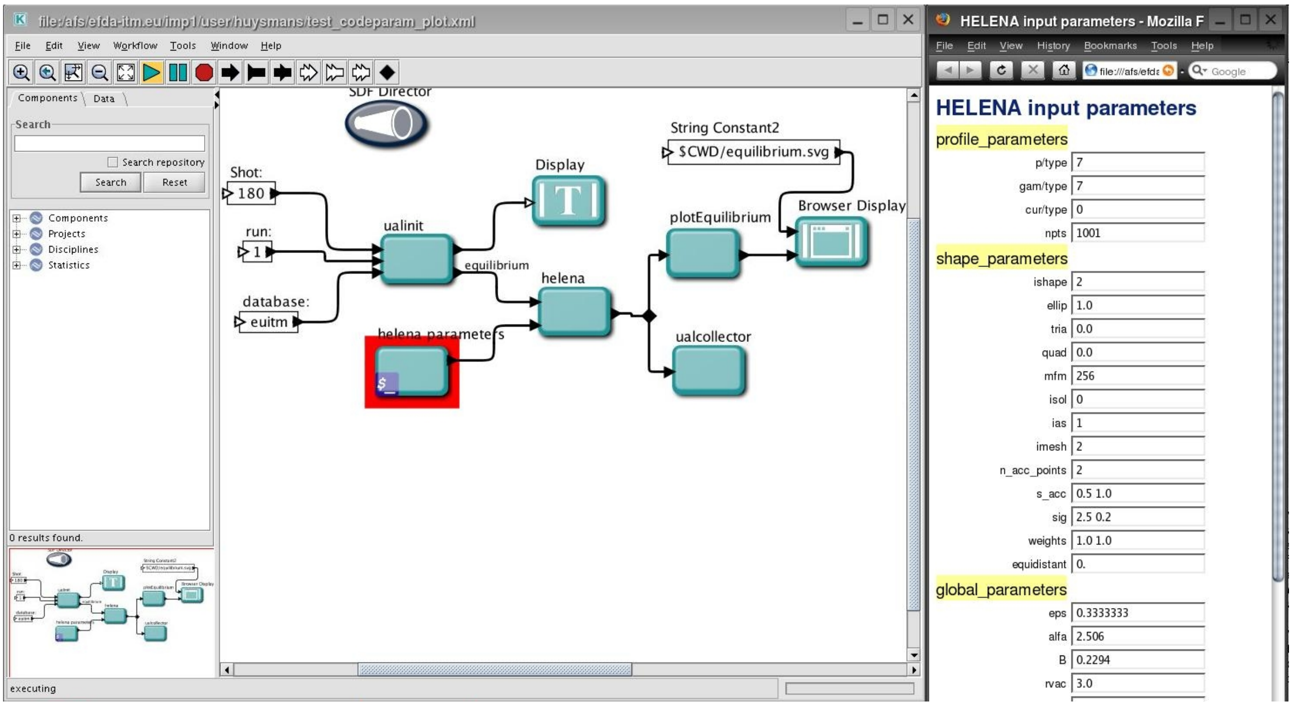
13.6.9 GUIs

13.6.9.1 XForms

Use browser to interface XML documents based on W3C schema

XForms: 'XML application that represents the next generation of forms for the Web. By splitting traditional XHTML forms into three parts - XForms model, instance data, and user interface - it separates presentation from content...' (W3C)

- use a W3C XML schema to generate the fields in the form
- use an XML document to fill data into the fields (default values possible)
- XForm is an XHTML file created from the XML schema using a stylesheet (done only once)
- existing extensions to Firefox 2 and 3 required



(by courtesy of G. Huysmans)

[1172] https://gforge6.eufus.eu

13.6.10 XML Tools

tons of open source XML tools available

xmlstarlet carries out various XML operations, including validation against DTDs and schemas (xmlstarlet [1173]).

Examples:

To test whether a file is well-formed XML:

```
xml val -w helena.xml
```

To test a file against an XML schema:

```
xml val -e --xsd helena.xsd helena.xml
```

IBM XML Schema Quality Checker:
Checks for problems in W3C XML Schemas, and clearly identifies any problems found (xmlsqc [1174]).

To check a schema file:

```
ibmsqc helena.xsd
```

13.6.11 Tutorial on W3C XML Schemas

Short Introduction to W3C XML Schemas:

- Among other schemas (RELAX NG, Schematron) **W3C XML Schemas** are directed toward describing how elements are arranged in a document (like the syntax or grammar of a language - your personal 'XML language').
- Other than DTDs, W3C XML Schemas can also constrain the type of data in an element.
- XML Schemas are themselves XML documents, i.e., allow for checks for well-formedness and validity.

Example: **root element and container elements**

[1173] http://xmlstar.sourceforge.net/
[1174] http://www.alphaworks.ibm.com/tech/xmlsqc

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <!-- document element -->
  <xs:element name="parameters">
    <xs:complexType>
      <xs:all>
        <xs:element ref="mode" maxOccurs="1"/>
        <xs:element ref="numerical_parameters" maxOccurs="1"/>
        <xs:element ref="plot_data" maxOccurs="1"/>
        <xs:element ref="physical_parameters" maxOccurs="1"/>
        <xs:element ref="boundary_conditions" maxOccurs="1"/>
        <xs:element ref="external_perturbation" minOccurs="0" maxOccurs="1"/>
      </xs:all>
    </xs:complexType>
  </xs:element>

  <!-- mode -->
  <xs:element name="mode">
    <xs:complexType>
      <xs:all>
         <xs:element ref="version" maxOccurs="1"/>
         <xs:element ref="modus" maxOccurs="1"/>
         <xs:element ref="solver" maxOccurs="1"/>
         <xs:element ref="toroidal_mode_number_scan" minOccurs="0"
                     maxOccurs="1"/>
         <xs:element ref="toroidal_scan_mode" minOccurs="0" maxOccurs="1"/>
         <xs:element ref="iterative_scan" minOccurs="0" maxOccurs="1"/>
         <xs:element ref="iterative_scan_mode" minOccurs="0" maxOccurs="1"/>
         <xs:element ref="mode_type" minOccurs="0" maxOccurs="1"/>
         <xs:element ref="poloidal_window" minOccurs="0" maxOccurs="1"/>
         <xs:element ref="equilibrium" maxOccurs="1"/>
         <xs:element ref="in_equilibrium" maxOccurs="1"/>
         <xs:element ref="format_type" maxOccurs="1"/>
         <xs:element ref="in_units" maxOccurs="1"/>
         <xs:element ref="out_length" maxOccurs="1"/>
         <xs:element ref="out_num" maxOccurs="1"/>
         <xs:element ref="stop_program" maxOccurs="1"/>
      </xs:all>
    </xs:complexType>
  </xs:element>
```

Example: **string with prescribed values**

```
  <xs:element name="version">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:pattern value="eigenvalue problem|external perturbation"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
```

Example: **string with length constraint**

```
  <xs:element name="in_equilibrium">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="100"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
```

Example: **integer with minimum value**

```
<xs:element name="manz">
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

Example: **user defined simpleType unit_float**

```
<xs:simpleType name="unit_float">
  <xs:restriction base="xs:float">
    <xs:minInclusive value="0"/>
    <xs:maxInclusive value="1"/>
  </xs:restriction>
</xs:simpleType>

<xs:element name="r_beg" type="unit_float"/>
```

Example: **array of user defined simpleType**

```
<xs:element name="s_min" type="RestrictedUnitFloatList"/>
<xs:element name="ds_min" type="RestrictedUnitFloatList"/>
<xs:element name="c_s" type="RestrictedPosFloatList"/>

<xs:simpleType name="PosFloatList">
   <xs:list itemType="pos_float"/>
</xs:simpleType>

<xs:simpleType name="RestrictedPosFloatList">
  <xs:restriction base="PosFloatList">
    <xs:maxLength value="10"/>
  </xs:restriction>
</xs:simpleType>
```

Limitation: no arrays of complex types allowed!
(issue with arrays of complex numbers for instance; may hopefully be lifted in the near future)

---

last update: 2019-01-31 by g2dpc

13.7 Access Forms for the ITM Gateway

13.7.1 How to get an account on the ITM Gateway

As a new contributor to the ITM-TF or a new user on the ITM-TF Gateway (29) you are requested to sign the ITM-TF Gateway User Agreement (doc) [1175](pdf) [1176]. This is required to get an account on the Gateway the ITM-TF development home.

Please fill in the requested information and send the signed document to

Att: ITM-TF/Gloria Falchetto
Association EURATOM-CEA
DSM/IRFM/SCCP, bt. 513/141
CEA-Cadarache
13108 Saint Paul-Lez-Durance Cedex
France

Or fax to:

[1175] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[1176] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf

+33 442 25 6233

Or send as an e-mail attachment to (Subject: Gateway User Agreement):

gloria.falchetto@cea.fr

New Gateway User Greeting (doc) [1177](pdf) [1178]

13.7.2 ITM policy on Access Rights and Software Licencing

The ITM has defined a model licence for all physics codes and numerical tools (including the ITM infrastructure) that have been contributed/developed within the framework of the ITM Workprogramme. This model licence [1179] was approved by the EFDA Steering Committee on October 2009.

---

last update: 2010-11-23 by konz

13.8 How to become a member of a Gforge project.

To become a member of a Gforge project please login to the ITM Portal (29) at

https://portal.eufus.eu [1180]

and follow the tabs

```
GFORGE -> Projects
```

Now find the project you would like to join on the list of projects.
Please click on the link and then on the button

.
The project leader will likely honor your request and add you as a developer to the project.

13.9 How to turn a C++ code into a Kepler actor

This document is based on material provided by Yann Frauel and describes how to make your C++ code ITM compliant and how to turn it into a Kepler (29) actor (29) .

13.9.1 Adapt your C++ function

You must include the header file `UALClasses.h` :

```
#include "UALClasses.h"
```

The function arguments that are arrays or strings must be declared as pointers, as usual. All other arguments must be passed by reference (i.e. they must be declared with an ampersand):

```
void mycppfunction(double * vector, char * string, int & scalar)
```

[1177] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[1178] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[1179] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf

The function arguments that are CPOs (29) must be declared with types `ItmNs::Itm::cpo_type` or `ItmNs::Itm::cpo_typeA`
. The first form is for time-independent CPOs or a single slice of a time-dependent CPO. The latter is for a complete time-dependent CPO. Note that in all cases, the CPO is considered as a single object, not an array, so it must be passed by reference as mentioned above:

```
void mycppfunction(
ItmNs::Itm::limiter & lim,
ItmNs::Itm::coreimpur & cor,
ItmNs::Itm::ironmodelArray & iron)
```

The syntax is identical for input and output arguments. For output CPOs, do not forget to use the usual methods to assign strings and allocate arrays:

```
lim.datainfo.dataprovider.assign("test_limiter");
iron.array.resize(3);
iron.array(j).desc_iron.geom_iron.npoints.resize(3);
```

Otherwise, the content of CPOs is accessed as usual:

```
cout << lim.datainfo.dataprovider << endl;
cout << iron.array(j).desc_iron.geom_iron.npoints(i);
```

13.9.2 How to use code parameters

The code parameters are passed as the last argument with ItmNs::codeparam_t& type:

```
void mycppfunction(..., ItmNs::codeparam_t & codeparam)
```

Each field of the *param* structure is a vector of 132-byte strings, not necessarily terminated by 0-character! (This does not follow C/C++ standards and should be changed in the future.)

13.9.3 Compile your function as a library

You need to include the header directories for the UAL (29) and Blitz:

```
-I$(UAL)/include -I$(UAL)/lowlevel -I$(UAL)/cppinterface/ -I/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/include/
```

Same for linking:

```
-L$(UAL)/lib -lUALCPPInterface -lUALLowLevel -L/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/lib -lblitz
```

Additionally, you must compile with the -fPIC option.

13.9.4 Full example

We want to generate an actor that has three different types of actors as inputs and three different types of actors as output. Additionally, we have an integer as input/output, a vector of doubles as output and a string as output. We also want to use code parameters.

Content of mycppfunction.cpp:

```
#include "UALClasses.h"

typedef struct {
      char **parameters;
      char **default_param;
      char **schema;
} param;

void mycppfunction(
      ItmNs::Itm::summary & sum,
      ItmNs::Itm::antennas & ant,
      ItmNs::Itm::equilibriumArray & eq,
      int & x,
      ItmNs::Itm::limiter & lim,
      ItmNs::Itm::coreimpur & cor,
      ItmNs::Itm::ironmodelArray & iron,
      double * y,
      char * str,
param & codeparam)
{

      /* display first line of parameters */
      cout << codeparam.parameters[0] << endl;
      cout << codeparam.default_param[0] << endl;
      cout << codeparam.schema[0] << endl;
      /* display content of inputs */
      cout << "x=" << x << endl;
      cout << sum.time << endl;
      cout << sum.datainfo.dataprovider << endl;
      cout << ant.datainfo.dataprovider << endl;
      cout << eq.array(0).datainfo.dataprovider << endl;
      for (int k=0; k<3; k++) {
           for (int i=0; i<4; i++) {
                 cout << eq.array(k).profiles_1d.psi(i)<< " ";
           }
           cout << endl;
      }
      /* fill limiter CPO */
      lim.datainfo.dataprovider.assign("test_limiter");
      lim.position.r.resize(5);     // allocate vector
      for (int i=0; i<5; i++) {
            lim.position.r(i)=(i+1);
      }
      /* fill coreimpur CPO */
      cor.datainfo.dataprovider.assign("test_coreimpur");
      cor.flag.resize(3);          // allocate vector
      for (int i=0; i<3; i++) {
            cor.flag(i)=(i+1)*10;
      }
      cor.time=0; // don't forget to fill time for time-dependent CPOs
      /* fill ironmodel CPO */
      iron.array.resize(3);        // allocate slices
      for (int j=0; j<3; j++) {
            char s[255];
            sprintf(s,"test_ironmodel%d",j);
            iron.array(j).datainfo.dataprovider.assign(s); // allocate vector
            iron.array(j).desc_iron.geom_iron.npoints.resize(3);
            for (int i=0; i<3; i++) {
                  iron.array(j).desc_iron.geom_iron.npoints(i)=j*i;
            }
            iron.array(j).time=j;       // fill time for time-dependent CPOs
```

```
        }
        /* assign value to non CPO outputs */
        x=5;
        for (int i=0; i<10; i++) {
              y[i]=i;
        }
        strcpy(str,"This is a test string");
}
```

Content of *Makefile* :

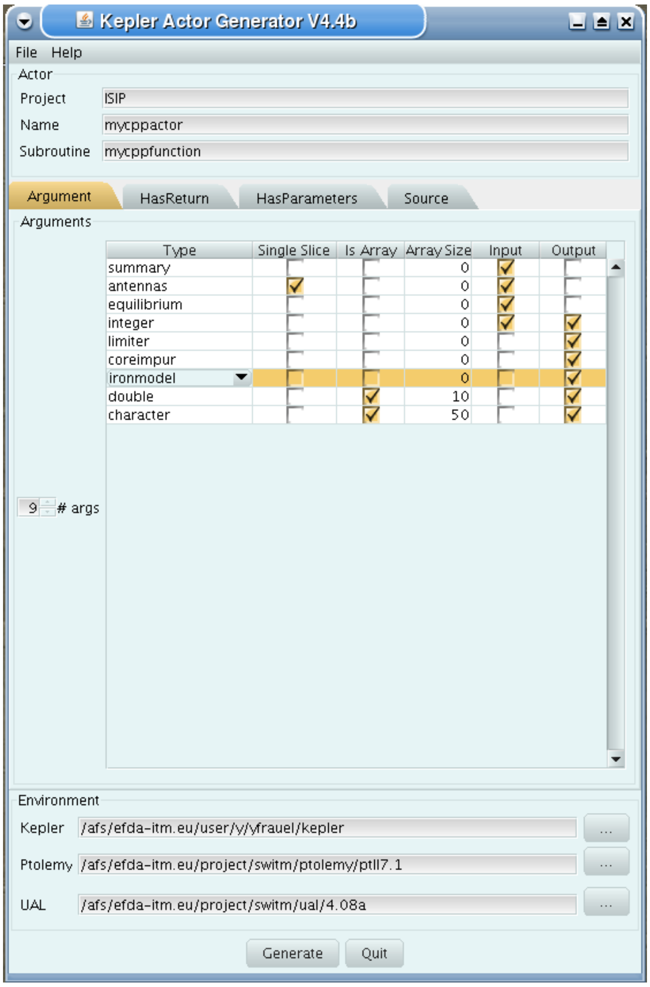
```
CXXFLAGS=-g -fPIC -I$(UAL)/include -I$(UAL)/lowlevel -I$(UAL)/cppinterface/
-I$SWITMDIR/blitz/blitz-0.9/include/
LDFLAGS=-L$(UAL)/lib -lUALCPPInterface -lUALLowLevel -L/afs/efda-
itm.eu/project/switm/blitz/blitz-0.9/lib -lblitz
libmycppfunction.a: mycppfunction.o
        ar -rvs libmycppfunction.a mycppfunction.o
mycppfunction.o: mycppfunction.cpp
clean:
        rm mycppfunction.o libmycppfunction.a
```

13.9.5 How to fill the FC2K window

First tab (Argument):

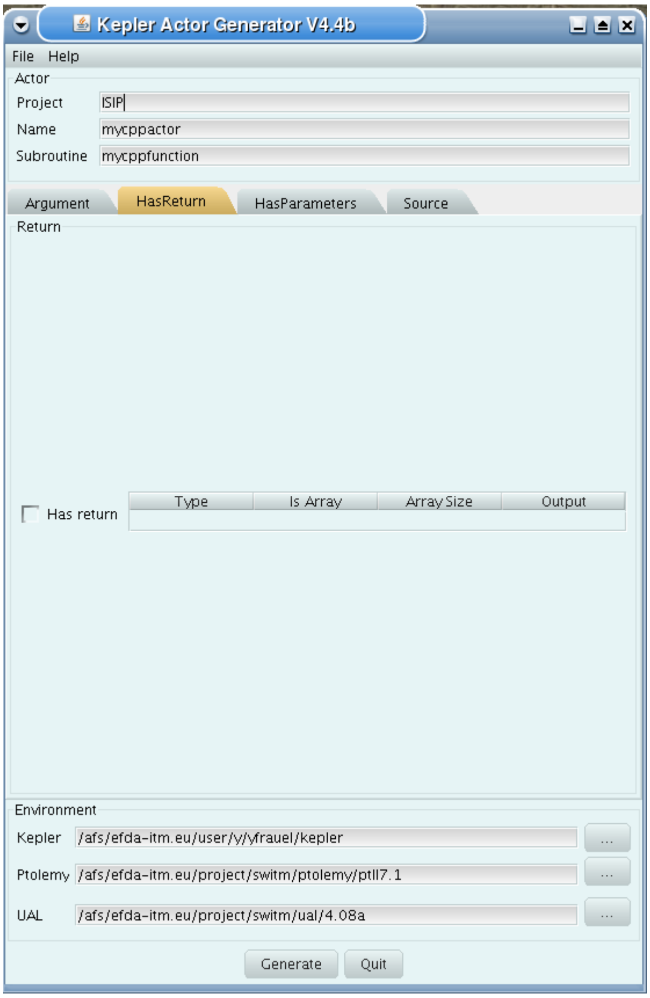
- set number of input and output arguments (combined)
- select type of arguments from drop-down menu
- tick if argument is a single time slice
- tick if argument is array (not for pointers)
- if necessary define size of arrays
- tick if argument is input argument
- tick if argument is output argument (multiple ticks possible)

The fields `Kepler` , `Ptolemy` , and `UAL` are automatically filled with the values which you set by running the **ITMv1 script** .



Second tab (HasReturn):

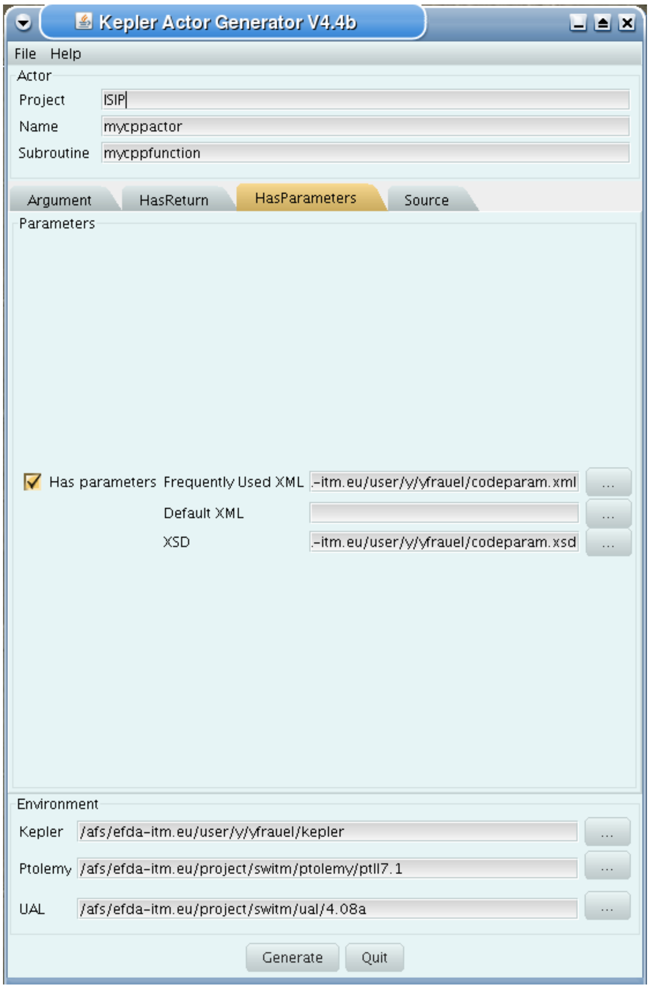
- specify return parameters (type, array, size)



Third tab (HasParameters):

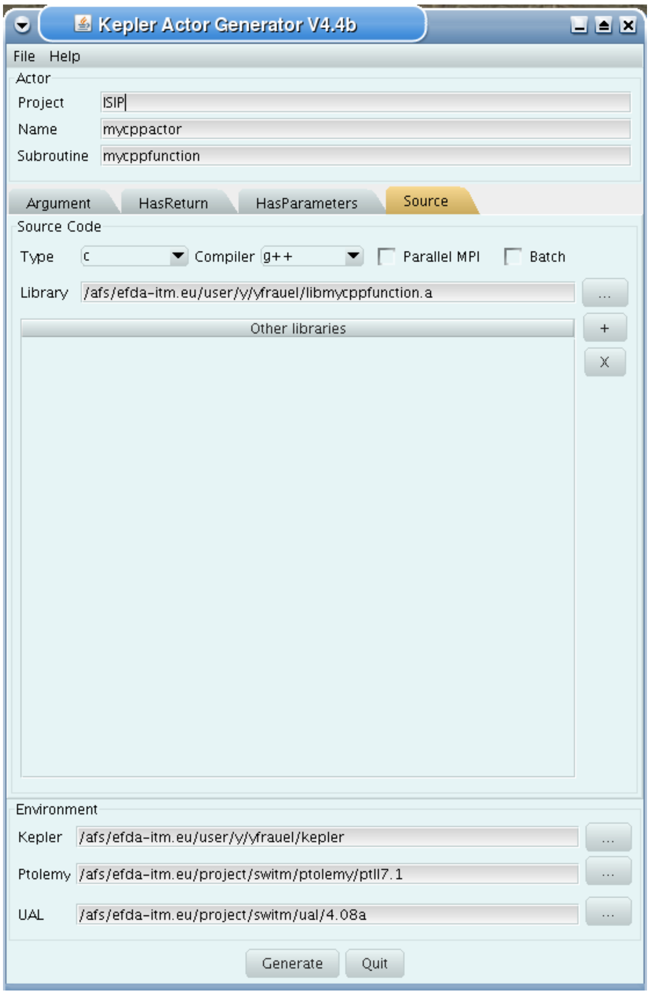
- tick if subroutine uses code specific parameters
- specify (or browse for) XML code parameter input file
- specify (or browse for) XML default code parameter file
- specify (or browse for) W3C XML schema file (XSD)

For information on code specific parameters, please see How to handle code specific parameters (13.6).



Fourth tab (Source):

- specify programming language of source code
- select appropriate compiler
- tick Parallel MPI if code module is using MPI
- tick Batch if code module shall be run in batch mode rather than interactively when running Kepler workflows
- specify (or browse for) library file containing the code module
- specify (or browse for) other libraries required by the code module



last update: 2013-09-12 by dpc

13.10 How to export an actor from Kepler

If you like to export an actor (29) from your private Kepler (29) installation and make it available to another user please do the following:

- Run `ITMv1` to make sure that your `$KEPLER` environment variable points to your private version of Kepler that contains the actor to be exported.
- Extract the actor from Kepler:

```
extract_actor actor_name
```

  This generates a file called `actor_name.tar` in the current directory.
- Make the generated tar file available to the other user(s).

13.11 How to import an actor into Kepler

If you like to import an actor from another user into your private Kepler installation please do the following:

- Get or locate the tar file that contains the actor. The file does not have to be in your own directory. Only read permission is needed.
- Run `ITMv1` to make sure that your `$KEPLER` environment variable points to your private version of Kepler where the actor shall be imported.

- `cd` to a directory where you have write permission and import the actor into Kepler:

```
import_actor [path/]actor_name
```

  The path is only necessary if the tar file that contains the actor is not located in the current directory.

- You can now run Kepler and the actor should be present.

13.12 How to remove an actor from Kepler

If you like to remove an actor from your private Kepler installation please do the following:

- Run `ITMv1` to make sure that your `$KEPLER` environment variable points to your version of Kepler from where the actor shall be removed.

- Remove the actor from Kepler:

```
rmactor actor_name
```

  The name of the actor should be as it appears in Kepler.

- You can now run Kepler and the actor should be absent.

13.13 Fortran Assertion Module

13.13.1 Overview: Assertions as a software development tool

The motivation for the ITM Fortran 90 assertion module is to enable and promote defensive programming [1181] in Fortran codes and ultimately help to reduce development time and improve software quality.

The basic premise of defensive programming is to trust nobody, especially not yourself. When the defensive programmer finds that while writing some code he is making implicit assumptions or takes something non-trivial for granted "because it just can't fail", he actively tests that what he assumes is really the case. Such a test is called an assertion [1182].

Assertions An assertion is a logical yes/no test placed in the code by the developer to state that a condition is assumed to be satisfied. A failed assertion means that something unexpected happened, and the only sensible option is to stop execution of the code. An assertion therefore serves to

- document assumptions made by the programmer and
- trigger early termination of the code when facing fatal errors to simplify debugging.

Assertions vs. error handling Assertions are not the same thing as error handling. Error handling addresses situations which are expected and are treated within the normal control flow of the program (although the error handling might just consist of stopping the program). Assertions on the other hand are not meant to be a part of the normal control flow of the code - they are just a development tool. After removing all assertions the code should still execute as intended. Assertions are in fact often automatically removed from production code to avoid any performance penalties they introduce.

13.13.2 The ITM Fortran assertion module

Many languages (e.g. Java, C, Python, Matlab,...) provide standard ways to test assertions. For Fortran this is not the case, but this can easily be fixed by substituting an implementation of the required functions. The ITM assertions module contained in itm_assert module provides such an implementation. The source code can be found here [1183], or just do

```
svn export https://gforge6.eufus.eu/svn/itmshared/branches/itm_assert
```

[1181] http://en.wikipedia.org/wiki/Defensive_programming
[1182] http://en.wikipedia.org/wiki/Assertion_%28computing%29
[1183] https://gforge6.eufus.eu/svn/itmshared/branches/itm_assert/

For integration into other projects use of the svn:externals mechanism is advised. The itm_types module located at

```
https://gforge6.eufus.eu/svn/itmshared/trunk/src/itm_types
```

is also required.

Basic usage

```
use itm_assert
...
call assert( logical_expression )
```

If logical_expression evaluates to false, the program is stopped with a generic error message. You can supply a specific fail message as an optional argument:

```
call assert( logical_expression, "Message written to stdout when the assertion fails" )
```

Fail message prefixes
To provide better diagnostic messages, a prefix for the assertion fail messages can be set:

```
call assertSetMsgPrefix( "subroutine foo" )
```

It is subsequently prepended to all assertion fail messages. To remove it again do

```
call assertSetMsgPrefix()
```

Delayed termination
Sometimes one does not want to stop immediately when encountering an error but at some later point in the code. This can be useful when assertions are grouped together to test a number of individual assumptions. Evaluating all of them might then reveal more details about the cause of the error.

Delayed stopping is supported in two ways. The first is to use optional arguments to the assert subroutine. This is of course also possible together with the optional assertion fail message.

```
call assert( expression1, doStop = .false. )
...
call assert( expression2, "Assertion fail message", doStop = .false. )
...
```

A failed assertion will then not cause a termination of the program. This can be triggered later by calling assertStopOnFailed:

```
call assertStopOnFailed()  ! will stop the code if a previous assertion failed
```

The second method to enable delayed termination is to temporarily change the default behaviour of the assertion module using the subroutine assertSetStopMode:

```
call assertSetStopMode( .false. )
...
call assert( expression1 )
...
call assert( expression2, "Assertion fail message" )
...
call assertStopOnFailed()
call assertSetStopMode() ! when called with no argument, restores the default behaviour (= immediate s
```

The subroutine assertSetStopMode() again takes an optional fail message

```
call assertStopOnFailed("Fail message if any previous assertion failed")
```

and its behaviour can again be modified to not terminate the program using an optional doStop argument

```
! don't stop, even if a previous assertion failed
call assertStopOnFailed( "Fail message if any previous assertion failed", doStop = .false. )
```

If assertStopOnFailed is called with doStop = .false. the program will not terminate even in the presence of failed assertions. Furthermore the counter for failed assertions is reset, i.e. further calls to assertStopOnFailed (even with doStop = .true.) will not terminate the program, unless another assertion failed in the meantime.

---

last update: 2019-01-31 by g2dpc

13.14 Doxygen generated web pages

It is possible to include doxygen generated web pages in the ITM web pages. Since these pages are automatically generated and can be large, it is probably better not to put them into subversion. Instead a directory can be created for you under

```
    $ITMDOXYGENROOT/[GROUP]/[PROJECT]
```

which can then be referenced by

```
    <ulink
    url="https://portal.eufus.eu/documentation/ITM/doxygen/[GROUP]/[PROJECT]/">
    SOME TEXT </ulink>
```

in your xml (making the appropriate substitutions for `[GROUP]` and `[PROJECT]`). You will then need to copy the html generated by doxygen into the above directory.

13.15 Guidelines for Code Documentation

UNDER CONSTRUCTION!

All released ITM codes should have two types of documentation:

- Detailed documentation to be used during code development and maintainace.
  The code provider can choose how to generate this documentation, but the ITM recommends to use Doxygen.
  For instructions on how to use Doxygen see
  - webpages on *Using Doxygen with Fortran* [1184]
  - slides on *Quick Introduction to Doxygen* [1185]

  Example: Doxygen documentation for RFOF [1186]
- Documentation that allow non experts to run the code. This documentation should include e.g. description of the input/output, the physics model used in the code and the limits of the applicability of the code.

[1184] https://www.efda-itm.eu/ITM/html/DoxygenFortran.html
[1185] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[1186] https://portal.eufus.eu/documentation/ITM/doxygen/imp5/rfof/docs/

13.16 Using Doxygen Documentation in Fortran codes

13.16.1 Overview

Doxygen is a tool that creates structured documentation out of the raw source code and comments embedded in it. In order to make this possible the comments have to be marked in a certain way, which is in general programming language dependent. This text describes how to write comments in Fortran code in order to enable Doxygen to make use of them.

13.16.2 Example fortran code using Doxygen

The following section shows how to use some of the documentation tags understood by Doxygen. The code example is taken from itm_assert.f90 [1187], with some more comments added.

```
module itm_assert

...

contains

!> A generic assertion, tests a given logical expression. (The short, concise description)

!> If it evaluates to .false.,
!> print the fail message and possibly stop execution. (A more detailed description)
!>
!> @param test The logical expression to test. (Explanation of individual arguments)
!> @param failmsg The message to print on fail. If omitted, a generic message is printed.
!> Can be modified with a prefix (see assertSetMsgPrefix)
!> @param doStop Controls whether to stop execution. If doStop .true.,
!> the program is stopped. If .false., only the fail message is printed
!> and bookkeeping is done for delayed stopping (see assertStopOnFailed).
!> If given, overrides the default behaviour  set by assertSetStopMode.

!> @see assertStopOnFailed (References to other routines)
!> @see assertSetStopMode
!> @see assertSetMsgPrefix

!> @author H.-J. Klingshirn (Author information)
!> @version 1.0 (Version information)

subroutine assert( test, failmsg, doStop )
  logical, intent(in) :: test
  character(*), intent(in), optional :: failmsg
  logical, intent(in), optional :: doStop

  ...
end subroutine assert

...
end module itm_assert
```

Some comments:

- Comments relevant for Doxygen have are started with !¿.
- The documentation for a subroutine or function is placed above it. The first paragraph is used as a short description in overview tables.
- The tags used in the Doxygen documentation blocks are called ”special commands”. They are started either with \ or @. An exhaustive list can be found here http://www.stack.nl/˜dimitri/doxygen/commands.html. Some relevant ones are:

[1187] https://gforge6.eufus.eu/svn/itmshared/branches/grid/f90/src/itm_assert/itm_assert.f90

- @author, @authors: Author name of a code section
- @version: Version number
- @warning: Some warning related to the following code
- @param: Documentation of on or more parameters. Documentation for parameters can also be placed right next to them:

```
subroutine assert( test, failmsg, doStop )
  logical, intent(in) :: test !> The logical expression to test.
  ...
```

- @bug
- @deprecated
- @details
- @param
- @return Documents a result for a subroutine
- @see Refers the reader to another entity, e.g. a subroutine
- @todo
- @warning

Some more comments:

- ”in-body” comments (comments starting with !¿ in the body of the routine) don’t seem to work for Fortran (they are falsely included in the documentation of the following routine)

---

last update: 2019-01-31 by g2dpc

---

last update: 2019-01-31 by g2dpc

14 Shot Journal

The ITM has generated a series of publically available data base entries, so called *shots* , which can be accessed on the ITM Gateway (29) via the UAL (Universal Access Layer) (29) .
Shots in private data bases are listed here as well, however, they are not validated. They may be used for testing purposes and code development though.

14.1 News

Date	News
2010-08-27	shots available for ASDEX Upgrade (14.3)
2010-07-22	Public shots added
2010-07-07	Shots added for IMP3

14.2 ITM Shots

Shots stored in the public data base of the ITM are generally validated.

14.2.1 JET shots

The shots can be accessed by setting

```
TOKAMAKNAME = jet
```

14.2.1.1 UAL Version 4.07a

The shots can be accessed by setting

```
UAL = 4.07a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
0	2	topinfo magdiag pfsystems vessel limiter ironmodel msediag	public	created by script MachineDescription_JET_240609.f90	Official JET machine description (29) RUN2

14.2.1.2 UAL Version 4.07b

The shots can be accessed by setting

```
UAL = 4.07b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
0	2	topinfo magdiag pfsystems vessel limiter ironmodel msediag	public	created by script MachineDescription_JET_240609.f90	Official JET machine description RUN2
51782	1	equilibrium coreprof coretransp neoclassic	public	ETS (V. Basiuk)	ETS current diffusion result (Kepler (29) workflow 2010), interpretative simulation of JET experiment 51782, kinetic profiles fitted from experiment. Use of HELENA21, NCLASS

14.2.1.3 UAL Version 4.07c

The shots can be accessed by setting

```
UAL = 4.07c
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
51782	1	equilibrium coreprof coretransp neoclassic	public	ETS (V. Basiuk)	ETS current diffusion result (Kepler workflow 2010), interpretative simulation of JET experiment 51782, kinetic profiles fitted from experiment. Use of HELENA21, NCLASS

14.2.2 TORE SUPRA shots

The shots can be accessed by setting

```
TOKAMAKNAME = tore_supra
```

14.2.2.1 UAL Version 4.07b

The shots can be accessed by setting

```
UAL = 4.07b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
0	3	topinfo magdiag pfsystems vessel limiter ironmodel msediag toroidfield interfdiag	public	created by script MachineDescription_TS_111209.f90	Official TORE SUPRA machine description RUN3
43952	1	equilibrium coreprof coretransp neoclassic	public	ETS (V. Basiuk)	ETS current diffusion result (Kepler workflow 2010), interpretative simulation of Tore Supra experiment 43952, from t=1.1s to t=2.9s, kinetic profiles fitted from experiment. Use of HELENA21, NCLASS

14.2.2.2 UAL Version 4.07c

The shots can be accessed by setting

```
UAL = 4.07c
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
43952	1	equilibrium coreprof coretransp neoclassic	public	ETS (V. Basiuk)	ETS current diffusion result (Kepler workflow 2010), interpretative simulation of Tore Supra experiment 43952, from t=1.1s to t=2.9s, kinetic profiles fitted from experiment. Use of HELENA21, NCLASS

14.2.3 TEST shots

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

14.2.3.1 UAL Version 4.07a

The shots can be accessed by setting

```
UAL = 4.07a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
4	1	topinfo equilibrium (1 time slice) coreprof (3 time slices) coretranp (2 time slices) neoclassic (2 time slices)	public	created by script createETSexample	Test example with a few dummy CPOs : contains augmented physical data used as input to the ETS prototype (July 2008). Basic input data for 4.07x Kepler demo workflows.
5	24	equilibrium coreprof ... (list incomplete)	public	ETS (D. Coster)	ETS output (2009) with a lot of data. This run had nrho=50, dt=0.01s and ran for 50 seconds.

14.2.3.2 UAL Version 4.07b

The shots can be accessed by setting

```
UAL = 4.07b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
4	1	topinfo equilibrium (1 time slice) coreprof (3 time slices) coretranp (2 time slices) neoclassic (2 time slices)	public	created by script createETSexample	Test example with a few dummy CPOs : contains augmented physical data used as input to the ETS prototype (July 2008). Basic input data for 4.07x Kepler demo workflows.

14.2.3.3 UAL Version 4.07c

The shots can be accessed by setting

```
UAL = 4.07c
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
4	1	topinfo equilibrium (1 time slice) coreprof (3 time slices) coretranp (2 time slices) neoclassic (2 time slices)	public	created by script createETSexample	Test example with a few dummy CPOs : contains augmented physical data used as input to the ETS prototype (July 2008). Basic input data for 4.07x Kepler demo workflows.

---

last update: 2010-08-24 by konz

14.3 IMP12 Shots

Shots stored in the private data base of IMP12 members are generally not validated. Please do not publish without contacting the data provider.

14.3.1 ITER shots

The shots can be accessed by setting

```
TOKAMAKNAME = iter
```

14.3.1.1 UAL Version 4.08b

The shots can be accessed by setting

```
UAL = 4.08b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
1	2	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=0.0s+11s=11.0s).
	3	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the entire pressure profile between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=0.0s+5s=5.0s).
	4	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the core pressure profile only between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 0.0s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=0.0s+5s=5.0s).

14.3.2 JET shots

The shots can be accessed by setting

```
TOKAMAKNAME = jet
```

14.3.2.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
78092	1	magdiag pfsystems toroidfield limiter ironmodel msediag	konz	exp2itm	time trace of experimental signals for equilibrium reconstruction
	2	equilibrium	konz	equalslice	free boundary equilibrium at t=50s
	3	equilibrium	konz	equal_helena	fixed boundary equilibrium up to separatrix at t=50s
	4	mhd	konz	equal_helena_ilsa	linear MHD stability for n=-3..-5 at t=50s (stable)

14.3.3 ASDEX Upgrade shots

The shots can be accessed by setting

```
TOKAMAKNAME = aug
```

14.3.3.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
20116	2	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=2.25s with 5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	3	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	4	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=5.09s with 10 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	5	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=2.25s with 5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	6	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	7	equilibrium mhd	konz	progen_helena_ilsa_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=5.09s with 10 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound} and linear MHD stability spectrum (peeling-ballooning modes)
	8	equilibrium	konz	helena_aug	fixed boundary equilibrium (same as run 2)
	9	mhd	konz	ilsa_aug	linear MHD stability analysis for run 8 (toroidal mode number n = 1 - 15), peeling-ballooning mode

14.3.3.2 UAL Version 4.08b

The shots can be accessed by setting

```
UAL = 4.08b
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
20116	2	equilibrium	konz	progen_helena_aug	**improved H-mode** (type-I ELMs) $I_p = 1\text{MA}$, $n_e = 6.25 \cdot 10^{19} m^{-3}$, $B_t = -2.392T$, $q_{95} = 4.522$ at t=3.59s with 7.5 MW NBI and 3.6 MW ICRH fixed boundary equilibrium cut at 99.3% of ψ_{bound}
	3	equilibrium	konz	jalpha_helena	j- α modified equilibrium based on run 2 (scale_p=1.4, scale_j=1.5)
	6	mhd	konz	ilsa_aug	linear MHD stability analysis for run 2 (toroidal mode number n = 1 - 15), peeling-ballooning mode

Shot	Run	CPOs	user	generated with	description
	10	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=3.59s+11s=14.59s).
	11	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal width between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=3.59s+11s=14.59s).
	12	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the entire pressure profile between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=3.59s+5s=8.59s).
	13	equilibrium mhd	konz	euforia2ual_j_alpha	β_N scan through modification of the core pressure profile only between 50% and 150% of the reference equilibrium from run 2 together with linear MHD stability analysis The scan is done in 10% steps. The 11 different cases are stored in time slices starting from 3.59s with 1.0s steps where scale_beta=0.5 is the first entry (e.g., scale_beta=1.0 is stored in time slice t=3.59s+5s=8.59s).
23223	3	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal height between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 5.325s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=5.325s+11s=16.325s).
	4	equilibrium mhd	konz	euforia2ual_j_alpha	j- α scan through modification of the pedestal width between 50% and 150% of the reference equilibrium together with linear MHD stability analysis The scan is done in 10% steps. The 121 different cases are stored in time slices starting from 5.325s with 1.0s steps where scale_p=0.5 and scale_j=0.5 is the first entry and scale_j is looped over faster (e.g., scale_p=0.6, scale_j=0.5 is stored in time slice t=5.325s+11s=16.325s).

14.3.4 TEST shots

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

14.3.4.1 UAL Version 4.08a

The shots can be accessed by setting

```
UAL = 4.08a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs, the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
1	2	equilibrium	konz	progen_helena_analytic	simple circular ballooning unstable equilibrium, high resolution fixed boundary equilibrium in straight field line coordinates
	3	equilibrium mhd	konz	progen_helena_ilsa_analytic	same as run 2
	4	equilibrium	konz	jalpha_helena_analytic	j- α modified equilibrium based on run 2 (p_modulator%c_2=1.1, j_modulator%c_2=1.5)
	5	equilibrium mhd	konz	jalpha_helena_ilsa_analytic	same as run 4

last update: 2011-07-12 by konz

14.4 IMP3 DATA (shots available from IMP3 simulations)

Shots stored in the private data base of IMP3 members are generally not validated. Please do not publish without contacting the data provider.

14.4.1 TCV shots

Following simulations are available for TCV machine:

14.4.1.1 TCV 4.10a shots

Following simulations are available for TCV machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = *tcv* and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/tcv/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/TCV $(MDSPLUS_TREE_B
```

14.4.1.1.1 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description

14.4.1.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
38012	*2*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/SPIDER/BGB/GAUSS	ETS predictive ad hoc run [time: ***0.1-1.1*** ; composition: ***e,D*** ; ip= ***0.65MA*** Bt= ***1.5T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [0.6 MW to el]*** ; Transport: ***BGB*** ; Impurity: ***OFF***]
38012	*3*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BGB/GAUSS/IMPURITY	ETS predictive ad hoc run [time: ***0.1-1.1*** ; composition: ***e,D,C*** ; ip= ***0.65MA*** Bt= ***1.5T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [0.6 MW to el]*** ; Transport: ***BGB*** ; Impurity: ***ON***]

14.4.2 MAST shots

Following simulations are available for MAST machine

14.4.2.1 MAST 4.10a shots

Following simulations are available for MAST machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***mast*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/mast/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/MAST $(MDSPLUS_TREE_
```

14.4.2.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [1188]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
26864	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***40.153-40.428*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma
28282	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***40.203-40.40.353*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma

14.4.2.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

[1188] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

Shot	Run	CPOs	user	generated with	description
26864	2	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE	ETS interpretative shot (single slice) [time: ***40.27*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma
28282	2	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE	ETS interpretative shot (single slice) [time: ***40.27*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma

14.4.2.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
26864	3	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE/BGB	ETS predictive run [time: ***40.27-40.32*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; upward shifted plasma; predictive equations: ***Jpar,Te,Ti*** ; ***ni*** evolution from input TRANSP shot; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]
28282	3	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	ETS/CHEASE/BGB	ETS predictive run [time: ***40.27-40.32*** ; composition: ***e,D,C,H(fast)*** ; ip= ***0.8MA*** Bt= ***0.48T,*** ; downward shifted plasma; predictive equations: ***Jpar,Te,Ti*** ; ***ni*** evolution from input TRANSP shot; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]

14.4.3 AUG shots

Following simulations are available for ASDEX-Upgrade machine:

14.4.3.1 AUG 4.10a shots

Following simulations are available for AUG machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***aug*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/aug/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/AUG $(MDSPLUS_TREE_B
```

14.4.3.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [1189]

[1189] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
28906	*1*	equilibrium coreprof coretransp coresource coreimpur coreneutrals	denka	TRANSP	ETS input shot [time: ***41.001-45.0*** ; composition: ***e,D,C*** ; ip= ***0.508MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Ti,Te,nz*** ; only fully-stripped C is present]

14.4.3.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
28906	*4*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE	ETS interpretative run [time: ***42.0-43.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF*** ; Impurity: ***INTERPRETATIVE***]
29072	*3*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative ad hoc run [time: ***0.1-1.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.49T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]

14.4.3.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
28906	*5*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***INTERPRETATIVE***]
28906	*6*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BgB/IMPURITY	ETS predictive run [time: ***43.0-44.0*** ; composition: ***e,D,C*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti,nz*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***ON***]
28906	*7*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***OFF***]
28906	*8*	equilibrium coreprof coresource coretransp	denka	ETS/SPIDER/BgB	ETS predictive run [time: ***42.0-43.0*** ; composition: ***e,D*** ; ip= ***0.51MA*** Bt= ***2.48T,*** ; predictive equations: ***Jpar,ni,Te,Ti*** ; sources: ***from DataBase*** ; Transport: ***BgB*** ; Impurity: ***OFF***]

14.4.3.2 AUG 4.09a shots

Following simulations are available for ASDEX-Upgrade machine in UAL 4.09a:

The shots can be accessed by setting

```
TOKAMAKNAME = aug
%
\newline
%
UAL = 4.09a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
17151	0	equilibrium limiter	coster	aug_eq.py	equilibrium and limiter derived from AUG shotfile using aug_eq.py
17151	13	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=9
17151	14	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=17
17151	15	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=33
17151	16	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=65
17151	17	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=129
17151	18	equilibrium coreprof coresource coretransp	coster	ETS with HELENA	HELENA with NP=257
17151	400 - 407	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D)
17151	500 - 505	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=9
17151	700 - 702	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=17
17151	800 - 802	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with HELENA	ETS runs for core-edge coupling (D+He + C), NP=33
17151	20400 - 20407	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D)
17151	20500 - 20505	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)
17151	20700 - 20702	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)
17151	20800 - 20802	edge	coster	SOLPS	end states of the SOLPS runs for core-edge coupling (D+C+He)

last update: 2013-07-31 by denka

14.4.4 JET shots

Following simulations are available for JET machine:

14.4.4.1 JET 4.10a shots

Following simulations are available for JET machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***jet*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/jet/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/JET $(MDSPLUS_TREE_B
```

14.4.4.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [1190]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
71827	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
77922	*2*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
81856	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles
82794	*1*	equilibrium coreprof	denka	JETTO/EFIT	ETS input shot used to test inputs from experimental profiles

14.4.4.1.2 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
77922	*4*	equilibrium coreprof coresource coretransp	denka	ETS/EMEQ	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
77922	*5*	equilibrium coreprof coresource coretransp	denka	ETS/SPIDER	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
77922	*6*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative run [time: ***48.01-49.01*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]

[1190] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

14.4.4.1.3 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
76791	*11*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CHEASE/BGB/NTMETS	ETS run with NTM [time: ***49.9-50.9*** ; composition: ***e,D*** ; ip= ***1.6MA*** Bt= ***2.0T,*** ; predictive equations: ***Jpar,ni,Ti,Te*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG+MHD***]
77922	*12*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CHEASE/GEM/BBNBI/NEUTRALS	ETS run with GEM [time: ***48.04-48.22*** ; composition: ***e,D*** ; ip= ***1,7MA*** Bt= ***2.3T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0*** ; sources: ***NBI[10MW], Neutrals[2*10 1/s]*** ; Transport: ***GEM(256 cores)+BG***]
81856	*4*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CEASE/BGB/BBNBI /IMPURITY/NEUTRALS	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG***]
81856	*5*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/CEASE/BGB/BBNBI /IMPURITY/NEUTRALS Mgnetic axis: Zmag= ***+15 cm***	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***NBI[10MW]*** ; Transport: ***BGB+BG***]
81856	*6*	equilibrium coreprof coresource coretransp coreimpur coreneutrals	denka	ETS/SPIDER/BGB/Gauss /IMPURITY/NEUTRALS Mgnetic axis: Zmag= ***+15 cm***	ETS run with impurity [time: ***52.2-53.2*** ; composition: ***e,D,Be,W*** ; ip= ***2.45MA*** Bt= ***2.56T,*** ; predictive equations: ***Jpar,ni,Ti,Te,n0,nZ*** ; sources: ***Gauss[10MW]*** ; Transport: ***BGB+BG***]

last update: 2019-01-31 by g2dpc

14.4.4.2 JET 4.09a shots

Following simulations are available for JET machine in UAL 4.09a:

The shots can be accessed by setting

```
TOKAMAKNAME = jet
%
\newline
%
UAL = 4.09a
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
71827	21	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi equation only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	22	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter

Shot	Run	CPOs	user	generated with	description
71827	23	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with EMEQ	Start from a JET case (with C as an impurity, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter

last update: 2013-06-27 by dpc

14.4.4.3 JET 4.08b shots

Following simulations are available for JET machine in UAL 4.08b:

The shots can be accessed by setting

```
TOKAMAKNAME = jet
%
\newline
%
UAL = 4.08b
```

Shot	Run	CPOs	user	generated with	description
71827	21	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi equation only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	22	equilibrium coreprof coresource coretransp	coster	ETS with EMEQ	Start from a JET case (no impurities, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
71827	23	equilibrium coreprof coresource coretransp coreimpur	coster	ETS with EMEQ	Start from a JET case (with C as an impurity, psi and density equations only); PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter
78092	10003	equilibrium	coster	test_equilibrium_augmenter	PSI, BR, BZ, BPHI (R,Z) from equilibrium_augmenter added to konz/78092/3

last update: 2014-11-12 by dpc

last update: 2013-06-27 by denka

14.4.5 ITER shots

Following simulations are available for ITER machine:

14.4.5.1 ITER 4.10a shots

Following simulations are available for ITER machine in UAL 4.10a:

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***iter*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/iter/4.10a/mdsplus/0/euitm_
\textit{\textbf{ShotRun
```

```
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/ITER $(MDSPLUS_TREE_
```

14.4.5.1.1 ETS interpretative runs

These are ETS simulations, in which the evolution of the main plasma profiles was disabled (usually only EQUILIBRIUM+Current equation were simulated).
Nonetheless, these runs should provide the complete consistent set of data (although some signals might be filled with 0.0) and might be very convinient for testing purposes. Especially, if you need steady state test bed shot.

Shot	Run	CPOs	user	generated with	description
35441	5	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE	ETS interpretative run [time: ***1.0-2.0*** ; composition: ***e,D,T,He*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF***]
35441	6	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE	ETS interpretative run [time: ***0.1-1.0*** ; composition: ***e,D,T,He,Be,Ne,W*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar*** ; sources: ***OFF*** ; Transport: ***OFF*** ; Impurity: ***coronal***]

14.4.5.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
35441	*8*	equilibrium coreprof coresource coretransp coreimpur	denka	ETS/CHEASE/BGB/BBNBI	ETS predictive run [time: ***1.0-2.0*** ; composition: ***e,D,T,He,Be,Ne,W*** ; ip= ***15MA*** Bt= ***6.2T,*** ; predictive equations: ***Jpar,ni,Ti,Te*** ; sources: ***NBI{60MW]*** ; Transport: ***BGB*** ; Impurity: ***coronal***]

---

last update: 2019-01-31 by g2dpc

---

last update: 2013-07-19 by denka

14.4.6 DEMO1 shots

There are following shots available for DEMO1 [puls] machine
!!! PLEASE note that these date are not the official release of DEMO design. It is just a test ITM copy.

14.4.6.1 DEMO1 4.10a shots

Following simulations are available for DEMO1 machine in UAL 4.10a:

!!! DATA are based on the ITM test release and can not be used for the scientific publications about DEMO

The shots can be accessed from the private data bases of IMP3 contributors by selecting the TOKAMAKNAME = ***demo1*** and the UAL version = ***4.10a***

There are two ways to copy the data to your local data base:
You can copy them directly from the data provider data base as it is mentioned in the table:

```
cp ~
\textit{\textbf{user
}}/public/itmdb/itm_tree/demo1/4.10a/mdsplus/0/euitm_
```

```
\textit{\textbf{ShotRun
}}.* $MDSPLUS_TREE_BASE_0/.
```

You can check out the data from svn:

```
svn co --force https://gforge6.eufus.eu/svn/keplerworkflows/trunk/4.10a/imp3/DATA/DEMO1 $(MDSPLUS_TREE
```

14.4.6.1.1 ETS input shots

These are copies of shots, generated originaly with other codes or containing the experimental data, which were migrated to the ITM-Gateway machine with the tools like Exp2ITM [1191]
These are used to start the ETS run and, therefore, might not provide the comlete set of consistent data.

Shot	Run	CPOs	user	generated with	description
1	*1*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; plasma boundary is prescribed from earlier FBE simulations / very shaped cross-section - difficult for equilibrium solvers to work with]
1	*2*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; plasma boundary is defined analiticaly]
1	*11*	equilibrium coreprof	denka	configured manually	ETS input shot, ***peaked density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; slightly smoothed boundary compared to the run 1]
2	*11*	equilibrium coreprof	denka	configured manually	ETS input shot, ***flat density profile*** [time: ***0.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; slightly smoothed boundary compared to the run 1]

14.4.6.1.2 ETS predictive runs

These are ETS simulations, in which some physics study was done.
Short description of the run configuration is available in the table below. Nonetheless, we strongly advise you to contact the run author for the details.

Shot	Run	CPOs	user	generated with	description
1	*3*	equilibrium coreprof coresource coretransp	denka	ETS/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / shaped boundary*** [time: ***0.1-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*4*	equilibrium coreprof coresource coretransp	denka	ETS/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / analytical boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*12*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive ad hoc run / ***peaked density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te*** ; sources: ***GAUSS [10MW to el / 20MW to D /20 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***OFF***]
1	*13*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive run / ***peaked density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T,Ar,W*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [26MW to el / 192MW to D / 192 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***ON*** ; radiation fraction: ***50%*** ; current drive: ***35%*** ; Zeff: ***3.0***]
2	*12*	equilibrium coreprof coresource coretransp	denka	ETS/CHEASE/BGB/ETB/GAUSS	ETS predictive run / ***flat density profile / smoothed boundary*** [time: ***0.0-1.0*** ; composition: ***e,D,T,Ar,W*** ; ip= ***16MA*** Bt= ***6.791T,*** ; predictive equations: ***Jpar,Ti,Te,nz*** ; sources: ***GAUSS [26MW to el / 192MW to D / 192 MW to T]*** ; Transport: ***BGB+ETB(at 0.97)*** ; Impurity: ***ON*** ; radiation fraction: ***50%*** ; current drive: ***35%*** ; Zeff: ***3.0***]

[1191] https://www.eufus.eu/documentation/ITM/html/isip_databases.html#isip_databases_2

14.4.7 TEST shots

Following simulations are available for TEST machine:
!!! There is no clear defenition of what the TEST machine is !!!

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last update: 2013-06-27 by dpc

14.5 IMP5 Shots

Below are lists of shots available in the imp5-shot database; found in the public directory of the user wwwimp5.

```
~wwwimp5/public/itmdb/itm_trees/<machine>/<UAL>/mdsplus/0/
```

where <machine> is the name of the machine, e.g. "test", "jet", or "asdex" and <UAL> is the version number of the UAL, e.g. "4.09a" or "4.10a".

14.5.1 UAL Version 4.09a

The shots can be accessed by setting

```
UAL = 4.09a
```

14.5.1.1 Machine: TEST

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the database, and a short description.

Shot	Run	CPOs	user	generated with	description
5	67	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
	1067	equilibrium coreprof antennas waves	Figini / Coster	Gray processing of machine=test/shot=5/run=67 from ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.

14.5.1.2 Machine: ASDEX

The shots can be accessed by setting

```
TOKAMAKNAME = aug
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the database, and a short description.

Shot	Run	CPOs	user	generated with	description
20116	502	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ASDEX plasma (possibly shot 20116, run 2 documented in the IMP12 page, reprocessed using the ETS).

14.5.1.3 Machine: JET

The shots can be accessed by setting

```
TOKAMAKNAME = jet
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
10	6	equilibrium coreprof...	huynh?		JET shot 77922 using nclass, bgb, equilibre chease, and transport solver equation in te, ti et psi. The shot starts from 48.488s to 57.2283s. Default input to the CEA-ETS workflow.
77922	1	equilibrium coreprof...	kalupin?		JET shot 77922. Taken from the imp3/ets repository 22 November 2011. Default input to the IPP/IST-ETS workflow.
71827	1	equilibrium coreprof...	kalupin?		JET shot 71827. Taken from the imp3/ets repository 22 November 2011.

14.5.2 UAL Version 4.10a

The shots can be accessed by setting

```
UAL = 4.10a
```

14.5.2.1 Machine: TEST

The shots can be accessed by setting

```
TOKAMAKNAME = test
```

The following table lists the shot by shot number and run number together with the list of stored CPOs (29) , the user name of the data base, and a short description.

Shot	Run	CPOs	user	generated with	description
5	67	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
	68	equilibrium coreprof	Coster	ETS fortran workflow (with equilibrium from the eqaugmenter)	ITER sized test plasma.
77299	12	equilibrium coreprof ??	Kalupin	ETS-A workflow	Unknown.

---

last update: 2013-03-29 by tjohnson

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last update: 2013-03-14 by dpc

15 ITM Tools

This page collects tools available on the ITM platform

- Libraries on the ITM platform (15.1)
- (Numerical) libraries & tools (15.2) Libraries and tools for code development.
- ITM Database tools (15.3) Tools for working with ITM databases (like your personal database where the CPOs are stored)
- Python on the ITM platform (15.4) Python-specific libraries & tools for the ITM

15.1 Libraries

The ITM provides a number of libraries specific to ITM-related concepts and tasks. Furthermore a number of standard libraries are available for code development. This page gives an overview of what's available and how to use it.

15.1.1 ITM Libraries

Libraries developed by the ITM are made available on the ITM platform in standardized directory layout. The root for this directory hierarchy is currently placed at **$ITMLIBDIR** . However, please do not hard-code this path into your Makefiles and build systems. An environment variable **ITMLIBDIR** holding this value is automatically defined in the user environment.

The library files are organized as follows:

- $ITMLIBDIR ($ITMLIBDIR)
  - Library name (e.g. itmconstants)
    - Data version (e.g. 4.10a)
      - **include** - compiler-independent include files (e.g. C header files)
      - **lib**
      - **OBJECTCODE (see below)** - compiler-dependent files (*.a, *.so library archive files (e.g. libitmggd.a), *.mod Fortran module files (e.g. itm_types.mod))
      - **pythonX.Y** - Python modules for Python version X.Y (see below)
      - compiler-independent library files (e.g. libUALLowLevel.a)
      - **libdebug** - same as lib, but with debug symbols and no optimization

In the hierarchy, different compilers and compiler versions are distinguished with an OBJECTCODE identifier. Currently, the following values are used:

- **amd64_pgi_10** - Portland Group, Inc. compilers (C, C++, Fortran), Release 10
- **amd64_g95_0.92** - g95 compiler, version 0.92
- **amd64_gfortran_4.7** - gfortran compiler, version 4.7

  However, not all libraries are built for all compilers depending on compatibility.

The full draft for the ITM standard directory layout is described in this document: ITM standard directory layout [1192].

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last update: 2013-09-12 by dpc

15.2 Numerical Tools

Besides a long list of physics and infrastructure modules, the ITM-TF also provides a variety of numerical tools like interpolation/extrapolation routines, grid generation routines, and coordinate system transformations. Most of these tools are new developments which are currently summarized under task WP10-ITM-IMP12-ACT15 (6.2.1.15).

(UNDER CONSTRUCTION)

List of numerical tools, independent of the ITM datastructures

- **interpos** (svn [1193], gforge [1194], external webpages [1195])

  Provide an easy, flexible and precise routine for interpolation and calculation of derivatives and integrals on a new mesh. Allows for extrapolation as well. Includes smoothing based on cubic spline with tension, minimizing second derivatives.

- **dierckx** (svn [1196], gforge [1197], external webpages [1198])

  DIERCKX is a package of Fortran subroutines for calculating smoothing splines for various kinds of data and geometries, with automatic knot selection `[Paul Dierckx, Curve and Surface Fitting with Splines, Oxford University Press, 1993]` .

[1192] https://www.efda-itm.eu/ITM/imports/isip/public/ITM_Library_Directory_Layout.pdf
[1193] https://gforge6.eufus.eu/svn/interpos/
[1194] https://gforge6.eufus.eu/project/interpos/
[1195] http://crppwww.epfl.ch/~sauter/interpos/
[1196] https://gforge6.eufus.eu/svn/ets/trunk/ETS/src/dierckx/
[1197] https://gforge6.eufus.eu/project/ets/trunk/ETS/
[1198] http://www.netlib.org/dierckx/

- **l3interp** (svn [1199], gforge [1200])

  1D interpolation 3rd order Lagrange interpolation library, including derivatives.

- **bsplines** (gforge [1201])

  Generalized splines of any order on irregular grids for interpolation and solving PDEs with Finite Element Methods

- **Trimesh** (svn [1202], gforge [1203])

  (Under construction). Reads a scalar field from the equilibrium data and generates a field-aligned mesh using Delaunay triangulation.

List of numerical tools that dependens of the ITM datastructures

- **ITM toolbox** (svn [1204], gforge [1205])

  Including check_equilibrium, cubint and equilibrium_augmenter (also wrapper to l3interp).

- **grid tools** (svn [1206], gforge [1207])

  Tools for handling the grid-cpo.

- **FIFE** (svn [1208], gforge [1209])

  FIeld and Flux Evaluation, using data from CPO equilibrium, also extrapolating into vacuum region.

- **equilibriumfit** (svn [1210], gforge [1211])

  Fill in missing information into equilibrium CPO.

List of generic computational tools

- **CPO tools** (svn [1212])

  Library with various tools for handling CPO: copy_structures, deallocate_structures, diff_structures, euitm_printcpo, is_set_structures, printcpo, printcpoargs, read_structures, size_of_structures, write_structures error_analysis

- **Fortran Assertion Module** (ITM webpages [1213], svn [1214])

  Handling assertion and error handling. E.g. for asserting the validity of input.

- **Code parameters** (ITM webpages [1215], gforge [1216])

  An F95 library for parsing XML coded code parameters (to help incooparating xml-code parameters into Fortran codes).

- **muxdemux** (gforge [1217])

  Kepler actors used to extract/import a single signal (or a set of signals) from/into a CPO

- **visit_visu** (gforge [1218])

  Visualization of CPO fields through a VisIt plug-in

[1199] https://gforge6.eufus.eu/svn/itmshared/branches/tools/src/l3interp.f90
[1200] https://gforge6.eufus.eu/project/itmshared/
[1201] https://gforge6.eufus.eu/project/bsplines/
[1202] https://gforge6.eufus.eu/svn/trimesh/
[1203] https://gforge6.eufus.eu/project/trimesh/
[1204] https://gforge6.eufus.eu/svn/itmshared/branches/tools/itm_toolbox.f90
[1205] https://gforge6.eufus.eu/project/itmshared/
[1206] https://gforge6.eufus.eu/svn/itmshared/branches/grid/
[1207] https://gforge6.eufus.eu/project/itmshared/
[1208] https://gforge6.eufus.eu/svn/fife/
[1209] https://gforge6.eufus.eu/project/fife/
[1210] https://gforge6.eufus.eu/svn/numerical_tools/branches/equilibriumfit/
[1211] https://gforge6.eufus.eu/project/numerical_tools/
[1212] https://gforge6.eufus.eu/svn/itmshared/branches/tools/
[1213] https://www.eufus.eu/documentation/ITM/html/F90AssertionsModule.html#F90AssertionsModule
[1214] https://gforge6.eufus.eu/svn/itmshared/branches/grid/f90/src/itm_assert/
[1215] https://www.eufus.eu/documentation/ITM/html/itm_code_parameters.html
[1216] https://gforge6.eufus.eu/project/xmllib/
[1217] https://gforge6.eufus.eu/project/muxdemux/
[1218] https://gforge6.eufus.eu/project/visit_visu/

15.2.1 Python on the ITM platform

15.2.1.1 Python installation: overview

The ITM platform includes a Python installation, with

- a number of standard libraries for scientific computing (NumPy, SciPy, matplotlib, ...)
- a UAL interface for reading and writing CPOs from/to the ITM database
- ITM-specific libraries for handling CPOs, the general grid description and CPO-specific visualization tools

The following Python versions are available: 2.5.1, 2.6.7.

The current default Python version is 2.5.1.

15.2.1.2 Documentation, tutorials and training material

To be added...

15.2.1.3 Switching between Python versions

The "select_python" command is provided to allow users to quickly switch between different Python versions. It takes care of correctly setting up the Python environment, including all UAL data version specific Python components (modules, scripts, ...).

Usage:

```
source $ITMSCRIPTDIR/select_python [PYTHONVERSION]
```

or, using an alias provided in the default ITM environment

```
set_python [PYTHONVERSION]
```

When running the command from a login script (e.g. your ~/.cshrc file), the following is recommended:

```
source $ITMSCRIPTDIR/select_python [PYTHONVERSION]  > /dev/null
```

- PYTHONVERSION can be one of "2.5", "2.6" or "default" (the current default is 2.5).
- If it is ommitted, any previously selected Python version is kept. If no Python version was previously selected, the default version is selected.
- If an ITM data version was selected (by running the ITMv1 script), the Python environment is set up to include UAL-specific components. If no data version is currently selected, the UAL-specific components are not included in the environment.

Example: to automatically switch to Python 2.6 when logging in, add the following line in your ~/.cshrc file:

```
source $ITMSCRIPTDIR/select_python 2.6 > /dev/null
```

Known issues when switching between Python versions

- Not all scripts and packages are available for all versions. Be aware of this when switching between versions.
- **ipython** ipython keeps a local database to store settings in your home directory at ~/.ipython, the format of which might be incompatible between versions. If you get error messages when starting ipython, move your ipython directory (mv ~/.ipython ~/.ipython_old) or delete it.

- **matplotlib**
  - matplotlib keeps a local database to store settings in your home directory at ~/.matplotlib, the format of which might be incompatible between versions. If you get error messages when running a script that uses matplotlib, move your matplotlib directory (mv ~/.matplotlib ~/.matplotlib_old) or delete it.
  - Different versions of matplotlib are installed for the different Python versions. This can lead to some plotting scripts not working properly. Typically matplotlib will give warnings when deprecated functions are used.

Details select_python modifies the environment variables PATH, PYTHONPATH, LD_LIBRARY_PATH and PYTHONVERSION. PYTHONVERSION is set to the currently selected version.

15.2.1.4 Development tools

- **Eclipse & PyDev plugin** A fully integrated IDE, including a source debugger. It's available on the gateway ('eclipse' command).

  Documentation: PyDev Website [1219], PyDev Manual [1220]

15.2.1.5 Available Python modules

- **SciPy** Documentation [1221] (pick the right version)

  Python 2.5: version 0.7.0

  Python 2.6: version 0.10.0
- **NumPy** Documentation [1222] (pick the right version)

  Python 2.5: version 1.2.1

  Python 2.6: version 1.6.1
- **matplotlib** Documentation (for the latest version) [1223] If you need the documentation for 0.99.3, please contact ISIP.

  Python 2.5: version 0.99.3

  Python 2.6: version 1.2.x
- **ipython** Documentation [1224] (pick the right version)

  Python 2.5: version 0.8.4

  Python 2.6: version 0.12

15.2.1.6 Installation details

Directory layout

- **select_python script** $ITMSCRIPTDIR/select_python
- **Python installations** $SWITMDIR/python/python2.5.1
  $SWITMDIR/python/python2.6.7

[1219] http://pydev.org
[1220] http://pydev.org/manual.html
[1221] http://docs.scipy.org/doc/
[1222] http://docs.scipy.org/doc/
[1223] http://matplotlib.sourceforge.net/contents.html#
[1224] http://ipython.org/documentation.html

- **Standard packages** (NumPy, SciPy, matplotlib, ...)
  /afs/.efda-itm.eu/project/switm/python/python_pk.2.5.1
  $SWITMDIR/python/python_pk.2.6/lib/python2.6/site-packages
- **ITM-specific packages** (UAL, ...)
  - **Python UAL interface** $SWITMDIR/ual/$DATAVERSION/python_pk.$PYTHONVERSION
  - **ITM Visualization Library** $SWITMDIR/itmvis/$DATAVERSION/python_pk.$PYTHONVERSION

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last update: 2013-09-12 by dpc

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last update: 2019-01-31 by g2dpc

15.3 ITM Database tools

15.3.1 ISIP supported tools

- **cpocopy** - copy CPOs from one database to another
- **cpodiff** - compare CPOs

15.3.2 Tools maintained by IMPs

- **cpotimes**
- **printcpo**

15.3.3 Available tools as of March 2012

plotallcpos (O. Sauter)

- Source is in ~sauter/public/matlab/. Run with

```
~sauter/public/matlab/plotallcpo
```

- Features:
  - GUI
  - display available CPOs for the shot/run
  - display all scalars for a CPO
  - select one or more CPOs for plotting
  - create 1d/2d plots for arbitrary combinations of CPO fields

15.3.4 list_shots

List shots/runs in a database.
Usage:

```
list_shots [-u username -t tokamakname -v dataversion -b backend]
```

Sample usage:

```
user@enea143 ~>list_shots
17151 0,1,2,3
25528 0
```

Existing tools with this functionality Edmondo Giovannozzi:

- ~egiovan/etc/listshot
  First version of a listshot script: takes data version and tokamak name as parameters. Sample uses:

  ```
  listshot test
  ```

  Lists all
- ~egiovan/etc/listshotv2
  Second version with more abstraction.

15.3.5 list_times

List time slices stored for a given shot/run

Usage:

```
list_times [-u username -t tokamakname -v dataversion -b backend] shot,run
```

Sample usage:

```
user@enea143 ~>list_times 17151,3
0.0 0.1 0.2
user@enea143 ~>list_times 99999,0
user@enea143 ~>
```

---

last update: 2013-06-27 by dpc

15.4 Python on the ITM platform

15.4.1 Python installation: overview

The ITM platform includes a Python installation, with

- a number of standard libraries for scientific computing (NumPy, SciPy, matplotlib, ...)
- a UAL interface for reading and writing CPOs from/to the ITM database
- ITM-specific libraries for handling CPOs, the general grid description and CPO-specific visualization tools

The following Python versions are available: 2.5.1, 2.6.7.

The current default Python version is 2.5.1.

15.4.2 Documentation, tutorials and training material

To be added...

15.4.3 Switching between Python versions

The "select_python" command is provided to allow users to quickly switch between different Python versions. It takes care of correctly setting up the Python environment, including all UAL data version specific Python components (modules, scripts, ...).

Usage:

```
source $ITMSCRIPTDIR/select_python [PYTHONVERSION]
```

or, using an alias provided in the default ITM environment

```
set_python [PYTHONVERSION]
```

When running the command from a login script (e.g. your ~/.cshrc file), the following is recommended:

```
source $ITMSCRIPTDIR/select_python [PYTHONVERSION]  > /dev/null
```

- PYTHONVERSION can be one of "2.5", "2.6" or "default" (the current default is 2.5).
- If it is ommitted, any previously selected Python version is kept. If no Python version was previously selected, the default version is selected.
- If an ITM data version was selected (by running the ITMv1 script), the Python environment is set up to include UAL-specific components. If no data version is currently selected, the UAL-specific components are not included in the environment.

Example: to automatically switch to Python 2.6 when logging in, add the following line in your ~/.cshrc file:

```
source $ITMSCRIPTDIR/select_python 2.6 > /dev/null
```

Known issues when switching between Python versions

- Not all scripts and packages are available for all versions. Be aware of this when switching between versions.
- **ipython** ipython keeps a local database to store settings in your home directory at ~/.ipython, the format of which might be incompatible between versions. If you get error messages when starting ipython, move your ipython directory (mv ~/.ipython ~/.ipython_old) or delete it.
- **matplotlib**
  - matplotlib keeps a local database to store settings in your home directory at ~/.matplotlib, the format of which might be incompatible between versions. If you get error messages when running a script that uses matplotlib, move your matplotlib directory (mv ~/.matplotlib ~/.matplotlib_old) or delete it.
  - Different versions of matplotlib are installed for the different Python versions. This can lead to some plotting scripts not working properly. Typically matplotlib will give warnings when deprecated functions are used.

Details select_python modifies the environment variables PATH, PYTHONPATH, LD_LIBRARY_PATH and PYTHONVERSION. PYTHONVERSION is set to the currently selected version.

15.4.4 Development tools

- **Eclipse & PyDev plugin** A fully integrated IDE, including a source debugger. It's available on the gateway ('eclipse' command).

  Documentation: PyDev Website [1225], PyDev Manual [1226]

15.4.5 Available Python modules

- **SciPy** Documentation [1227] (pick the right version)

  Python 2.5: version 0.7.0

  Python 2.6: version 0.10.0

[1225] http://pydev.org
[1226] http://pydev.org/manual.html
[1227] http://docs.scipy.org/doc/

- **NumPy** Documentation [1228] (pick the right version)
  Python 2.5: version 1.2.1

  Python 2.6: version 1.6.1
- **matplotlib** Documentation (for the latest version) [1229] If you need the documentation for 0.99.3, please contact ISIP.
  Python 2.5: version 0.99.3

  Python 2.6: version 1.2.x
- **ipython** Documentation [1230] (pick the right version)
  Python 2.5: version 0.8.4

  Python 2.6: version 0.12

15.4.6 Installation details

Directory layout

- **select_python script** $ITMSCRIPTDIR/select_python
- **Python installations** $SWITMDIR/python/python2.5.1
  $SWITMDIR/python/python2.6.7
- **Standard packages** (NumPy, SciPy, matplotlib, ...)
  /afs/.efda-itm.eu/project/switm/python/python_pk.2.5.1
  $SWITMDIR/python/python_pk.2.6/lib/python2.6/site-packages
- **ITM-specific packages** (UAL, ...)
  - **Python UAL interface** $SWITMDIR/ual/$DATAVERSION/python_pk.$PYTHONVERSION
  - **ITM Visualization Library** $SWITMDIR/itmvis/$DATAVERSION/python_pk.$PYTHONVERSION

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16 Visualization

The ITM-TF employs a variety of tools to visualize results from numerical simulations.
ITM Visualization overview document here [1231] (with timeline & development plan).

General-purpose visualisation tools

- **ISE** [1232] The Integrated Simulation Editor, ISE, allows to visualise and edit data from an ITM database entry. It also allows running a Kepler workflow based on the opened data entry.
- **Python** [1233] Python is a general-purpose, high-level programming language whose design philosophy emphasizes code readability. There are powerful visualisation packages for python, e.g. mathplotlib which provide an interface similar to the one provided by MATLAB. The ITM has also developed a python interface to the UAL and a python actor for Kepler.
  For an introduction to python visualization of ITM, see the Euforia training [1234]

[1228] http://docs.scipy.org/doc/
[1229] http://matplotlib.sourceforge.net/contents.html#
[1230] http://ipython.org/documentation.html
[1231] https://www.efda-itm.eu/ITM/imports/isip/public/itm-vis-roadmap2012.pdf
[1232] https://www.eufus.eu/documentation/ITM/html/isip_ise.html
[1233] http://www.python.org/
[1234] http://193.144.240.25/materialDisplay.py?materialId=slides&confId=39

- **VisIt** [1235] VisIt is a free interactive parallel visualization and graphical analysis tool for viewing scientific data.
Useful links:
- Euforia training on VisIt [1236]
- ualconnector - visualizing CPOs in VisIt [1237]
- Gforge project [1238]

- **MATLAB** [1239] MATLAB is an interpretative programming languish with a commercial engine. As of september 2011 there are MATLAB licences on the Gateway courtesy of ENEA.
The ITM has developed a MATLAB interface to the UAL. An examples can be found on the gateway on the account of Olivier Sauter

```
~sauter/public/matlab/getallcpos.m
```

last update: 2019-01-31 by g2dpc

17 Workflows

17.1 Workflows for Integrated Physics Modelling

There are currently two ETS workflows

- ETS_A [1240]
- ETS_C [1241]

For equilibrium reconstruction and MHD stability analysis the IMP12 has developed a set of workflows IMP12 workflows [1242]

The IMP5 has developed a workflow combining all heating and current schemes, the IMP5HCD [1243]. This workflow runs as a module in the ETS.
For more workflows related to heating current drive, see IMP5 workflows [1244]

17.2 Target Workflows

Target	**Needed elements**	**Timeframe (tentative)**
Current ramp up simulation	• Transport models • NCLASS (or equivalent) • free boundary equilibrium code	07/2011
ECRH	• equilibrium • plasma background • antennas; machine description • modulation	07/2011

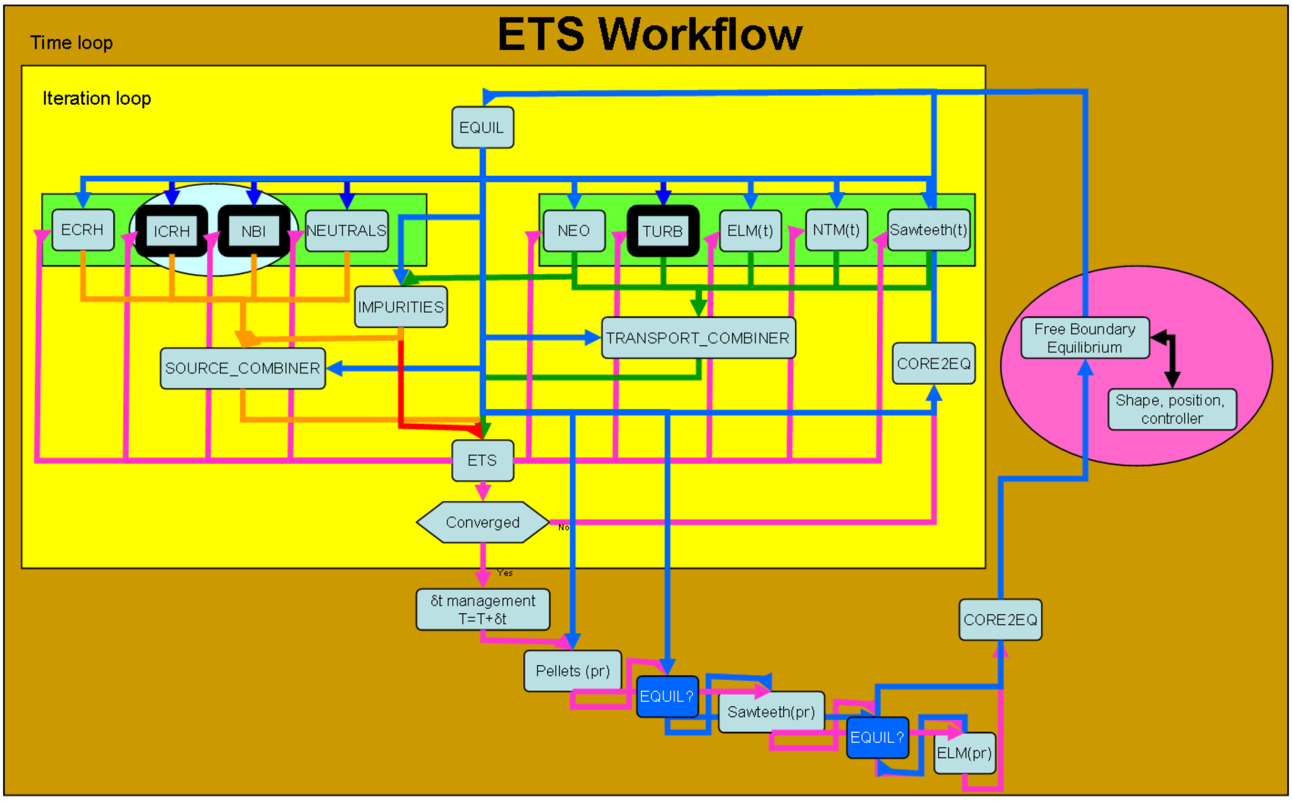
1235 https://wci.llnl.gov/codes/visit/
1236 https://wiki.eu-euforia.eu/index.php/Training2010_visit
1237 https://portal.eufus.eu/documentation/ITM/doxygen/imp3/grid_service_library/python/ualconnector.html
1238 https://gforge6.eufus.eu/project/visit_visu/
1239 http://www.mathworks.se/products/matlab/index.html
1240 https://www.efda-itm.eu/ITM/html/ETS_A_KEPLER.html
1241 https://www.efda-itm.eu/ITM/html/ETS_C_KEPLER.html
1242 https://www.efda-itm.eu/ITM/html/imp12_workflows.html
1243 https://www.efda-itm.eu/ITM/html/imp5_compositeactor_imp5hcd.html
1244 https://www.efda-itm.eu/ITM/html/imp5_workflows.html

Target	**Needed elements**	**Timeframe (tentative)**
ECRH + MHD	• NTM • ecrh • 2d/3d profile (?) • 3d (?) equilibrium • need communication that bypasses ETS	end 2012
ICRF waves	• equilibrium • plasma background • antennas; machine description	03/2011
NBI	• Import previous benchmarks between ASCOT/TRANSP/PENCIL from JET (exp2ITM)	end 2011
Fokker-Planck	• Mainly time-dependent workflow • Input – equilibrium – plasma background – waves, or distsource (nbi/alpha source) • Validation against experimental results (JET, AUG, TS) – Fast particle effects – Neutrons spectra/rates; nuclear data – Comparison require synthetic diagnostics	2012 – 2013
Fast particles losses to walls	• Time-dependent workflow • Input – equilibrium extending to the wall – 3d equilibrium needed to investigate ripple losses; machine description for coil systems – 3d wall required to estimate power loads and for sythetic diagnostics (e.g. scintilator probe in JET); machine description – coreprof – neutrals in core out to real wall (for charge exchange losses) – cross-sections for charge exchange processes • Validation – Limter heating in JET ripple experiments – Scintillator measurements JET/AUG	2012 – 2013
Coupling of ICRH/LH waves	• Mainly single time slice • Input – antennas; machine descriptions – edge (density between antenna and plasma) – equilibrium – coreprof	2012 – 2016
Scan over shots	• UALinit and UALcollector both inside loop	implemented, being tested

Target	Needed elements	Timeframe (tentative)
Reflectometry	• turbulence • equilibrium • antenna • coreprof • edge	10/2011
Stability with linear microstability	• existing MHD stability chain with additional modules from IMP4	end 2011
Stability with neoclassical	• existing MHD stability chain with additional module (NCLASS or equivalent) from IMP4	10/2011
pellet ablation workflow	• pellet module • coreprof • equilibrium • synthetic diagnostics	
sawteeth	• coreprof • equilibrium • pellets • icrh (including fast particle redistribution and fast particle stabilization) • ecrh • (?) 3D equilibrium with anisotropy	2011 – 2014
effect of fast particles on Alfvenic modes	• equilibrium • coreprof • modification of energetic partcile distribution by Alfven Eigenmodes • sources of fast particles (ICRH, NBI, fusion) • later non-linear MHD	2011 – 2014
Stability with fast particles (I)	• existing MHD stability chain with additional modules from IMP5 ("LEMAN")	07/2011
Stability with fast particles (II)	• existing MHD stability chain with additional modules from IMP5 ("LEMAN"); ETS type workflow	end 2011
Feedback control	• free boundary equilibrium • ntm • sawteeth • beta • synthetic diagnostics (EDRG) • modules need to accept information from controllers (moving mirrors , ...)	2011 – 2012

<table>
<tr><th>Target</th><th>Needed elements</th><th>Timeframe (tentative)</th></tr>
<tr><td>Edge</td><td>coreprof
equilibrium (grid generator)
edge (SOLPS, ASPOEL)
machine description (wall, pumping)
neutrals in core out to real wall</td><td>end 2012</td></tr>
<tr><td>surface/plasma interaction</td><td>above (”edge”) + ERO</td><td>end 2013</td></tr>
<tr><td>mimic ”chain2”</td><td>100 – 1000 snapshots / discharge
20 (or more) radial points
equilibrium (EQUAL)
heating (FPSIM - PION-equivalent, except lacking IC/NBI coupling; ECRH; NBI)
transport coefficients (derived from profiles and sources — ETS must be able to work in interpretive mode)
used to produce reference core profiles on JET (Te, ne, ... [1d])
run time at JET approximately 10 hours</td><td>03/2011</td></tr>
<tr><td>beat TRANSP</td><td>interpretive mode (nubeam replaced by ASCOT)
predictive; sytnthetic diagnostics</td><td>end 2011</td></tr>
<tr><td>ELMs</td><td>edge stability
ETS
equilibrium
neoclassic
linear stability
build database
build transport models
continuous ELM
ELM resolved</td><td>first part: 03/2011</td></tr>
<tr><td>current drive and heating</td><td>equilibrium reconstruction
heating and current drive
comparison with experiment</td><td></td></tr>
<tr><td>SOL turbulence</td><td>simulated SOL turbulence
experimental Langmuir probe data</td><td></td></tr>
</table>

17.2.1 ETS 2010-09



For a full tutorial on how to run the ETS under KEPLER check this User Guide [1245]

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last update: 2012-07-18 by coster

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last update: 2012-07-18 by coster

18 ITM Calendar

The ITM calendar can be found here [1246] (open a new tab in your browser if you have a problem). Requests for additions should be e-mailed to the Task Force Leadership.

19 Code Status

The following webpage gives users a summary of the development and release status of the physics and infrastructure modules maintained within the ITM: ITM Code Status [1247]
Developers, please update the status of your modules regularly following the above link!

20 ITM Code Catalogue

- IMP12 list of codes [1248]
- IMP3 list of codes [1249]
- IMP5 list of codes [1250]

[1245] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[1246] https://www.eufus.eu/documentation/ITM/cal/
[1247] http://portal.efda-itm.eu/itm/portal/auth/index.php?page=ITMCODESTATUS
[1248] https://www.efda-itm.eu/ITM/html/imp12_listcodes.html
[1249] https://www.efda-itm.eu/ITM/html/imp3_listcodes.html
[1250] https://www.efda-itm.eu/ITM/html/imp5_listcodes.html

In 2004 an ITM Code Catalogue was created, see 2004 ITM Code Catalog [1251]. While this catalog is now somewhat out of date, it is still useful.

21 Documentation Project

The SVN log for the website can be found here [1252]

22 Verification and Validation

The following documents specify the standard procedure for verification (29) and validation (29) and give an example.

- Validation Procedure (Draft) [1253]
- Validation Procedure (Appendix) [1254]

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[1251] https://www.efda-itm.eu/ITM/imports/itm/public/codcat/index.html
[1252] https://www.eufus.eu/documentation/ITM/svn_log/log.txt
[1253] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
[1254] https://www.efda-itm.eu/ITM/imports/itm/public/validation_procedure_appendix.pdf

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24 ITM General Meetings

The annual meeting of the Integrated Tokamak Modelling Task Force is an important venue to obtain an overview of the project status and most importantly for a joint elaboration and collaborative discussion on the development of the Task Force activities.

24.1 2011 ITM- EXPO at the EPS

Posters prepared for the 2011 EPS ITM Expo

- *ITM* [1255]
- *ITM Code Camps* [1256]
- *ISIP* [1257]
- *ISIP + IMP12: Control* [1258]
- *EDRG* [1259]
- *AMNS* [1260]
- *ISM* [1261]
- *IMP12 Equilibrium and Stability* [1262]
- *IMP3 Core* [1263]
- *IMP3 Edge* [1264]
- *IMP4* [1265]

1255 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
1256 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
1257 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
1258 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
1259 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
1260 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
1261 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
1262 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
1263 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
1264 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
1265 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx

- *IMP5-I* [1266]
- *IMP5-II* [1267]
- *EUFORIA* [1268]
- *MAPPER* [1269]

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last update: 2012-07-04 by coster

24.2 2013 General Meeting

- *ITER Integrated Modelling Programme* (ppt [1270]), by Simon Pinches
- *ITM-TF Status and Achievements* (ppt [1271]), by Gloria Falchetto
- *AMNS + IMP3* (ppt [1272]), by David Coster
- *Overview of EDRG results* (ppt [1273]), by Rui Coelho
- *ISIP 2013 overview* (ppt [1274]), by Frederic Imbeaux
- *IMP12 at the end of 2013* (ppt [1275]), by Dmitriy Yadikin
- *ITM-IMP4 Status & Achievements* (ppt [1276]), by Anders Henry Nielsen
- *IMP5 2013 overview* (ppt [1277]), by Daniela Farina
- *INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013* (pdf [1278]), by Irina Voitsekhovitch
- *Euro-Fusion Code Development for Integrated Modelling Work Package* (pdf [1279]), by Gloria Falchetto

24.3 2013 Meeting on Workflows

- *ITM Workflows (repeat of Workflow presentation from 2012 GM)* (ppt [1280]), by David Coster
- *Overview of the OMFIT framework* (pdf [1281]), by Orso Meneghini
- *Tightly-coupled workflows using MUSCLE2* (pdf [1282]), by Olivier Hoenen
- *The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations* (pdf [1283]), by Don Batchelor
- *Demo on ETS workflow capabilities* (ppt [1284]), by Denis Kalupin
- *ITM scenarios using IPS* (ppt [1285]), by Sebastian Petruczynik (and Marcin Plociennik)

1266 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
1267 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
1268 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
1269 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
1270 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
1271 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
1272 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
1273 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
1274 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
1275 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
1276 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
1277 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
1278 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
1279 https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
1280 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
1281 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
1282 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/muscle2-lisbon2013.pdf
1283 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
1284 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
1285 https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt

24.4 2012 General Meeting

- *ITM-TF Status and 2013 WorkPlan* (ppt [1286]), by Gloria Falchetto
- *Integrated Modelling for ITER* (ppt [1287]), by Simon Pinches
- *ISIP 2012 overview* (ppt [1288]), by Frederic Imbeaux
- *Overview of Experimentalist and Diagnostician Resource Group (EDRG)* (ppt [1289]), by Rui Coelho
- *Coordination and Provision of AMNS data* (ppt [1290]), by David Coster
- *Workflows* (ppt [1291]), by David Coster
- *Equilibrium, MHD, and Disruptions* (ppt [1292]), by Edmondo Giovannozzi
- *IMP3: Transport Code and Discharge Evolution* (ppt [1293]), by David Coster
- *IMP4* (pdf [1294]), by Bruce Scott
- *IMP5 2012 overview* (ppt [1295]), by Daniela Farina
- *IMP5: Energetic Particles* (pdf [1296]), by
- *INTEGRATED SCENARIO MODELLING (summary of ISM group activities for 2012)* (ppt [1297]), by Xavier Litaudon

24.5 2011 General Meeting

- *Opening* (ppt [1298]), by G. Falchetto
- *ITM Overview* (ppt [1299]), by G. Falchetto
- *ITER IO Strategy on IM* (pdf [1300]), by W. Houlberg
- *Present ITM capabilities* (ppt [1301]), by D. Coster
- *ISIP* (ppt [1302]), by G. Manduchi
- *EDRG* (ppt [1303]), by R. Coelho
- *AMNS* (ppt [1304]), by
- *Equilibrium and MHD stability chain (IMP12)* (ppt [1305]), by W. Zwingmann
- *IMP3* (ppt [1306]), by D. Coster
- *Present status of the General Grid Description and related software (IMP3)* (ppt [1307]), by H.-J. Klingshirn

[1286] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[1287] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[1288] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[1289] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[1290] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[1291] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[1292] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[1293] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[1294] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[1295] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[1296] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[1297] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[1298] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[1299] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[1300] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[1301] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[1302] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[1303] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[1304] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[1305] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[1306] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[1307] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt

- *Integration of heating and fast particles models and composite actor for the ETS (IMP5)* (ppt [1308]), by T. Jonsson
- *IMP4* (pdf [1309]), by B. Scott
- *The ITM General Grid Description* (ppt [1310]), by H.-J. Klingshirn
- *Visualization Tools in the ITM* (ppt [1311]), by D. Coster
- *Cross project session on Control* (ppt [1312]), by T. Bolzonella

24.6 2010 General Meeting

24.6.1 Plenary sessions

- *Overview of AMNS activities during 2010* (ppt [1313]), by Lars Göran Eriksson (presented by D. Coster)
- *Overview of ISIP activities during 2010* (ppt [1314]), by Fréderic Imbeaux
- *Overview of IMP12 activities during 2010* (pps [1315]), by Maurizio Ottaviani
- *Overview of IMP3 activities during 2010* (ppt [1316]), by David Coster
- *Overview of IMP4 activities during 2010* (pdf [1317]), by Bruce Scott
- *Overview of IMP5 activities during 2010* (ppt [1318]), by Daniela Farina
- *Overview of ISM activities during 2010* (ppt [1319]), by Xavier Litaudon
- *Overview of EDRG activities during 2010* (ppt [1320]), by Rui Coelho

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- *The EFDA HPC Project* (pdf [1321]), by Roman Hatzky
- *Integrated Modelling in ITER* (ppt [1322]), by Wayne Houlberg
- *PRACE* (pps [1323]), by Maurizio Ottaviani
- *EUFORIA-Grid and HPC access for Fusion* (ppt [1324]), by Marcin Plociennik

24.6.2 Parallel sessions

24.6.2.1 ISIP

24.6.2.1.1 Posters

- *WebService Actor Generator* (ppt [1325]), by B. Guillerminet
- *HPC2K - GRID and HPC Actor Generator* (ppt [1326]), by B. Guillerminet et al.
- *Parallel I/O in Simulation Workflows* (ppt [1327]), by A. Galonska et al.

[1308] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[1309] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[1310] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[1311] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[1312] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[1313] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[1314] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[1315] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[1316] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[1317] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[1318] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
[1319] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
[1320] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[1321] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[1322] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[1323] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[1324] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[1325] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
[1326] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[1327] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt

- *Exp2ITM - a generic access to shot based data for European Tokamaks* (ppt [1328]), by J. Signoret et al.
- *Integrated Simulation Editor* (ppt [1329]), by J. Signoret et al.
- *Feedback control Simulation under the ITM platform* (pdf [1330]), by O. Barana et al.
- *Control Toolbox* (ppt [1331]), by N. Signoret and G. Manduchi
- *The ITM-TF Simulation Catalogue* (ppt [1332]), by F. Imbeaux et al.

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last update: 2011-02-10 by konz

24.6.2.2 IMP12

24.6.2.2.1 Posters

- *Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows* (pdf [1333]), by G. Calabrò et al.
- *The New ITM Website* (pdf [1334]), by C. Konz et al.
- *Sawteeth and Neoclassical Tearing Modes Workflows* (ppt [1335]), by O. Sauter et al.
- *Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a Scientific Workflow System* (pdf [1336]), by W. Zwingmann et al.
- *Free Boundary Equilibrium Code CEDRES++* (pdf [1337]), by J. Blum et al.
- *Status of MARS-F and CarMa codes on ITM* (ppt [1338]), by D. Yadykin et al.

24.6.2.2.2 Code overview talks

- *Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak* (ppt [1339]), by C.V. Atanasiu et al.
- *Update on FIXFREE and CREATE-NL* (ppt [1340]), by G. Calabrò et al.
- *Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core* (pdf [1341]), by W.A. Cooper

24.6.2.2.3 Talks on infrastructure and tools

- *XML2EQ (YAXFI)* (ppt [1342]), by E. Giovannozzi
- *Interpos - Generic Code Params - Numerical Fit* (pdf [1343]) (ppt [1344]), by O. Sauter
- *Fitting to Scattered Data* (ppt [1345]), by W. Zwingmann and L.-G. Eriksson

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last update: 2011-02-10 by konz

[1328] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[1329] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[1330] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[1331] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[1332] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[1333] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[1334] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
[1335] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[1336] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
[1337] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[1338] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[1339] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[1340] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[1341] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[1342] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[1343] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[1344] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.ppt
[1345] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Zwingmann_fife-fitting_gs04.ppt

24.6.2.3 IMP3

24.6.2.3.1 Posters

- *Status of Edge Codes on the Gateway* (ppt [1346]), by F. Subba et al.
- *Status of grids in CPOS + edge CPOS* (ppt [1347]), by F. Subba et al.
- *European Transport Workflows - first results, validation and benchmark* (pdf [1348]), by V. Basiuk et al.
- *European Transport Solver* (pdf [1349]), by D. Coster et al.
- *Validation and verification of the European Transport Solver* (pdf [1350]), by D. Kalupin et al.
- *Full tokamak simulation global workflow case study* (pdf [1351]), by J. Lister and K. Besseghir

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last update: 2012-04-26 by coster

24.6.2.4 IMP4

24.6.2.4.1 Posters

- *The IMP4 wrapper for running IMP4 codes in UAL framework* (pdf [1352]), by D. Reiser and A. Nielsen

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last update: 2011-02-10 by konz

24.6.2.5 IMP5

24.6.2.5.1 Posters

- *GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks* (pdf [1353]) (pptx [1354]), by Daniela Farina and Lorenzo Figini
- *Numerical Codes for Electron Cyclotron heating and Current Drive* (pdf [1355]), by Egbert Westerhof and Nicola Bertelli
- *Neutral Beam Injection in ITM* (pdf [1356]) (ppt [1357]), by Mireille Schneider and Lars-Göran Eriksson
- *Modelling NBI in ITM environment with ASCOT* (pdf [1358]), by Otto Asunta and Seppo Sipilä;
- *IMP5 / ACT4: RF Monte Carlo library for orbit following codes* (pdf [1359]) (ppt [1360]), by Thomas Johnson
- *Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method* (pdf [1361]), by György Steinbrecher

[1346] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[1347] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[1348] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[1349] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[1350] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf
[1351] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[1352] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[1353] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[1354] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pptx
[1355] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[1356] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[1357] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[1358] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[1359] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.pdf
[1360] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.ppt
[1361] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf

- *Fast Particles activities during WP10* (pdf [1362]), by Gregorio Vlad

24.6.2.5.2 Code overview talks

- *GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks* (pdf [1363]) (pptx [1364]), by Daniela Farina and Loretzo Figini
- *Numerical codes for electron cyclotron heating and current drive* (pdf [1365]), by Nicola Bertelli and Egbert Westerhof
- *TORBEAM: Physical Model* (pdf [1366]) (ppt [1367]), by Nicola Bertelli and Egbert Westerhof
- *Full-wave modelling of electromagnetic wave propagation with the code FWTOR* (pdf [1368]) (ppt [1369]), by Christos Tsironis
- *Fast ICRH code for routine analysis* (pdf [1370]) (ppt [1371]), by Torbjörn Hellsten
- *Modelling NBI in ITM environment with ASCOT* (pdf [1372]), by Otto Asunta and Seppo Sipilä;
- *Present status of NBI codes for ITM* (pdf [1373]) (pptx [1374]), by Mireille Schneider
- *Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core* (pdf [1375]), by Tony Cooper
- *IMP5 / ACT4: RF Monte Carlo library for orbit following codes* (pdf [1376]) (ppt [1377]), by Thomas Johnson
- *Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method* (pdf [1378]), by György Steinbrecher
- *IMP5: Energetic Particles* (pdf [1379]) by Gregorio Vlad
- *Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles* (pdf [1380]), by Gregorio Vlad

[1362] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[1363] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[1364] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pptx
[1365] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[1366] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
[1367] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.ppt
[1368] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[1369] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[1370] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.pdf
[1371] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.ppt
[1372] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[1373] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[1374] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[1375] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[1376] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.pdf
[1377] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.ppt
[1378] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Steinbrecher_ITM-GM2010.pdf
[1379] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_Energetic_Particles_ITM_GM2010.pdf
[1380] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_HMGC_HYMAGYC_ITM_GM2010.pdf

24.6.2.5.3 Talks on infrastructure and tools

- *IMP5 CPOs* (pdf [1381]) (ppt [1382]), by Thomas Johnson
- *Quick introduction to documentation with Doxygen* (pdf [1383]) (ppt [1384]), by Thomas Johnson
- *IMP5: ITM tools a quick start* (pdf [1385]) (ppt [1386]), by Thomas Johnson

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last update: 2015-07-23 by tjohnson

24.6.2.6 ISM

24.6.2.6.1 1.Monday

- *Integrated Scenario Modelling, ISM, Workprogramme* (pdf [1387]), by X.Litaudon
- *ITER Hybrid Regime: modelling requests* (pdf [1388]), by W.Houlberg
- *JET hybrid regime: requests for modelling* (pdf [1389]), by E.Joffrin
- *Modelling of hybrid regime - present status* (pdf [1390]), by V.Parail
- *ASDEX Upgrade hybrid regime: requests in terms of modelling* (pdf [1391]), by J.Hobirk

24.6.2.6.2 2.Tuesday

- *Validation and verification of the European Transport Solver* (pdf [1392]), by D.Kalupin

24.6.2.6.3 3.Wednesday

- *Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP* (ppt [1393]), by I.Voitsekhovitch
- *Report on paper on density and fuelling on ITER* (ppt [1394]), by L.Garzotti
- *Current ramp-up wrapup and publication* (ppt [1395]), by F.Imbeaux

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last update: 2011-02-10 by konz

24.6.2.7 EDRG

24.6.2.7.1 Posters

- *3D Machine Description of Fusion Devices* (pdf [1396]), by T. Lunt et al.
- *Simulation of MSE spectra from predictive fusion plasma simulations* (pdf [1397]), by A. Dinklage et al.

[1381] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[1382] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.ppt
[1383] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[1384] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.ppt
[1385] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf
[1386] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.ppt
[1387] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Litaudon.pdf
[1388] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[1389] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf
[1390] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
[1391] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[1392] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt
[1393] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[1394] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[1395] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[1396] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[1397] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf

- *European Reflectometer Code Consortium (ERCC) activities* (ppt [1398]), by E. Blanco et al.

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last update: 2011-02-16 by coster

24.7 2010 EU-US Workshop on Software Technologies for Integrated Modelling

When: December 1-3 (09:00 - 17:00)
Where: Chalmerska Huset, Södra Hamngatan 11, Göteborg, SWEDEN (Wednesday, Thursday) Lilla bommens Konferenscenter, Lilla Bommen 4, Room Carmen (Friday)
A three day workshop discussing the progress and developments of the Integrated modelling activities in EU and US.

24.7.1 Subject Areas

Data structure methodologies

- Interface technologies
- Execution engines and Frameworks
- Cross validation/testing opportunities

24.7.2 Presentations

- *Overview of the European Integrated Tokamak Modelling Task Force* (pdf [1399]), by G. Falchetto
- *Center for Simulations of Wave Interactions with MHD (SWIM)* (pdf [1400]), by D. Batchelor
- *A Brief Introduction to FACETS* (pdf [1401]), by T. Epperly
- *Tour de Project: Proto-FSP CPES* (pdf [1402]), by C.S. Chang
- *EUFORIA - Brief Overview* (pdf [1403]), by P. Strand
- *Center for Extended MHD Modeling (CEMM)* (pdf [1404]), by S. Jardin
- *Fusion Simulation Program (FSP)* (pdf [1405]), by W.M. Tang (presented by C.S. Chang)
- *ITER Needs and Requirements* (ppt [1406]), (wmv [1407]), by W.A. Houlberg
- *Detailed Overview of the Plasma State Software* (pdf [1408]), by D. McCune
- *Consistent Physical Objects - A data structure concept for Integrated Modelling* (ppt [1409]), by F. Imbeaux
- *Code Specific Parameters* (pdf [1410]), by C. Konz
- *Storing Data on a Grid / AMNS* (ppt [1411]), by D. Coster

[1398] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[1399] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[1400] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[1401] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[1402] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[1403] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[1404] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[1405] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[1406] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[1407] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[1408] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[1409] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[1410] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[1411] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt

- *ADIOS 1.2* (pdf [1412]), by S. Klasky
- *Universal Access Layer* (pdf [1413]), by G. Manduchi
- *LSDF - Large Scale Data Facility at KIT* (pdf [1414]), by M. Hardt
- *Distributed Resources in Kepler* (ppt [1415]), by M. Plociennik
- *Code Interface - FC2K, WS2K & HPC2K Tools* (ppt [1416]), by B. Guillerminet
- *IMP12 Kepler Workflows* (pdf [1417]), by C. Konz
- *Design Elements of EFFIS and Weak & Strong Couplings in CPES* (pdf [1418]), by C.S. Chang
- *The Integrated Plasma Simulator: Framework for Loosely Coupled Codes* (pdf [1419]), by W.R. Elwasif
- *ETS: Design Elements - Integrated Modelling* (ppt [1420]), (movie1 [1421]) (movie2 [1422]) by D. Coster
- *Free-Boundary Modeling of NSTX Plasmas* (pdf [1423]), by S. Jardin
- *FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling* (pdf [1424]), by T. Epperly
- *Assembling a SWIM IPS Simulation* (pdf [1425]), by D. Batchelor

24.7.3 Participants

- Pär Strand, Chalmers
- David Coster, Max Planck Institute for Plasma Physics
- Marcin Plociennik, PSNC
- Scott Klasky, ORNL
- Gabriele Manduchi, Consorzio RFX
- Fréderic Imbeaux, CEA CADARACHE
- Christian Konz, Max-Planck-Institute for Plasma Physics
- Roberto Paccagnella, Consorzio RFX
- Wael Elwasif Oak Ridge National Laboratory
- Bernard Guillerminet, CEA
- Stephen Jardin, Princeton Plasma Physics
- David Bernholdt, Oak Ridge National Laboratory
- Donald Batchelor, ORNL

[1412] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[1413] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[1414] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[1415] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[1416] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[1417] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[1418] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[1419] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[1420] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[1421] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[1422] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[1423] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
[1424] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[1425] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf

- C-S Chang, New York University
- Gloria Falchetto, CEA
- Wolfgang Zwingmann, European Commission, Research Directorate
- Tom Epperly, Lawrence Livermore National Laboratory
- Marcus Hardt, KIT
- Wayne Houlberg, ITER Organization
- Doug McCune, PPPL

24.7.4 Projects represented

- EUFORIA [1426]
- ITM-TF [1427]
- CPES [1428]
- FACETS [1429]
- CSWIM [1430]
- TRANSP [1431]
- CEMM [1432]

24.7.5 Links

EUFORIA Wiki [1433]

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last update: 2011-03-23 by coster

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last update: 2013-11-30 by dpc

25 EUFORIA

EUFORIA (EU Fusion fOR Iter Applications) is a project funded by European Union under the Seventh Framework Programme (FP7) which will provide a comprehensive framework and infrastructure for core and edge transport and turbulence simulation, linking grid and High Performance Computing (HPC), to the fusion modelling community.

25.1 Scientific Rationale and Main Objectives

The EUFORIA project will enhance the modelling capabilities for ITER sized plasmas through the adaptation, optimization and integration of a set of critical applications for edge and core transport modelling targeting different computing paradigms as needed (serial and parallel grid computing and HPC). Deployment of both a grid service and a High Performance Computing services are essential to the project. A novel aspect is the dynamic coupling and integration of codes and applications running on a set of heterogeneous platforms into a single coupled framework through a workflow engine a mechanism needed to provide the necessary level integration in the physics applications. This strongly enhances the integrated modelling capabilities of fusion plasmas and will at the same time provide new computing infrastructure and tools to the fusion community in general.

[1426] http://www.euforia-project.eu/EUFORIA/
[1427] https://www.efda-itm.eu/WORLD/html/
[1428] http://www.cims.nyu.edu/cpes/
[1429] https://www.facetsproject.org/
[1430] http://cswim.org/
[1431] http://w3.pppl.gov/transp/
[1432] http://w3.pppl.gov/cemm/
[1433] https://wiki.eu-euforia.eu/index.php/EU-US_workshop_2010

25.2 EUFORIA Resources

- The main EUFORIA Website [1434]
- The EUFORIA Public Wiki [1435]
- The EUFORIA Internal Wiki (password protected) [1436]
- JRA3 (Workflows) Wiki [1437]
- Support [1438]
- The EUFORIA Wikipedia entry in English [1439], Deutsch [1440], Español [1441], Français [1442], Slovenian [1443] and Suomi [1444]

25.3 Meetings

25.3.1 2010 EU-US Workshop on Software Technologies for Integrated Modelling

When: December 1-3 (09:00 - 17:00)
Where: Chalmerska Huset, Södra Hamngatan 11, Göteborg, SWEDEN (Wednesday, Thursday) Lilla bommens Konferenscenter, Lilla Bommen 4, Room Carmen (Friday)
A three day workshop discussing the progress and developments of the Integrated modelling activities in EU and US.

25.3.1.1 Subject Areas

Data structure methodologies

- Interface technologies
- Execution engines and Frameworks
- Cross validation/testing opportunities

25.3.1.2 Presentations

- *Overview of the European Integrated Tokamak Modelling Task Force* (pdf [1445]), by G. Falchetto
- *Center for Simulations of Wave Interactions with MHD (SWIM)* (pdf [1446]), by D. Batchelor
- *A Brief Introduction to FACETS* (pdf [1447]), by T. Epperly
- *Tour de Project: Proto-FSP CPES* (pdf [1448]), by C.S. Chang
- *EUFORIA - Brief Overview* (pdf [1449]), by P. Strand
- *Center for Extended MHD Modeling (CEMM)* (pdf [1450]), by S. Jardin
- *Fusion Simulation Program (FSP)* (pdf [1451]), by W.M. Tang (presented by C.S. Chang)

[1434] http://www.euforia-project.eu/EUFORIA/
[1435] http://wiki.euforia-project.eu/
[1436] http://iwiki.euforia-project.eu/
[1437] http://scilla.man.poznan.pl:8080/confluence
[1438] https://support.euforia-project.eu/
[1439] http://en.wikipedia.org/wiki/EUFORIA_project
[1440] http://de.wikipedia.org/wiki/EUFORIA-Projekt
[1441] http://es.wikipedia.org/wiki/Proyecto_EUFORIA
[1442] http://fr.wikipedia.org/wiki/Projet_EUFORIA
[1443] http://sl.wikipedia.org/wiki/Projekt_EUFORIA
[1444] http://fi.wikipedia.org/wiki/EUFORIA-projekti
[1445] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[1446] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[1447] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[1448] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[1449] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[1450] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[1451] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf

- *ITER Needs and Requirements* (ppt [1452]), (wmv [1453]), by W.A. Houlberg
- *Detailed Overview of the Plasma State Software* (pdf [1454]), by D. McCune
- *Consistent Physical Objects - A data structure concept for Integrated Modelling* (ppt [1455]), by F. Imbeaux
- *Code Specific Parameters* (pdf [1456]), by C. Konz
- *Storing Data on a Grid / AMNS* (ppt [1457]), by D. Coster
- *ADIOS 1.2* (pdf [1458]), by S. Klasky
- *Universal Access Layer* (pdf [1459]), by G. Manduchi
- *LSDF - Large Scale Data Facility at KIT* (pdf [1460]), by M. Hardt
- *Distributed Resources in Kepler* (ppt [1461]), by M. Plociennik
- *Code Interface - FC2K, WS2K & HPC2K Tools* (ppt [1462]), by B. Guillerminet
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- *The Integrated Plasma Simulator: Framework for Loosely Coupled Codes* (pdf [1465]), by W.R. Elwasif
- *ETS: Design Elements - Integrated Modelling* (ppt [1466]), (movie1 [1467]) (movie2 [1468]) by D. Coster
- *Free-Boundary Modeling of NSTX Plasmas* (pdf [1469]), by S. Jardin
- *FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling* (pdf [1470]), by T. Epperly
- *Assembling a SWIM IPS Simulation* (pdf [1471]), by D. Batchelor

25.3.1.3 Participants

- Pär Strand, Chalmers
- David Coster, Max Planck Institute for Plasma Physics
- Marcin Plociennik, PSNC
- Scott Klasky, ORNL
- Gabriele Manduchi, Consorzio RFX

[1452] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[1453] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[1454] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[1455] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[1456] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[1457] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[1458] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[1459] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[1460] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[1461] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[1462] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[1463] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[1464] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[1465] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[1466] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[1467] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[1468] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[1469] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
[1470] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[1471] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf

- Fréderic Imbeaux, CEA CADARACHE
- Christian Konz, Max-Planck-Institute for Plasma Physics
- Roberto Paccagnella, Consorzio RFX
- Wael Elwasif Oak Ridge National Laboratory
- Bernard Guillerminet, CEA
- Stephen Jardin, Princeton Plasma Physics
- David Bernholdt, Oak Ridge National Laboratory
- Donald Batchelor, ORNL
- C-S Chang, New York University
- Gloria Falchetto, CEA
- Wolfgang Zwingmann, European Commission, Research Directorate
- Tom Epperly, Lawrence Livermore National Laboratory
- Marcus Hardt, KIT
- Wayne Houlberg, ITER Organization
- Doug McCune, PPPL

25.3.1.4 Projects represented

- EUFORIA [1472]
- ITM-TF [1473]
- CPES [1474]
- FACETS [1475]
- CSWIM [1476]
- TRANSP [1477]
- CEMM [1478]

25.3.1.5 Links

EUFORIA Wiki [1479]

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last update: 2011-03-23 by coster

25.3.2 EUFORIA Final Review

When: March 30, 2011

1472 http://www.euforia-project.eu/EUFORIA/
1473 https://www.efda-itm.eu/WORLD/html/
1474 http://www.cims.nyu.edu/cpes/
1475 https://www.facetsproject.org/
1476 http://cswim.org/
1477 http://w3.pppl.gov/transp/
1478 http://w3.pppl.gov/cemm/
1479 https://wiki.eu-euforia.eu/index.php/EU-US_workshop_2010

25.3.2.1 Presentations

- Agenda (pdf [1480])
- Introduction Impact of EUFORIA (Pr, David) (pdf [1481]) (Movie [1482]) (Movie [1483])
- NA2: Training (Adrian) (pdf [1484])
- NA3: Dissemination (Miguel) (pdf [1485])
- SA1: Grid (Marcus) (pdf [1486])
- SA2: HPC (Adrian) (pdf [1487])
- SA3: User support (Adrian) (pdf [1488])
- Cloud pilot: Cloud demo (Marcin) (pdf [1489]) (movie [1490])
- JRA1 Code adaptation for grid (Paco) (pdf [1491])
- JRA2 Code adaptation for HPC (Adrian) (pdf [1492])
- Demonstration/Discussion (Antonio, David T) (pdf [1493]) (movie [1494])
- JRA3: workflows (Bernard) (pdf [1495])
- JRA4: visualization (Olivier) (pdf [1496])
- MHD workflows (Christian) (pdf [1497]) (movie [1498])
- Mixed grid HPC Workflow (Antonio) (pdf [1499]) (movie [1500]) (movie [1501])
- Exploitation and sustainability - (Par, David) (pdf [1502])

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last update: 2011-04-01 by konz

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last update: 2011-03-30 by coster

25.4 Private EUFORIA pages

For accessing the private EUFORIA pages [1503], an EUFORIA password is needed.

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last update: 2011-03-23 by coster

[1480] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[1481] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[1482] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[1483] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[1484] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[1485] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[1486] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA1.pdf
[1487] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
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[1489] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[1490] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[1491] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[1492] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[1493] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
[1494] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[1495] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[1496] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[1497] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[1498] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[1499] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[1500] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[1501] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[1502] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[1503] https://www.efda-itm.eu/EUFORIA/html/index.html

26 Document Catalog

The ITM documentation system hosts a large variety of documents in the form of presentations, reports, technical documentation, monitoring documents, and code documentation.
All these documents are linked to the appropriate location on the website. However, to simplify access and to give an overview of the scope of the existing documentation, the following web pages list all categorized documents in the form of sorted lists.

26.1 Documents (sorted by size)

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ITM (ITM)	*ITM* [1504]	1 page
ITM Code Camps (ITM)	*ITM Code Camps* [1505]	1 page
ISIP (ITM)	*ISIP* [1506]	1 page
ISIP + IMP12: Control (ITM)	*ISIP + IMP12: Control* [1507]	1 page
EDRG (ITM)	*EDRG* [1508]	1 page
AMNS (ITM)	*AMNS* [1509]	1 page
ISM (ITM)	*ISM* [1510]	1 page
IMP12 Equilibrium and Stability (ITM)	*IMP12 Equilibrium and Stability* [1511]	1 page
IMP3 Core (ITM)	*IMP3 Core* [1512]	1 page
IMP3 Edge (ITM)	*IMP3 Edge* [1513]	1 page
IMP4 (ITM)	*IMP4* [1514]	1 page
IMP5-I (ITM)	*IMP5-I* [1515]	1 page
IMP5-II (ITM)	*IMP5-II* [1516]	1 page
EUFORIA (EUFORIA)	*EUFORIA* [1517]	1 page
MAPPER (MAPPER)	*MAPPER* [1518]	1 page
Potential 3D codes for ITM (Konz)	Potential 3D codes for the ITM (C.Konz) [1519]	1 page
3D Machine Description of Fusion Devices (Lunt)	pdf [1520]	1 page
Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage)	pdf [1521]	1 page
European Reflectometer Code Consortium (ERCC) activities (Blanco)	ppt [1522]	1 page
Definition of flux loops in EU-ITM datastructure (Coelho)	Flux loop position [1523]	1 page
PF connections (Coelho)	PFconnections [1524]	1 page
Fusion CPO (Coelho)	Fusion CPO [1525]	1 page
Contents of the ITM public database (Imbeaux)	ITM PublicDatabase [1526]	1 page
Gateway user agreement - invite (Strand)	(doc) [1527]	1 page
Gateway user agreement - invite (Strand)	(pdf) [1528]	1 page
WebService Actor Generator (Guillerminet)	ppt [1529]	1 page

[1504] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[1505] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[1506] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[1507] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[1508] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[1509] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[1510] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[1511] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[1512] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[1513] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[1514] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[1515] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[1516] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[1517] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[1518] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[1519] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[1520] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[1521] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[1522] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
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[1528] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[1529] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt

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Parallel I/O in Simulation Workflows (Galonska)	ppt [1531]	1 page
Exp2ITM - a generic access to shot based data for European Tokamaks (Signoret)	ppt [1532]	1 page
Integrated Simulation Editor (Signoret)	ppt [1533]	1 page
Feedback control Simulation under the ITM platform (Barana)	pdf [1534]	1 page
Control Toolbox (Ravenel)	ppt [1535]	1 page
Control Gantt Chart (Konz)	Gantt Chart [1536]	1 page
Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows (Calabrò)	pdf [1537]	1 page
The New ITM Website (Konz)	pdf [1538]	1 page
Sawteeth and Neoclassical Tearing Modes Workflows (Sauter)	ppt [1539]	1 page
Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann)	pdf [1540]	1 page
Free Boundary Equilibrium Code CEDRES++ (Blum)	pdf [1541]	1 page
Movie: Psi evolution (shot 5 run 42) (Coster)	mpg [1542]	1 page
Movie: Ne/Te/q evolution (shot 5 run 42) (Coster)	mpg [1543]	1 page
Movie: DINA plasma boundary (Lister)	mpg [1544]	1 page
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Current ETS timeline (Gantt chart) (Coster)	(PDF) [1547]	1 page
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Status of Edge Codes on the Gateway (Subba)	ppt [1549]	1 page
Status of grids in CPOS + edge CPOS (Subba)	ppt [1550]	1 page
European Transport Workflows - first results, validation and benchmark (Basiuk)	pdf [1551]	1 page
European Transport Solver (Coster)	pdf [1552]	1 page
Validation and verification of the European Transport Solver (Kalupin)	pdf [1553]	1 page
Full tokamak simulation global workflow case study (Lister)	pdf [1554]	1 page
The IMP4 wrapper for running IMP4 codes in UAL framework (Reiser)	pdf [1555]	1 page

[1530] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[1531] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[1532] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[1533] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[1534] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[1535] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[1536] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf
[1537] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[1538] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
[1539] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[1540] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
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Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof)	pdf [1556]	1 page
Modelling NBI in ITM environment with ASCOT (Asunta)	pdf [1557]	1 page
Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher)	pdf [1558]	1 page
Fast Particles activities during WP10 (Vlad)	pdf [1559]	1 page
Analysis of Runaway Electrons by Numerical Algorithms (Csepany)	pdf [1560]	1 page
Report on ICRF benchmarking in 2014 (Bilato)	IC benchmarking in 2014 [1561]	1 page
Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini)	EC benchmarking in 2014 [1562]	1 page
Report on 2014 NBI benchmarks (Schneider)	NBI benchmarking in 2014 [1563]	1 page
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Optimisation of operational space for long pulse scenarios: xml table (Polevoi)	xml [1566]	1 page
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Code camp report (Figueiredo)	pdf [1568]	1 page
ACT1: Status of impurity modelling with ETS (Ivanova-Stanik)	ppt [1569]	1 page
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[1557] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
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[1594] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
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[1610] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
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[1627] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[1628] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt
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[1650] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
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[1657] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
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[1666] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Litaudon_introduction.pdf
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[1671] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
[1672] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf
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[1676] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[1677] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf
[1678] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
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[1680] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
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[1682] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/newhybrid.ppt
[1683] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
[1684] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf
[1685] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[1686] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
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[1690] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Nave_ETS_Benchmarking.ppt
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[1693] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Voitsekhovitch_June6_2013.pdf
[1694] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Agenda_ISM_ws_June7_2013.pdf
[1695] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Voitsekhovitch.pdf
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[1700] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Litaudon_introduction.pdf
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[1702] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Voitsekhovitch-report_ACT1_ISM_VV_impurity.pdf
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[1709] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[1710] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
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[1715] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[1716] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[1717] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
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[1720] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
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[1722] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
[1723] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt
[1724] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
[1725] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
[1726] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Corediv_model.pdf
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[1756] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
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[1864] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[1865] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[1866] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[1867] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[1868] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[1869] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[1870] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[1871] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA3.pdf
[1872] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[1873] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[1874] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[1875] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ExperimentalDataITM_v3.pdf
[1876] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf
[1877] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[1878] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/CodeCampPereverzev.pdf
[1879] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[1880] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[1881] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[1882] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt
[1883] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[1884] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf
[1885] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[1886] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[1887] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[1888] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[1889] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf

title	link	size
Modelling of kick-triggered ELMs at JET - current status (Koechl)	pdf [1890]	12 pages
Integrated core-edge modelling for JET Hybrid scenario (Belo)	ppt [1891]	12 pages
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DEMO1 profile consistency and sensitivity studies by METIS (Bolzonella)	pdf [1893]	12 pages
ISM news and coming events (Voitsekhovitch)	ppt [1894]	12 pages
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Fusion Simulation Program (FSP) (Tang)	pdf [1896]	12 pages
LSDF - Large Scale Data Facility at KIT (Hardt)	pdf [1897]	12 pages
Use Cases and Outline of the Requirements (Imbeaux)	*Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [1898]	13 pages
EU ITM-TF experience with Kepler (Falchetto)	*EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [1899]	13 pages
Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand)	*Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [1900]	13 pages
PCS integration with Simulink, Scicos & Kepler (Huynh)	*PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [1901]	13 pages
Approach on parallel I/O (Galonska)	Approach on parallel I/O (A. Galonska) [1902]	13 pages
Introduction to ISE (Signoret)	ppt [1903]	13 pages
ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl)	ppt [1904]	13 pages
Predictive modelling of current ramp-down in JET discharges (Lonnroth)	pdf [1905]	13 pages
Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon)	ppt [1906]	13 pages
Agenda (Litaudon)	ppt [1907]	13 pages
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PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia)	pptx [1909]	13 pages
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Progress on simulations of density profiles in hybrid plasmas (Garzotti)	pptx [1911]	13 pages
Optimisation of operational phase for long-pulse scenarios (Polevoi)	pdf [1912]	13 pages

[1890] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Koechl.pdf
[1891] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[1892] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[1893] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[1894] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[1895] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[1896] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[1897] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[1898] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[1899] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[1900] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[1901] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[1902] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Parallel_IO_Galonska.pdf
[1903] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt
[1904] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[1905] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
[1906] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[1907] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[1908] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Agenda_June3_2013.pdf
[1909] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_IO_jeronimo_ISM.pptx
[1910] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_pellet_fuelling.pptx
[1911] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Garzotti_June7_2013.pptx
[1912] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Polevoi-Tasks-Long-Pulse.pdf

title	link	size
Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch)	pdf [1913]	13 pages
ETS V&V activity during coming Code Camp 23-27 May Helsinki (Voitsekhovitch)	pdf [1914]	13 pages
Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch)	pdf [1915]	13 pages
Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density (Ivanova-Stanik)	pdf [1916]	13 pages
ITM scenarios using IPS (Petruczynik)	ppt [1917]	13 pages
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IMP5: Energetic Particles (Vlad)	pdf [1919]	13 pages
Tour de Project: Proto-FSP CPES (Chang)	pdf [1920]	13 pages
Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet)	*Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [1921]	14 pages
Automated Plasma Reconstruction at JET (McDonald)	*Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [1922]	14 pages
Code integration in IMP12 (Konz)	Code integration in IMP12 (C. Konz) [1923]	14 pages
Call for participation - 2010 Work programme (Coelho)	Call for Participation [1924]	14 pages
The ITM-TF Simulation Catalogue (Imbeaux)	ppt [1925]	14 pages
Status of MARS-F and CarMa codes on ITM (Yadykin)	ppt [1926]	14 pages
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Integration of heating and fast particles models (Johnson)	ppt [1929]	14 pages
ITER Hybrid Regime: modelling requests (Houlberg)	pdf [1930]	14 pages
Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch)	ppt [1931]	14 pages
Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch)	ppt [1932]	14 pages
Integrated edge modelling plans for ISM 2010/2011 (Wiesen)	pdf [1933]	14 pages
Benchmark the ETS/impurity code against SANCO (Belo)	pdf [1934]	14 pages
Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model (Fable)	pdf [1935]	14 pages

[1913] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_report.pdf
[1914] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/ACT1_ISM_Voitsekhovitch.pdf
[1915] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Voitsekhovitch_Feb22_2012.pdf
[1916] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/ITER_COREDIV_ISM_meeting_04_09_2013.pdf
[1917] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[1918] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[1919] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[1920] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[1921] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[1922] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[1923] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[1924] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf
[1925] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[1926] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[1927] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[1928] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[1929] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt
[1930] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[1931] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[1932] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[1933] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Wiesen.pdf
[1934] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Belo_ETSimpurity_pop.pdf
[1935] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Fable_TGLF_JET_ISM_8jun2011.pdf

title	link	size
Integrated ITER scenario modelling and density evolution prospects (Koechl)	pdf [1936]	14 pages
Introduction meeting 8 February 2012 (Litaudon)	pdf [1937]	14 pages
Modelling of ELM mitigation at JET (Koechl)	pdf [1938]	14 pages
Simulations with COREDIV code of DEMO discharges (Zagorski)	ppt [1939]	14 pages
Current density modelling in JET and JT-60U identity plasma experiments (Siren)	pdf [1940]	14 pages
Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch)	ppt [1941]	14 pages
Overview of EDRG results (Coelho)	ppt [1942]	14 pages
Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho)	ppt [1943]	14 pages
ISIP (Manduchi)	ppt [1944]	14 pages
Integration of heating and fast particles models and composite actor for the ETS (IMP5) (Jonsson)	ppt [1945]	14 pages
Overview of the European Integrated Tokamak Modelling Task Force (Falchetto)	pdf [1946]	14 pages
Exploitation and sustainability - (Par, David) (Coster)	pdf [1947]	14 pages
IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux)	*Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [1948]	15 pages
Introduction: IMAS requirements towards Plant system integration (Sauter)	*Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [1949]	15 pages
Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho)	Overview of EDRG for 2009 (R.Coelho) [1950]	15 pages
The European 3D Reflectometry code ERC3D - overview of structure (Lechte)	The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [1951]	15 pages
Annual Report 2009 (Coelho)	Annual Reporting [1952]	15 pages
Basics on exp2ITM usage. (Signoret)	presentation [1953]	15 pages
Exp2ITM : populate ITM database with experimental data (Signoret)	ppt [1954]	15 pages
Current rampdown at JET: experimental results and modelling tasks (Nunes)	pdf [1955]	15 pages
#77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl)	ppt [1956]	15 pages
Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar)	pdf [1957]	15 pages
ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch)	pdf [1958]	15 pages
Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch)	doc [1959]	15 pages

[1936] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Koechl.pdf
[1937] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Litaudon_introduction.pdf
[1938] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[1939] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt
[1940] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
[1941] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[1942] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[1943] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[1944] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[1945] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[1946] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[1947] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[1948] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[1949] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[1950] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[1951] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[1952] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[1953] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[1954] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Basics_on_exp2ITM_v2.ppt
[1955] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[1956] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JET_77922_77914_JETTO_Koechl.ppt
[1957] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[1958] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[1959] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt

title	link	size
Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail)	ppt [1960]	15 pages
Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov)	ppt [1961]	15 pages
Introduction meeting 25 January 2012 (Litaudon)	ppt [1962]	15 pages
DEMO preliminary scenario analysis: introduction and METIS simulations (Giruzzi)	ppt [1963]	15 pages
ISIP 2013 overview (Imbeaux)	ppt [1964]	15 pages
ITM-IMP4 Status & Achievements (Nielsen)	ppt [1965]	15 pages
Center for Simulations of Wave Interactions with MHD (SWIM) (Batchelor)	pdf [1966]	15 pages
EUFORIA - Brief Overview (Strand)	pdf [1967]	15 pages
Center for Extended MHD Modeling (CEMM) (Jardin)	pdf [1968]	15 pages
Universal Access Layer (Manduchi)	pdf [1969]	15 pages
IMP12 Kepler Workflows (Konz)	pdf [1970]	15 pages
SA2: HPC (Adrian) (Jackson)	pdf [1971]	15 pages
Edge CPO (Subba)	Edge CPO and grid structuring (F. Subba) [1972]	16 pages
Kepler actor generation from simulink components (Manduchi)	KEPLER Actor Generation from Simulink Components (G. Manduchi) [1973]	16 pages
Data structures in practice (Imbeaux)	Data Structures inPractice [1974]	16 pages
SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet)	ppt [1975]	16 pages
Introduction (Coster)	ppt [1976]	16 pages
Equilibrium Reconstruction with EQUAL (Zwingmann)	ppt [1977]	16 pages
IMP3 2009 Kick-Off (Coster)	pdf [1978]	16 pages
GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini)	pdf [1979]	16 pages
Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch)	ppt [1980]	16 pages
Validation ETS JET hybrid 77922: status and future work (Casper)	ppt [1981]	16 pages
Impact of W on current ramp-up phase in JET & ITER (Hogeweij)	pdf [1982]	16 pages
ITER Integrated Scenario Modelling needs (Loarte)	pptx [1983]	16 pages
RAPTOR capabilities for plasma simulation and control in ITER (Felici)	pdf [1984]	16 pages
Introduction meeting 19 January 2011 (Litaudon)	pdf [1985]	16 pages

[1960] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[1961] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[1962] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
[1963] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[1964] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[1965] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[1966] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[1967] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[1968] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[1969] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[1970] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[1971] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
[1972] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[1973] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/SimulinkActorGeneration.ppt
[1974] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[1975] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[1976] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/2010-03_WS-CC_ETS_v1.ppt
[1977] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[1978] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[1979] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[1980] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[1981] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[1982] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
[1983] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ISM_ITER_Modelling_needs.pptx
[1984] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_control_meeting.pdf
[1985] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Litaudon_introduction.pdf

title	link	size
Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail)	pdf [1986]	16 pages
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IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch)	pdf [1988]	16 pages
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ISM news and coming events, preparation to 2nd ISM working session 2013 (Voitsekhovitch)	pdf [2010]	17 pages

[1986] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Parail.pdf
[1987] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Militello.pdf
[1988] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Voitsekhovitch_IOS_summary.pdf
[1989] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[1990] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
[1991] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[1992] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[1993] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[1994] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
[1995] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[1996] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[1997] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[1998] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[1999] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt
[2000] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[2001] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[2002] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[2003] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
[2004] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/freebie_iter_may2012_ism.pdf
[2005] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/4.Thursday/Koechl_DEMO_test_modelling_with_JETTO.ppt
[2006] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/H-mode_jeronimo_nuclear_fusion_2.docx
[2007] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_10/Voitsekhovitch_DIIID.pdf
[2008] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/JURBAN_EPS_overview_ISM.pdf
[2009] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf
[2010] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Voitsekhovitch_Garcia_May23_2013.pdf

title	link	size
EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch)	ppt [2011]	17 pages
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Data coupling in the SWIM Framework: Plasma State (Batchelor)	*Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [2019]	18 pages
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[2011] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
[2012] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[2013] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[2014] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[2015] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[2016] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[2017] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[2018] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[2019] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[2020] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[2021] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[2022] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[2023] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[2024] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[2025] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[2026] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf
[2027] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/CasperISMtalkUtrechtJuly2011.pdf
[2028] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[2029] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[2030] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
[2031] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/2.Thursday/NBI_NUBEAM_FIN.ppt
[2032] https://www.efda-itm.eu/ITM/imports/itm/public/validation_procedure_appendix.pdf
[2033] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[2034] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt

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CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl)	pdf [2059]	20 pages

[2035] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[2036] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[2037] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[2038] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[2039] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[2040] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf
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[2043] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[2044] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Bizarro_Garching_Mar11_2013.pdf
[2045] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/baiocchi_ism.pptx
[2046] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Litaudon_introduction.pdf
[2047] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_03_02/ISM_WS_agenda-v4.ppt
[2048] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Goswami_july_25_2011.pdf
[2049] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Joffrin-07-09-2011.pdf
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[2053] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[2054] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[2055] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
[2056] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Voitsekhovitch_Garcia_ISMWS1.pdf
[2057] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Pinches_ISM_June_2013.pptx
[2058] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/1.Monday/Welcome_Agenda_3rdISM_WS.ppt
[2059] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Koechl_JET_77922_76858_CRONOS_JETTO_comp.pdf

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[2060] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Citrin_AUGandJETmodellingupdate_2742011.ppt
[2061] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Voitsekhovitch_GLF23benchmark_rotation.pdf
[2062] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[2063] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[2064] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[2065] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[2066] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
[2067] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[2068] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ITER_Integrated_Modelling_Expert_Group.pdf
[2069] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[2070] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Joffrin-ISM-29-11-2010.ppt
[2071] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
[2072] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_presentationJET_jeronimo.pptx
[2073] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
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[2075] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
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[2077] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
[2078] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
[2079] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/DMoreau_D3D093011.pdf
[2080] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt

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[2083] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
[2084] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
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[2089] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
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[2107] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[2108] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf
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[2110] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
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[2114] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[2115] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Garcia.pdf
[2116] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
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[2118] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[2119] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[2120] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
[2121] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/METIS_for_WEST_ISMmeeting_june13.pptx
[2122] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon-JT-60SA.ppt
[2123] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
[2124] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
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[2128] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[2129] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
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[2134] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[2135] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[2136] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[2137] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[2138] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
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[2143] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[2144] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[2145] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
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[2147] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[2148] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[2149] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
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[2159] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
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[2161] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[2162] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[2163] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[2164] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf
[2165] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[2166] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[2167] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[2168] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
[2169] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[2170] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[2171] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[2172] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/PresentatieISM.pdf
[2173] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
[2174] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[2175] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf
[2176] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[2177] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[2178] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[2179] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[2180] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf

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Storing Data on a Grid / AMNS (Coster)	ppt [2181]	55 pages
Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici)	pdf [2182]	57 pages
Overview of IMP3 activities during 2010 (Coster)	ppt [2183]	57 pages
Presentation to ISM about the ETS (Coster)	ppt [2184]	68 pages
ETS (Coster)	ppt [2185]	68 pages
The European Transport Solver (Coster)	Presentation at ICNSP-2009 on the ETS [2186]	71 pages
ADIOS 1.2 (Klasky)	pdf [2187]	75 pages
ETS Status and Standards (v1) (Coster)	pdf [2188]	83 pages
GForge AS Project Administrator Manual (GForge Group L.L.C.)	GForge AS Project Administrator Manual [2189]	94 pages
User Guide for the ETS (Coster)	ETS User Guide [2190]	99 pages
ETS: European Transport Solver - Current Status (Coster)	ETS Status [2191]	129 pages
GForge AS User Manual (GForge Group L.L.C.)	GForge AS User Manual [2192]	165 pages
ETS Doxyfile (Coster)	(PDF) [2193]	6171 pages

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.2 Documents (sorted by file size)

title	link	file size
Potential 3D codes for ITM (Konz)	Potential 3D codes for the ITM (C.Konz) [2194]	32K
Contents of the ITM public database (Imbeaux)	ITM PublicDatabase [2195]	32K
Gateway user agreement - invite (Strand)	(pdf) [2196]	32K
ITM Software License and rights (Coelho)	model licence [2197]	32K
UAL Tutorial (Imbeaux)	UAL tutorial [2198]	32K
Control Gantt Chart (Konz)	Gantt Chart [2199]	32K
DINA-CH workflow (Besseghir)	pdf [2200]	32K
Current ETS timeline (Gantt chart) (Coster)	(PDF) [2201]	32K
Agenda (Coster)	pdf [2202]	32K
Closure of equilibriumtransport set / Data flow (Pereverzev)	pdf [2203]	32K

[2181] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[2182] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/ISM_meeting_RAPTOR_talk.pdf
[2183] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[2184] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[2185] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[2186] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[2187] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[2188] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[2189] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[2190] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[2191] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[2192] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[2193] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf
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[2200] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
[2201] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[2202] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Agenda.pdf
[2203] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EqTrInterface.pdf

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EUFORIA Vision (EUFORIA)	pdf [2204]	32K
ETS Road Map (2009) (Coster)	doc [2205]	32K
Agenda (Voitsekhovitch)	ppt [2206]	32K
IOS/ITPA activities (Litaudon)	ppt [2207]	32K
Visualization Tools in the ITM (Coster)	ppt [2208]	32K
Minutes of the first ITM working session on control issues (Coelho)	Minutes of the working session (R.Coelho/T.Bolzonella) [2209]	64K
PF connections (Coelho)	PFconnections [2210]	64K
Gateway user agreement - invite (Strand)	(doc) [2211]	64K
XML2EQ (YAXFI) (Giovannozzi)	ppt [2212]	64K
Full tokamak simulation global workflow case study (Lister)	pdf [2213]	64K
Accuracy tests (Pereverzev)	pdf [2214]	64K
Requests to other projects (Coster)	doc [2215]	64K
Analysis of Runaway Electrons by Numerical Algorithms (Csepany)	pdf [2216]	64K
Report on paper on density and fuelling on ITER (Garzotti)	ppt [2217]	64K
Optimisation of operational space for long pulse scenarios (Polevoi)	doc [2218]	64K
Optimisation of operational space for long pulse scenarios: xml table (Polevoi)	xml [2219]	64K
Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk)	ppt [2220]	64K
Agenda (Litaudon)	pdf [2221]	64K
ACT1: Status of impurity modelling with ETS (Ivanova-Stanik)	ppt [2222]	64K
Validation exercise of the Kepler Workflow (Basiuk)	pdf [2223]	64K
Agenda (Strand)	pdf [2224]	64K
SA2: HPC (Adrian) (Jackson)	pdf [2225]	64K
SA3: User support (Adrian) (Jackson)	pdf [2226]	64K
MARS-F on ITM (Yadykin)	MARS-F on ITM (D. Yadykin) [2227]	96K
Summary discussion on ERC3D integration (Coelho)	Summary discussion (R. Coelho) [2228]	96K
ITM software policies and gateway user agreement (Strand)	(doc) [2229]	96K
Minutes of the ITM meeting on the implementation of controllers within the ITM simulation platform (Konz)	Minutes ofthe meeting on control in March 2010 [2230]	96K

[2204] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/
[2205] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc
[2206] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Agenda_DT.ppt
[2207] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/IOS_modelling.ppt
[2208] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[2209] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[2210] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[2211] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[2212] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[2213] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[2214] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/AccuracyAssessment.pdf
[2215] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[2216] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf
[2217] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[2218] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[2219] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[2220] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[2221] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ISM_agenda_WS_May_2012.pdf
[2222] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Irena_ACT1_report.pdf
[2223] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Basiuk.pdf
[2224] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[2225] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
[2226] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA3.pdf
[2227] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[2228] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[2229] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[2230] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf

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Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz)	pdf [2231]	96K
ETS Numerics Quality Assessment / Verification (Pereverzev)	pdf [2232]	96K
ETS benchmarking and verification: Intermediate report (ASTRA results) (Pereverzev)	pdf [2233]	96K
Proposal for ETS verification and benchmarking procedure (Pereverzev)	pdf [2234]	96K
Current diffusion analysis on JET hybrid shots (Garcia)	pdf [2235]	96K
Update on the collaboration project for the analysis of JT60U and JET shots (Garcia)	pdf [2236]	96K
Agenda (Voitsekhovitch)	pdf [2237]	96K
Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen)	pdf [2238]	96K
Analysis of the hybrid shot 77280 (Garcia)	pdf [2239]	96K
Short update on particle transport modelling following EPS conference (Garzotti)	pdf [2240]	96K
Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand)	Validation Procedure (Draft) [2241]	96K
NA2: Training (Adrian) (Jackson)	pdf [2242]	96K
Introduction (Houlberg)	*Introduction, W. Houlberg 10 min.* [2243]	128K
Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster)	pdf [2244]	128K
New angles for the line integrated signals. (Coelho)	report [2245]	128K
ITM software policies and gateway user agreement (Strand)	(pdf) [2246]	128K
Standardized equations (unknown)	Form of the standardizeequations [2247]	128K
Plans for development and release of SOLPS-ITER (Bonnin)	ppt [2248]	128K
Work plan and Resources for the ETS in 2009 (Coster)	doc [2249]	128K
Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof)	pdf [2250]	128K
Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher)	pdf [2251]	128K
Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi)	doc [2252]	128K
Agenda (Litaudon)	doc [2253]	128K
#77922: current ramp-down (Koechl)	ppt [2254]	128K
Proposals for ETS validation on JET Hybrid discharges (Garcia)	pdf [2255]	128K

[2231] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Minutes_FBE_Transport_2010.pdf
[2232] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/CodeCampPereverzev.pdf
[2233] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/BenchmarkAstra.pdf
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[2235] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/hybrid_garcia_ism_meeting.pdf
[2236] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/JAEA_update.pdf
[2237] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Agenda_ISM_ws_June7_2013.pdf
[2238] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/PresentatieISM.pdf
[2239] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Garcia_77280v2.pdf
[2240] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Garzotti_24Oct2012.pdf
[2241] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
[2242] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
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[2244] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
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[2250] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[2251] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Steinbrecher_ITM-GM2010.pdf
[2252] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[2253] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
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[2255] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Garcia_hybrid.pdf

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Density simulation in JET HS (Garzotti)	pdf [2256]	128K
AMNS work (Eriksson)	ppt [2257]	160K
IMP5 tools in 4.09a (Johnson)	pdf [2258]	160K
ITER hybrid density modelling: current status (Koechl)	ppt [2259]	160K
Agenda (Litaudon)	pdf [2260]	160K
Analysis of current diffusion with ILW (Garcia)	pptx [2261]	160K
Modelling pellet fuelling (but not only) for ITER (Garzotti)	pptx [2262]	160K
Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch)	pdf [2263]	160K
Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia)	pdf [2264]	160K
CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl)	pdf [2265]	160K
Optimisation of operational phase for long-pulse scenarios (Polevoi)	pdf [2266]	160K
Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch)	pdf [2267]	160K
Optimization of current ramp up phase for hybrid ITER discharges (EPS 2011) (Hogeweij)	pdf [2268]	160K
Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova-Stanik)	pdf [2269]	160K
PRACE (Ottaviani)	pps [2270]	160K
JRA2 Code adaptation for HPC (Adrian) (Jackson)	pdf [2271]	160K
Exploitation and sustainability - (Par, David) (Coster)	pdf [2272]	160K
Edge and Scrape-off Layer integration (Bisai)	*Edge and Scrape-off Layer integration, N. Bisai (20+10)* [2273]	192K
Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage)	pdf [2274]	192K
EFDA Feedback control group - general information and activities (Mazon)	EFDA Feedback Control Goup summary (A.Pironti) [2275]	192K
Summary of the 3D machine descriptions WS in Garching (Coelho)	Minutes (R. Coelho) [2276]	192K
Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher)	pdf [2277]	192K
Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini)	EC benchmarking in 2014 [2278]	192K
Report on 2014 NBI benchmarks (Schneider)	NBI benchmarking in 2014 [2279]	192K
Current diffusion analysis on JET hybrid shots (Garcia)	pdf [2280]	192K
Ex -2.2.5: Radiating type III ELMy H-mode (Huber)	ppt [2281]	192K

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[2258] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
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[2261] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[2262] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_pellet_fuelling.pptx
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[2472] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[2473] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Litaudon.pdf
[2474] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[2475] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[2476] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Militello.pdf
[2477] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/WP1213_summary_EF.pdf
[2478] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[2479] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
[2480] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[2481] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[2482] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Belo_LH_and_HL_transition.ppt
[2483] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx

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JRA4: visualization (Olivier) (Hoenen)	pdf [2484]	704K
Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond)	Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [2485]	736K
CREATE-NL adaptation to ITM needs (Mattei)	CREATE-NL adaptation to ITM need (M. Mattei) [2486]	736K
Fast ICRH code for routine analysis (Hellsten)	pdf [2487]	736K
Update on hybrid scenario (Garcia)	ppt [2488]	736K
IOS-TG Ramp-up simulation Task: C - Be-W (Sips)	ppt [2489]	736K
COREDIV physicsl model (Stankiewicz)	pdf [2490]	736K
Role of Fast Ions on JET Hybrid Scenarios (Garcia)	ppt [2491]	736K
ACT1 restart (Voitsekhovitch)	pdf [2492]	736K
Approach on parallel I/O (Galonska)	Approach on parallel I/O (A. Galonska) [2493]	768K
Using XML for code specific parameters (Konz)	Fortran XML Parser: [2494]	768K
ITER Integrated Modelling Expert Group - a brief overview (Strand)	pdf [2495]	768K
Current status of the ETS (present at the JET TFT meeting) (Coster)	pdf [2496]	768K
Report on AUG modelling (Hobirk)	ppt [2497]	768K
Agenda (Voitsekhovitch)	ppt [2498]	768K
Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch)	ppt [2499]	768K
Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter)	CAD fix to Physics Codes (W.Arter) [2500]	800K
Free boundary equilibrium code CEDRES++ (Blum)	pdf [2501]	800K
European Transport Workflows - first results, validation and benchmark (Basiuk)	pdf [2502]	800K
ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl)	ppt [2503]	800K
ETS validation (Basiuk)	ppt [2504]	800K
ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik)	ppt [2505]	800K
Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter)	*Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [2506]	832K
Lessons learned from DINA-CH simulator (Duval)	*Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [2507]	832K
Sawteeth and Neoclassical Tearing Modes Workflows (Sauter)	ppt [2508]	832K

[2484] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
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[2486] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
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[2490] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Corediv_model.pdf
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[2492] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf
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[2501] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[2502] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[2503] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[2504] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[2505] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/CODE_camp_ISM_JET-report.ppt
[2506] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[2507] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[2508] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt

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Introduction (Litaudon)	ppt [2509]	832K
Comparative transport analysis of JET and JT-60U discharges (Garcia)	pptx [2510]	832K
Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO (Voitsekhovitch)	pdf [2511]	832K
Introduction meeting 25 January 2012 (Litaudon)	ppt [2512]	832K
The EFDA HPC Project (Hatzky)	pdf [2513]	832K
Code Specific Parameters (Konz)	pdf [2514]	832K
Exercises (Guillerminet)	Kepler Exercises: [2515]	864K
ETS Status and Standards (reduced) (Coster)	ppt [2516]	864K
ITER Hybrid Regime: modelling requests (Houlberg)	pdf [2517]	864K
Task Force meeting on scenario modelling: introduction (Joffrin)	ppt [2518]	864K
ARTAEMIS:Plasma response models and profile control in ITER (Liu)	ppt [2519]	864K
Pulse list for C29 and C30 (Joffrin)	ppt [2520]	864K
Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch)	ppt [2521]	864K
Progress on simulations of density profiles in hybrid plasmas (Garzotti)	pptx [2522]	864K
Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand)	*Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [2523]	896K
DINA-CH and CRONOS: Full tokamak discharge simulator (Kim)	pdf [2524]	896K
Modelling of hybrid regime - present status (Parail)	pdf [2525]	896K
Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives (Voitsekhovitch)	ppt [2526]	896K
Introduction meeting 6 April 2011 (Litaudon)	ppt [2527]	896K
A new free-boundary equilibrium evolution code, FREEBIE (Kim)	pdf [2528]	896K
Role of fast ions in hybrid scenarios (Garcia)	pdf [2529]	896K
Free-Boundary Modeling of NSTX Plasmas (Jardin)	pdf [2530]	896K
Demonstration/Discussion (Antonio, David T) (Tskhakaya)	pdf [2531]	896K
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Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch)	ppt [2533]	928K

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[2511] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Voitsekhovitch_GLF23benchmark_rotation.pdf
[2512] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
[2513] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[2514] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[2515] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[2516] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
[2517] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[2518] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
[2519] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[2520] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[2521] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/2.Thursday/NBI_NUBEAM_FIN.ppt
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[2526] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt
[2527] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Litaudon_introduction.ppt
[2528] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf
[2529] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
[2530] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
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[2532] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[2533] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Voitsekhovitch_ISMWS_Nov2011.ppt

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Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik)	ppt [2534]	928K
Grid generation for Cedres++ (Boulbe)	CEDRES++ full 2D domain meshing (G.Huysmans) [2535]	960K
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General information and preparation to the ISM working session November 7-11 2011 (Voitsekhovitch)	ppt [2539]	960K
IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch)	pdf [2540]	960K
Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux)	*Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [2541]	992K
Full-wave modelling of electromagnetic wave propagation with the code FWTOR (Tsironis)	pdf [2542]	992K
Update on AUG/JET modelling (Citrin)	ppt [2543]	992K
STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle)	pptx [2544]	992K
Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi)	pdf [2545]	992K
Agenda (IMT)	*Agenda* [2546]	1.0M
Data structures in practice (Imbeaux)	Data Structures inPractice [2547]	1.0M
Predictive simulations of JT60-SA (Garzotti)	ppt [2548]	1.0M
INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013 (Voitsekhovitch)	pdf [2549]	1.0M
IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux)	*Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [2550]	1.1M
Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch)	ppt [2551]	1.1M
ACT2: JET current ramp up/down modelling (Hogeweij)	pdf [2552]	1.1M
Use Cases and Outline of the Requirements (Imbeaux)	*Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [2553]	1.1M
Introduction: IMAS requirements towards Plant system integration (Sauter)	*Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [2554]	1.1M
IMP1 task2 kick-off meeting - Intro (Huysmans)	IMP1 control related activities (G.Huysmans) [2555]	1.1M
Movie: DINA plasma boundary (Lister)	mpg [2556]	1.1M
IMP5: Energetic Particles (Vlad)	pdf [2557]	1.1M

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[2537] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[2538] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[2539] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[2540] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Voitsekhovitch_IOS_summary.pdf
[2541] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[2542] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[2543] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
[2544] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/METIS_for_WEST_ISMmeeting_june13.pptx
[2545] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[2546] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[2547] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[2548] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
[2549] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
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[2552] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Hogeweij_7june2013.pdf
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[2554] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
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The EU ITM-TF effort - Achievements and First Physics Results (Falchetto)	pdf [2560]	1.1M
Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi)	pdf [2561]	1.1M
Status of MARS-F and CarMa codes on ITM (Yadykin)	ppt [2562]	1.1M
Current ramp-up wrapup and publication (Imbeaux)	ppt [2563]	1.1M
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Recent experiences with CAD to neutronics and physics code conversion (Arter)	CAD to Physics Codes (W.Arter) [2570]	1.2M
The ITM-TF Simulation Catalogue (Imbeaux)	ppt [2571]	1.2M
Status of grids in CPOS + edge CPOS (Subba)	ppt [2572]	1.2M
Core-SOL Modelling of ELM mitigation at JET (Koechl)	pdf [2573]	1.2M
Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon)	pdf [2574]	1.2M
Optimizing the current ramp-up phase for the hybrid ITER scenario (Hogeweij)	pdf [2575]	1.2M
Center for Simulations of Wave Interactions with MHD (SWIM) (Batchelor)	pdf [2576]	1.2M
Nuclear reactions (Kiptily)	pdf [2577]	1.2M
ETS_C training 2011 (Huynh)	training 2011 [2578]	1.2M
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Validation ETS JET hybrid 77922: status and future work (Casper)	ppt [2580]	1.2M
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Overview of ISM activities during 2010 (Litaudon)	ppt [2582]	1.2M
EU ITM-TF experience with Kepler (Falchetto)	*EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [2583]	1.2M

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[2559] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/4.Thursday/Koechl_DEMO_test_modelling_with_JETTO.ppt
[2560] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
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[2562] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[2563] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[2564] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[2565] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Bizarro_Garching_Mar11_2013.pdf
[2566] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Koechl_ne_depletion_with_mitigated_ELMs.ppt
[2567] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
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[2572] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[2573] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Koechl_ELM_mitigation.pdf
[2574] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_ITPA.pdf
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[2581] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[2582] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
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ITM control workflow concepts (Imbeaux)	ITM control workflow concepts (F.Imbeaux) [2584]	1.2M
Machine Description User Guide. (Imbeaux)	User Guide [2585]	1.2M
EUFORIA - Brief Overview (Strand)	pdf [2586]	1.2M
DINA-CH full tokamak simulator (Lister)	pdf [2587]	1.3M
The ITM general grid description: A tutorial (Klingshirn)	pdf [2588]	1.3M
Integrated core-edge modelling for JET Hybrid scenario (Belo)	ppt [2589]	1.3M
DEMO preliminary scenario analysis: introduction and METIS simulations (Giruzzi)	ppt [2590]	1.3M
Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang)	pdf [2591]	1.3M
JRA3: workflows (Bernard) (Guillerminet)	pdf [2592]	1.3M
Current ramp up in JET hybrid scenarios (Voitsekhovitch)	pdf [2593]	1.3M
JET and JT-60U current profile modelling with identity plasma experiments (Siren)	pptx [2594]	1.3M
Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia)	docx [2595]	1.3M
Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti)	pdf [2596]	1.3M
IMP12 Kepler Workflows (Konz)	pdf [2597]	1.3M
Impurity concentration during the current ramp up (Belo)	ppt [2598]	1.3M
Mixed grid HPC Workflow (Antonio) (Gomez)	pdf [2599]	1.3M
Comparison of scientific workflow engines (Guillerminet)	*Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [2600]	1.4M
Update on FIXFREE and CREATE-NL (Calabrò)	ppt [2601]	1.4M
Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon)	ppt [2602]	1.4M
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First CRONOS simulation of JT60-SA (Schneider)	pdf [2604]	1.4M
SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik)	ppt [2605]	1.4M
Analysis and modelling of JET and JT-60U discharges (Garcia)	pptx [2606]	1.4M
Simulations with COREDIV code of DEMO discharges (Zagorski)	ppt [2607]	1.4M

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[2584] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[2585] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[2586] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
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[2589] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[2590] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[2591] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
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[2594] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[2595] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/H-mode_jeronimo_nuclear_fusion_2.docx
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[2597] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[2598] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[2599] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[2600] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[2601] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[2602] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_03_02/ISM_WS_agenda-v4.ppt
[2603] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
[2604] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf
[2605] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
[2606] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/JET_JT60U_jeronimo_ISM.pptx
[2607] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt

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EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch)	ppt [2608]	1.4M
Data Mapping User Guide (Signoret)	User Guide [2609]	1.4M
ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk)	pdf [2610]	1.4M
Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch)	ppt [2611]	1.4M
ISIP (Manduchi)	ppt [2612]	1.4M
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RAPTOR-based real-time observer: first ITER demonstration (Felici)	pdf [2616]	1.5M
Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch)	pdf [2617]	1.5M
Current density modelling in JET and JT-60U identity plasma experiments (Siren)	pdf [2618]	1.5M
JETTO Run to Benchmark ETS Neutrals Package (Nave)	pdf [2619]	1.5M
Predictive transport analysis of JET and AUG hybrid scenarios (EPS 2011) (Citrin)	pdf [2620]	1.5M
Edge CPO (Subba)	Edge CPO and grid structuring (F. Subba) [2621]	1.5M
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JRA1 Codea adaptation for grid (Paco) (Castejon)	pdf [2623]	1.5M
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HPC2K - GRID and HPC Actor Generator (Guillerminet)	ppt [2625]	1.5M
Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch)	ppt [2626]	1.5M
Pulses for analysis with the ILW (Joffrin)	ppt [2627]	1.6M
Introduction meeting 27 April 2011 (Litaudon)	pdf [2628]	1.6M
Exp2ITM : populate ITM database with experimental data (Signoret)	ppt [2629]	1.6M
Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi)	pptx [2630]	1.6M
Consistent Physical Objects - A data structure concept for Integrated Modelling (Imbeaux)	ppt [2631]	1.6M
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[2609] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
[2610] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[2611] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[2612] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
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[2616] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/ISM_final_presentation_ffelici.pdf
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[2620] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Citrin-EPS2011_5slidesummary.pdf
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[2628] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Litaudon_introduction_v2.pdf
[2629] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Basics_on_exp2ITM_v2.ppt
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[2631] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
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Characterization of L-mode domain (Frigione)	ppt [2634]	1.6M
SOAF Framework (Hayashi)	*[PDF]* [2635]	1.7M
Call for participation - 2009 Work programme (Coelho)	Call for Participation [2636]	1.7M
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Predictive modelling of current ramp-down in JET discharges (Lonnroth)	pdf [2638]	1.7M
JETTO Run to Benchmark ETS Neutrals Package (Nave)	ppt [2639]	1.7M
Distributed Resources in Kepler (Plociennik)	ppt [2640]	1.7M
SA1: Grid (Marcus) (Hardt)	pdf [2641]	1.7M
Update on current ramp up modelling (T&C ITPA meeting) (Voitsekhovitch)	pdf [2642]	1.7M
Equilibrium Reconstruction with EQUAL (Zwingmann)	ppt [2643]	1.7M
Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz)	Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [2644]	1.8M
IMP5: ITM tools a quick start (Johnson)	pdf [2645]	1.8M
Current ramp up in ITER: effects of impurity density (Hogeweij)	pdf [2646]	1.8M
Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model (Fable)	pdf [2647]	1.8M
SWIM Framework (Elwasif)	*SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [2648]	1.8M
Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann)	pdf [2649]	1.8M
Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij)	ppt [2650]	1.8M
RAPTOR capabilities for plasma simulation and control in ITER (Felici)	pdf [2651]	1.8M
Predictive transport analysis of JET and AUG hybrid scenarios (Citrin)	ppt [2652]	1.8M
Overview of AMNS activities during 2010 (Eriksson)	ppt [2653]	1.8M
Modeling development for control for ITER advanced scenarios (Casper)	pdf [2654]	1.8M
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[2640] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
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[2656] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
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Modeling, simulation, and controller design using SciCosLab and Kepler (Mannori)	Modeling, simulation, and controler design using SciCosLab and Kepler (S. Mannori) [2661]	1.9M
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Hybrid experiments for ISM modelling (Joffrin)	ppt [2663]	2.0M
Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi)	pdf [2664]	2.0M
Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch)	pdf [2665]	2.0M
Introduction and IOS-ITPA 2012 summary (Litaudon)	pdf [2666]	2.0M
ITM-IMP4 Status & Achievements (Nielsen)	ppt [2667]	2.1M
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Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles (Vlad)	pdf [2675]	2.1M
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Introduction and ISM IAEA Modelling of Hybrid Scenario: from present-day experiments toward ITER (Litaudon)	pdf [2677]	2.1M
LSDF - Large Scale Data Facility at KIT (Hardt)	pdf [2678]	2.1M
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[2658] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
[2659] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[2660] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[2661] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[2662] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt
[2663] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Joffrin-ISM-29-11-2010.ppt
[2664] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/2.Tuesday/baiocchi_ISM_03_12_2013_.pdf
[2665] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Voitsekhovitch_Feb22_2012.pdf
[2666] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Litaudon_introduction_summaryITPA.pdf
[2667] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[2668] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[2669] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISIP.ppt
[2670] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[2671] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[2672] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[2673] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[2674] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[2675] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_HMGC_HYMAGYC_ITM_GM2010.pdf
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[2677] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf
[2678] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[2679] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[2680] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[2681] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[2682] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt

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Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch)	doc [2683]	2.2M
ISIP (ITM)	*ISIP* [2684]	2.2M
ISM (ITM)	*ISM* [2685]	2.2M
Progress in the simulation of JET hybrid pulse 77922 with the European Transport Solver (Figueiredo)	pdf [2686]	2.2M
ISIP 2013 overview (Imbeaux)	ppt [2687]	2.2M
Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet)	ppt [2688]	2.2M
Introduction Impact of EUFORIA (Pr, David) (Strand)	pdf [2689]	2.2M
ITM (ITM)	*ITM* [2690]	2.3M
EFDA Feedback control - working group activities and perspectives (Mazon)	Feedback Control WG ongoing effort (D. Mazon) [2691]	2.3M
Basics on exp2ITM usage. (Signoret)	presentation [2692]	2.3M
Automated Plasma Reconstruction at JET (McDonald)	*Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [2693]	2.3M
Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch)	ppt [2694]	2.3M
Integrated Modelling in ITER (Houlberg)	ppt [2695]	2.3M
Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu)	ppt [2696]	2.3M
GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini)	pdf [2697]	2.3M
Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch)	ppt [2698]	2.3M
Predictive transport analysis of JET and AUG hybrid scenarios (Citrin)	ppt [2699]	2.3M
Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar)	pdf [2700]	2.3M
Linear gyro-kinetic analysis with GYRO code for shot 77922 (Moradi)	pdf [2701]	2.3M
NA3: Dissemination (Miguel) (Cardenas)	pdf [2702]	2.3M
JINTRAC capabilities for integrated core - edge modelling (Romanelli)	ppt [2703]	2.4M
ITER Integrated Modelling Tools: Status and Outlook (Pinches)	pptx [2704]	2.4M
IMP5: Energetic Particles (Vlad)	ppt [2705]	2.4M
ITM Overview (Falchetto)	ppt [2706]	2.4M
ISIP tools training (Guillerminet)	Kepler Tutorial: [2707]	2.5M
IMP5 CPOs (Johnson)	pdf [2708]	2.5M

[2683] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
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[2685] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[2686] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Figueiredo_24Oct2012.pdf
[2687] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[2688] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[2689] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
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[2691] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[2692] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[2693] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[2694] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/1.Monday/Welcome_Agenda_3rdISM_WS.ppt
[2695] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[2696] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[2697] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[2698] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[2699] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[2700] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[2701] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[2702] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[2703] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[2704] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Pinches_ISM_June_2013.pptx
[2705] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[2706] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[2707] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[2708] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf

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Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch)	ppt [2709]	2.5M
Modelling of JET hybrid scenarios with the European Transport Solver (Figueiredo)	pdf [2710]	2.5M
Impact of W on current ramp-up phase in JET & ITER (Hogeweij)	pdf [2711]	2.5M
Pellet DEMO (Garzotti)	ppt [2712]	2.5M
Multiplexing/Demultiplexing actors (Hoenen)	Multiplexer/De-multiplexer (O. Hoenon) [2713]	2.6M
ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo)	pdf [2714]	2.6M
Equilibrium and MHD stability chain (IMP12) (Zwingmann)	ppt [2715]	2.6M
Role of impurities in ITER-like ramp up in JET (Hogeweij)	pdf [2716]	2.6M
Equilibrium, MHD, and Disruptions (Giovannozzi)	ppt [2717]	2.6M
Cross project session on Control (Bolzonella)	ppt [2718]	2.6M
Edge modelling resources - November 2011 (Groth)	ppt [2719]	2.6M
The ITM General Grid Description (Klingshirn)	ppt [2720]	2.7M
Fully predictive modelling of L-H and H-L transition (Parail)	ppt [2721]	2.8M
Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet)	ppt [2722]	2.8M
Integration of heating and fast particles models (Johnson)	ppt [2723]	2.8M
Integration of heating and fast particles models and composite actor for the ETS (IMP5) (Jonsson)	ppt [2724]	2.8M
IMP12 Equilibrium and Stability (ITM)	*IMP12 Equilibrium and Stability* [2725]	2.9M
Quick introduction to documentation with Doxygen (Johnson)	pdf [2726]	2.9M
ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik)	ppt [2727]	2.9M
Introduction (Coster)	ppt [2728]	2.9M
Local information (Koechl)	ppt [2729]	2.9M
JT-60SA scenario modelling (Litaudon)	ppt [2730]	3.0M
Present ITM capabilities (Coster)	ppt [2731]	3.0M
Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen)	pdf [2732]	3.0M
EU ITM-TF experience with CPOs (Coster)	*EU ITM-TF experience with CPOs, D. Coster (20+10)* [2733]	3.1M

[2709] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[2710] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Figueiredo.pdf
[2711] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
[2712] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Demo_fuel_cycle_meeting_29_11_2011.ppt
[2713] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt
[2714] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Figueiredo.pdf
[2715] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[2716] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[2717] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[2718] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[2719] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[2720] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[2721] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
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[2723] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt
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[2732] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[2733] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt

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Computational efficiently and simulation architecture (Courquet)	*Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [2734]	3.1M
ADIOS 1.2 (Klasky)	pdf [2735]	3.1M
Kepler workflow design and directors (Guillerminet)	Kepler workflow design and directors (29) (B. Guillerminet) [2736]	3.1M
Status of the scenario analysis and modelling work for C29 and C30 (Joffrin)	ppt [2737]	3.1M
H-mode baseline scenario at 2.5 MA (Bucalossi)	ppt [2738]	3.2M
Optimization of the EC Launchers (Henderson)	pdf [2739]	3.2M
Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho)	Overview of EDRG for 2009 (R.Coelho) [2740]	3.3M
ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho)	General ITM overview (R.Coelho) [2741]	3.3M
First modelling of JT-60SA (Giruzzi)	ppt [2742]	3.3M
ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho)	EDRG Control related activities in the WP-2010 (R. Coelho) [2743]	3.3M
User Guide for the ETS (Coster)	ETS User Guide [2744]	3.3M
ITM-TF Status and 2013 WorkPlan (Falchetto)	ppt [2745]	3.3M
Overview of IMP5 activities during 2010 (Farina)	ppt [2746]	3.4M
European Reflectometer Code Consortium (ERCC) activities (Blanco)	ppt [2747]	3.5M
ITM-TF plasma control working session (Coelho)	Welcome (R.Coelho) [2748]	3.5M
ITER Integrated Scenario Modelling needs (Loarte)	pptx [2749]	3.5M
The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif)	pdf [2750]	3.5M
Training: The IMP5HCD workflow (Johnson)	pdf [2751]	3.5M
Present status of the General Grid Description and related software (IMP3) (Klingshirn)	ppt [2752]	3.5M
Overview of EDRG results (Coelho)	ppt [2753]	3.5M
IMP3 Edge (ITM)	*IMP3 Edge* [2754]	3.6M
Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho)	Agenda and 3D related tasks (R.Coelho) [2755]	3.6M
Validation and verification of the European Transport Solver (Kalupin)	pdf [2756]	3.7M
Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail)	pdf [2757]	3.7M
Automated Plasma Reconstruction at LHD (Yokoyama)	*Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [2758]	3.7M

[2734] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[2735] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[2736] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[2737] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
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[2739] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Henderson_ITER_scenarios_EC.pdf
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[2742] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
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[2750] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[2751] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
[2752] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
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On the modeling of drift fluxes with self-consistent electric field in the SOLPS code (Maj)	pdf [2759]	3.7M
NBI simulations for DEMO1 (Baruzzo)	ppt [2760]	3.7M
RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici)	pdf [2761]	3.8M
Convergence and accuracy of coupled FV/MC codes (Baelmans)	ppt [2762]	3.8M
Overview of ISIP activities during 2010 (Imbeaux)	ppt [2763]	3.9M
IMP3 Core (ITM)	*IMP3 Core* [2764]	3.9M
ITM gateway user's guide (Guillerminet)	Gateway User'sGuide: [2765]	3.9M
ITM gateway users's guid (Guillerminet)	pdf [2766]	3.9M
Fast Particles activities during WP10 (Vlad)	pdf [2767]	4.0M
Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban)	pdf [2768]	4.0M
Kepler (Altintas)	*Kepler, I. Altintas (20 + 10)* [2769]	4.1M
INTEGRATED SCENARIO MODELLING (summary of ISM group activities for 2012) (Litaudon)	ppt [2770]	4.1M
Climate modeling Framework (Denvil)	*Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [2771]	4.1M
3D Machine Description of Fusion Devices (Lunt)	pdf [2772]	4.1M
Simulations of the H to L transition in JET plasmas (Belo)	ppt [2773]	4.1M
Corisca simulations of ITER hybrid mode operation (Casper)	ppt [2774]	4.1M
Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol)	*Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [2775]	4.1M
Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici)	pdf [2776]	4.1M
IMP3: Transport Code and Discharge Evolution (Coster)	ppt [2777]	4.1M
Storing Data on a Grid / AMNS (Coster)	ppt [2778]	4.1M
Meshing strategy guidelines (Palumbo)	3D Meshing strategies guidelines in RWM codes (M. Palumbo) [2779]	4.2M
Integrated core+edge+MHD modelling of ELM mitigation at JET (Koechl)	ppt [2780]	4.2M
ITM datastructure and tools (Coelho)	ITM datastructure and tools (R. Coelho) [2781]	4.3M
AMNS (Coster)	ppt [2782]	4.3M

[2759] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[2760] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt
[2761] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[2762] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[2763] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[2764] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[2765] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITM_gateway_users_guide_v3-1.pdf
[2766] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
[2767] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[2768] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/JURBAN_EPS_overview_ISM.pdf
[2769] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[2770] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[2771] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[2772] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[2773] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[2774] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[2775] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[2776] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/ISM_meeting_RAPTOR_talk.pdf
[2777] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[2778] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[2779] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[2780] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Koechl_ISM_modelling_of_ELM_mitigation_at_JET.ppt
[2781] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[2782] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt

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SELFO-light and advanced Fokker-Planck developments (Hellsten)	ppt [2783]	4.3M
Annual Report 2010 (Coelho)	Annual Reporting [2784]	4.4M
H-L transition with ITER like wall (Belo)	ppt [2785]	4.4M
ITM-TF plasma control working session and code camp (Bolzonella)	Welcome and Agenda (T. Bolzonella) [2786]	4.5M
Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch)	pdf [2787]	4.5M
LHCD simulation by ASTRA/FRTC of JET discharges (Barbato)	pdf [2788]	4.5M
Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho)	Overview of ITM datastructure heading to 3D (R. Coelho) [2789]	4.5M
ITER Needs and Requirements (Houlberg)	ppt [2790]	4.5M
Linear Stability Chain in the new gateway (Nabais)	ppt [2791]	4.6M
Overview of IMP12 activities during 2010 (Ottaviani)	pps [2792]	4.6M
FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly)	pdf [2793]	4.7M
The Mapper project (Lorenz)	*The Mapper project, E. Lorenz (20+10)* [2794]	4.8M
ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009) (Coster)	pdf [2795]	4.8M
ITM-TF Status and Achievements (Falchetto)	ppt [2796]	4.8M
Parallel I/O in Simulation Workflows (Galonska)	ppt [2797]	4.8M
The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations (Batchelor)	pdf [2798]	5.0M
Integrated Tokamak Modelling TF (Strand)	Par Strand's RUSA 2009 Presentation [2799]	5.1M
IMP5 2013 overview (Farina)	ppt [2800]	5.2M
ITPA summary (Garcia)	ppt [2801]	5.3M
European Transport Solver (Coster)	pdf [2802]	5.3M
EUFORIA (EUFORIA)	*EUFORIA* [2803]	5.3M
Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux)	ppt [2804]	5.3M
Movie: CEDRES++ isoflux (Blum)	mpg [2805]	5.4M
Coupling between CREATE-NL and JINTRAC (Koechl)	ppt [2806]	5.5M
IMP3 (Coster)	ppt [2807]	5.5M

[2783] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[2784] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf
[2785] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ILW_paula.ppt
[2786] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[2787] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Voitsekhovitch_GMinfo_plans.pdf
[2788] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[2789] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[2790] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[2791] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Nabais.ppt
[2792] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[2793] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[2794] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf
[2795] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[2796] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[2797] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[2798] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
[2799] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.ppt
[2800] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
[2801] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[2802] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[2803] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[2804] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt
[2805] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/isoflux_ITER_T53000_5ms.mpg
[2806] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
[2807] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt

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ASTRA-7 a state-of-the-art IPP transport code (Fable)	pdf [2808]	5.6M
IMP5-I (ITM)	*IMP5-I* [2809]	5.6M
Talk given at the JET TF-T Meeting earlier in the year on the ETS (Coster)	ppt [2810]	5.7M
Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison)	ppt [2811]	5.7M
AMNS + IMP3 (Coster)	ppt [2812]	5.9M
Wall proximity and shape validation in H-mode (Challis)	ppt [2813]	6.0M
GForge AS Project Administrator Manual (GForge Group L.L.C.)	GForge AS Project Administrator Manual [2814]	6.0M
3D wall description of fusion devices (Lunt)	3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [2815]	6.1M
Code integration in IMP12 (Konz)	Code integration in IMP12 (C. Konz) [2816]	6.1M
Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro)	doc [2817]	6.1M
Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control (Hogeweij)	ppt [2818]	6.1M
Demo on ETS workflow capabilities (Kalupin)	ppt [2819]	6.1M
Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail)	ppt [2820]	6.2M
Advanced Scicos, Kepler, and Simulink integration (Mannori)	Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [2821]	6.3M
JET DT fusion yield projections (Challis)	ppt [2822]	6.5M
IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson)	pdf [2823]	6.7M
Coupling CAD data to Simulations (Courquet)	*Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [2824]	6.7M
IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson)	pdf [2825]	6.7M
JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi)	ppt [2826]	6.8M
Running ETS in KEPLER (Kalupin)	User Guide [2827]	7.0M
Taverna (Soiland-Reyes)	*Taverna, S. Soiland-Reyes (20 + 10)* [2828]	7.2M
Integrated ITER scenario modelling and density evolution prospects (Wiesen)	ppt [2829]	7.2M
Current rampdown at JET: experimental results and modelling tasks (Nunes)	pdf [2830]	7.3M
IMP5: Energetic Particles (Vlad)	pdf [2831]	7.4M

[2808] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
[2809] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[2810] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[2811] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[2812] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[2813] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[2814] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[2815] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[2816] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[2817] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[2818] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt
[2819] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
[2820] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[2821] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf
[2822] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Challis_DT_fusion_yield_projections_ISM_30Nov2010.ppt
[2823] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.pdf
[2824] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[2825] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.pdf
[2826] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
[2827] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[2828] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
[2829] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[2830] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[2831] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf

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Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk)	ppt [2832]	7.4M
IMP12 at the end of 2013 (Yadikin)	ppt [2833]	7.8M
EFDA Transport Topical Group: survey of research activities (Angioni)	ppt [2834]	7.9M
ITM Workflows (Coster)	ppt [2835]	7.9M
Workflows (Coster)	ppt [2836]	8.0M
Strategies for collaborative Design and Validation (Courquet)	*Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [2837]	8.2M
Integrated Modelling for ITER (Pinches)	ppt [2838]	8.3M
EDRG (Coelho)	ppt [2839]	8.6M
SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet)	ppt [2840]	8.6M
Overview of IMP3 activities during 2010 (Coster)	ppt [2841]	8.6M
GForge AS User Manual (GForge Group L.L.C.)	GForge AS User Manual [2842]	8.9M
IMP5 2012 overview (Farina)	ppt [2843]	9.0M
MHD stability analysis at ISM working session (Lonnroth)	ppt [2844]	9.3M
EDRG (ITM)	*EDRG* [2845]	9.3M
Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao)	*Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [2846]	9.5M
ITER PF Validation (Houlberg)	wmv [2847]	12M
Next ISM working session: a word from the LOC (Hogeweij)	pptx [2848]	12M
EUFORIA-Grid and HPC access for Fusion (Plociennik)	ppt [2849]	12M
Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper)	pdf [2850]	12M
Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper)	pdf [2851]	12M
ETS - Free Boundary Equilibrium (Coster)	ppt [2852]	13M
Presentation to ISM about the ETS (Coster)	ppt [2853]	13M
ETS (Coster)	ppt [2854]	13M
Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho)	ppt [2855]	14M
3D wall model of ASCOT (Sipilä)	ASCOT 3D wall (S.Sipil) [2856]	15M
Core-Edge Transport Coupling Via Manual Intervention (Coster and Klingshirn)	this document [2857]	15M

[2832] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[2833] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[2834] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
[2835] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
[2836] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[2837] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[2838] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[2839] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[2840] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[2841] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[2842] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[2843] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[2844] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Lonnroth_ISM_working_session_2011.ppt
[2845] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[2846] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[2847] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[2848] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[2849] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[2850] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[2851] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[2852] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/ETS-FBE.ppt
[2853] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[2854] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[2855] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[2856] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[2857] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf

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Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement (Baranov)	pdf [2858]	16M
IMP5-II (ITM)	*IMP5-II* [2859]	16M
Overview of the OMFIT framework (Meneghini)	pdf [2860]	17M
ETS: Design Elements - Integrated Modelling (Coster)	ppt [2861]	17M
Overview of EDRG activities during 2010 (Coelho)	ppt [2862]	18M
ETS: European Transport Solver - Current Status (Coster)	ETS Status [2863]	19M
Demonstration/Discussion (Antonio, David T), movie (Gomez)	movie [2864]	19M
MAPPER (MAPPER)	*MAPPER* [2865]	19M
MHD workflows (Christian), movie (Konz)	movie [2866]	22M
Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov)	ppt [2867]	22M
ITM Code Camps (ITM)	*ITM Code Camps* [2868]	25M
The European Transport Solver (Coster)	Presentation at ICNSP-2009 on the ETS [2869]	25M
ITER Integrated Modelling Programme (Pinches)	ppt [2870]	28M
The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov)	ppt [2871]	29M
Movie: Ne/Te/q evolution (shot 5 run 42) (Coster)	mpg [2872]	30M
Introduction Impact of EUFORIA (Pr, David), movie (Coster)	Movie [2873]	30M
Movie: Psi evolution (shot 5 run 42) (Coster)	mpg [2874]	32M
evolving equilibrium (Coster)	movie1 [2875]	32M
evolving plasma (Coster)	movie2 [2876]	33M
Mixed grid HPC Workflow (Antonio), movie (Gomez)	movie [2877]	33M
Cloud pilot: Cloud demo (Marcin), movie (Plociennik)	movie [2878]	35M
PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS (Garcia)	ppt [2879]	35M
Center for Extended MHD Modeling (CEMM) (Jardin)	pdf [2880]	36M
Mixed grid HPC Workflow (Antonio), movie (Gomez)	movie [2881]	52M
Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor (Coster)	ppt [2882]	62M
ETS Doxyfile (Coster)	(PDF) [2883]	84M

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

[2858] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Baranov_Hybrid_database.pdf
[2859] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[2860] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
[2861] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[2862] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[2863] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[2864] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[2865] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[2866] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[2867] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[2868] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[2869] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[2870] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[2871] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[2872] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/comb_psi_5_42.900x400.mpg
[2873] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[2874] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/psi_5_42.mpg
[2875] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[2876] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[2877] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[2878] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[2879] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[2880] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[2881] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[2882] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[2883] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf

26.3 Documents (sorted by time)

26.3.1 2004

26.3.1.1 June

- Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand): Validation Procedure (Draft) [2884] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix) (Strand): Validation Procedure (Appendix) [2885] (288K)

26.3.2 2007

26.3.2.1 December

- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [2886] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [2887] (6.0M)

26.3.3 2008

26.3.3.1 April

- Definition of flux loops in EU-ITM datastructure (Coelho): Flux loop position [2888] (576K)
- PF connections (Coelho): PFconnections [2889] (64K)

26.3.3.2 June

- ITM software policies and gateway user agreement (Strand): (doc) [2890] (96K)
- ITM software policies and gateway user agreement (Strand): (pdf) [2891] (128K)
- Gateway user agreement - invite (Strand): (doc) [2892] (64K)
- Gateway user agreement - invite (Strand): (pdf) [2893] (32K)

26.3.3.3 August

- ETS transport equations and list of variables (Kalupin): Description of the ETS [2894] (352K)
- ETS transport equations and list of variables (2008-08-01) (Coster): pdf [2895] (352K)

26.3.3.4 September

- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [2896] (352K)
- ITM AMNS Interface (Coster): pdf [2897] (288K)

[2884] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
[2885] https://www.efda-itm.eu/ITM/imports/itm/public/validation_procedure_appendix.pdf
[2886] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[2887] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[2888] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FLUXLOOPposition.pdf
[2889] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[2890] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[2891] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
[2892] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[2893] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[2894] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[2895] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_TRANSPORT_EQUATIONS.pdf
[2896] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[2897] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf

26.3.3.5 October

- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [2898] (128K)

26.3.3.6 November

- ITM gateway users's guid (Guillerminet): pdf [2899] (3.9M)

26.3.3.7 December

- Call for participation - 2009 Work programme (Coelho): Call for Participation [2900] (1.7M)
- ITM gateway user's guide (Guillerminet): Gateway User'sGuide: [2901] (3.9M)

26.3.4 2009

26.3.4.1 January

- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [2902] (3.3M)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [2903] (320K)
- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [2904] (224K)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental Data Overview [2905] (320K)
- Standardized equations (unknown): Form of the standardizeequations [2906] (128K)

26.3.4.2 February

- Current status of the ETS (present at the JET TFT meeting) (Coster): pdf [2907] (768K)
- IMP3 2009 Kick-Off (Coster): pdf [2908] (640K)
- Collaboration Issue: Standards (Coster): pdf [2909] (576K)
- ETS Road Map (2009) (Coster): doc [2910] (32K)

26.3.4.3 March

- ETS Status and Standards (v1) (Coster): pdf [2911] (2.1M)
- Requests to other projects (Coster): doc [2912] (64K)
- The Universal Access Layer User Guide (2009-03-03) (Manduchi): pdf [2913] (288K)

[2898] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[2899] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
[2900] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[2901] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITM_gateway_users_guide_v3-1.pdf
[2902] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[2903] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[2904] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[2905] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ExperimentalDataITM_v3.pdf
[2906] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[2907] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/2009_JET_TFT_ETS.pdf
[2908] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[2909] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[2910] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc
[2911] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[2912] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[2913] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf

- Work plan and Resources for the ETS in 2009 (Coster): doc [2914] (128K)
- ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009) (Coster): pdf [2915] (4.8M)
- Closure of equilibriumtransport set / Data flow (Pereverzev): pdf [2916] (32K)
- EUFORIA Vision (EUFORIA): pdf [2917] (32K)
- Data access for Fusion Simulation (EUFORIA): pdf [2918] (544K)

26.3.4.4 April

- Data structures in practice (Imbeaux): Data Structures inPractice [2919] (1.0M)
- The universal access layer user guide (Manduchi): UAL User Guide [2920] (448K)

26.3.4.5 May

- Machine Description User Guide. (Imbeaux): User Guide [2921] (1.2M)
- ISIP tools training (Imbeaux): Introduction: [2922] (416K)
- Exercises (Imbeaux): Exercises: [2923] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [2924] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [2925] (864K)
- Using XML for code specific parameters (Konz): Fortran XML Parser: [2926] (768K)
- Integrated Tokamak Modelling TF (Strand): Par Strand's RUSA 2009 Presentation [2927] (5.1M)

26.3.4.6 June

- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [2928] (352K)
- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [2929] (3.6M)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [2930] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [2931] (800K)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [2932] (15M)

[2914] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Work_plan_and_Resources_for_the_ETS_in_2009_v3.doc
[2915] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[2916] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EqTrInterface.pdf
[2917] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/
[2918] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EUFORIA_Data_access.ppt
[2919] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[2920] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_User_Guide.pdf
[2921] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[2922] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
[2923] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[2924] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[2925] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[2926] https://www.efda-itm.eu/ITM/imports/isip/public/isip_FortranXMLParser.pdf
[2927] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf
[2928] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[2929] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[2930] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[2931] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[2932] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt

- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [2933] (960K)
- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [2934] (32K)
- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [2935] (480K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [2936] (672K)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [2937] (64K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [2938] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [2939] (3.3M)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [2940] (288K)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [2941] (1.1M)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [2942] (192K)
- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [2943] (1.6M)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [2944] (2.1M)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [2945] (1.2M)
- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [2946] (672K)
- Contents of the ITM public database (Imbeaux): ITM PublicDatabase [2947] (32K)

26.3.4.7 October

- ITM Software License and rights (Coelho): model licence [2948] (32K)
- The European Transport Solver (Coster): Presentation at ICNSP-2009 on the ETS [2949] (25M)

26.3.4.8 December

- Annual Report 2009 (Coelho): Annual Reporting [2950] (256K)

26.3.5 2010

26.3.5.1 January

- Call for participation - 2010 Work programme (Coelho): Call for Participation [2951] (224K)

[2933] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[2934] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[2935] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[2936] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[2937] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[2938] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[2939] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[2940] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[2941] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[2942] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[2943] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[2944] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[2945] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[2946] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[2947] https://www.efda-itm.eu/ITM/imports/isip/public/isip_PublicContent.pdf
[2948] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf
[2949] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[2950] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[2951] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf

26.3.5.2 February

- Current ETS timeline (Gantt chart) (Coster): (PDF) [2952] (32K)
- Current ETS timeline (Gantt chart) (Coster): (MS Project) [2953] (256K)
- Talk given at the JET TF-T Meeting earlier in the year on the ETS (Coster): ppt [2954] (5.7M)

26.3.5.3 March

- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [2955] (192K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [2956] (4.5M)
- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [2957] (6.1M)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [2958] (4.2M)
- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [2959] (1.5M)
- New angles for the line integrated signals. (Coelho): report [2960] (128K)
- Basics on exp2ITM usage. (Signoret): presentation [2961] (2.3M)
- Minutes of the ITM meeting on the implementation of controllers within the ITM simulation platform (Konz): Minutes ofthe meeting on control in March 2010 [2962] (96K)
- Control Gantt Chart (Konz): Gantt Chart [2963] (32K)
- Agenda (Coster): pdf [2964] (32K)
- Introduction (Coster): ppt [2965] (2.9M)
- ETS Status and Standards (reduced) (Coster): ppt [2966] (864K)
- ETS Numerics Quality Assessment / Verification (Pereverzev): pdf [2967] (96K)
- Accuracy tests (Pereverzev): pdf [2968] (64K)
- ETS benchmarking and verification: Intermediate report (ASTRA results) (Pereverzev): pdf [2969] (96K)
- Proposal for ETS verification and benchmarking procedure (Pereverzev): pdf [2970] (96K)
- Introduction to ISIP tools (Imbeaux): ppt [2971] (2.1M)
- Exp2ITM : populate ITM database with experimental data (Signoret): ppt [2972] (1.6M)
- Introduction to ISE (Signoret): ppt [2973] (2.2M)

[2952] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[2953] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.mpp
[2954] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[2955] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[2956] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[2957] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
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[2973] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt

- Equilibrium Reconstruction with EQUAL (Zwingmann): ppt [2974] (1.7M)
- AMNS work (Eriksson): ppt [2975] (160K)
- ITER Integrated Modelling Expert Group - a brief overview (Strand): pdf [2976] (768K)
- EFDA Transport Topical Group: survey of research activities (Angioni): ppt [2977] (7.9M)

26.3.5.4 June

- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [2978] (4.5M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [2979] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [2980] (6.3M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [2981] (1.4M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [2982] (3.3M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [2983] (2.2M)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [2984] (736K)
- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [2985] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [2986] (736K)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [2987] (768K)
- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [2988] (320K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [2989] (96K)
- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [2990] (2.6M)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [2991] (3.1M)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [2992] (2.3M)

[2974] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[2975] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
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[2992] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt

26.3.5.5 July

- ITM datastructure and tools (Coelho): ITM datastructure and tools (R. Coelho) [2993] (4.3M)
- Code integration in IMP12 (Konz): Code integration in IMP12 (C. Konz) [2994] (6.1M)
- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [2995] (352K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [2996] (96K)
- Data Mapping User Guide (Signoret): User Guide [2997] (1.4M)

26.3.5.6 September

- 3D Machine Description of Fusion Devices (Lunt): pdf [2998] (4.1M)
- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [2999] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [3000] (3.5M)
- UAL Tutorial (Imbeaux): UAL tutorial [3001] (32K)
- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [3002] (480K)
- WebService Actor Generator (Guillerminet): ppt [3003] (704K)
- HPC2K - GRID and HPC Actor Generator (Guillerminet): ppt [3004] (1.5M)
- Parallel I/O in Simulation Workflows (Galonska): ppt [3005] (4.8M)
- Exp2ITM - a generic access to shot based data for European Tokamaks (Signoret): ppt [3006] (704K)
- Integrated Simulation Editor (Signoret): ppt [3007] (960K)
- Feedback control Simulation under the ITM platform (Barana): pdf [3008] (640K)
- Control Toolbox (Ravenel): ppt [3009] (608K)
- The ITM-TF Simulation Catalogue (Imbeaux): ppt [3010] (1.2M)
- Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows (Calabrò): pdf [3011] (608K)
- The New ITM Website (Konz): pdf [3012] (1.5M)
- Sawteeth and Neoclassical Tearing Modes Workflows (Sauter): ppt [3013] (832K)
- Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann): pdf [3014] (1.8M)

[2993] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[2994] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
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[3014] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf

- Free Boundary Equilibrium Code CEDRES++ (Blum): pdf [3015] (608K)
- Status of MARS-F and CarMa codes on ITM (Yadykin): ppt [3016] (1.1M)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [3017] (2.3M)
- Update on FIXFREE and CREATE-NL (Calabrò): ppt [3018] (1.4M)
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- XML2EQ (YAXFI) (Giovannozzi): ppt [3020] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [3021] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [3022] (384K)
- User Guide for the ETS (Coster): ETS User Guide [3023] (3.3M)
- ETS: European Transport Solver - Current Status (Coster): ETS Status [3024] (19M)
- Status of Edge Codes on the Gateway (Subba): ppt [3025] (2.2M)
- Status of grids in CPOS + edge CPOS (Subba): ppt [3026] (1.2M)
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- Validation and verification of the European Transport Solver (Kalupin): pdf [3029] (3.7M)
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- Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof): pdf [3034] (128K)
- Neutral Beam Injection in ITM (Schneider): pdf [3035] (480K)

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[3035] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf

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- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [3037] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [3038] (192K)
- Fast Particles activities during WP10 (Vlad): pdf [3039] (4.0M)
- Numerical codes for electron cyclotron heating and current drive (Bertelli): pdf [3040] (288K)
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- Fast ICRH code for routine analysis (Hellsten): pdf [3043] (736K)
- Present status of NBI codes for ITM (Schneider): pdf [3044] (480K)
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- JET hybrid regime: requests for modelling (Joffrin): pdf [3054] (1.7M)

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[3052] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Litaudon.pdf
[3053] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[3054] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf

- Modelling of hybrid regime - present status (Parail): pdf [3055] (896K)
- ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk): pdf [3056] (1.4M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [3057] (2.0M)
- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch): ppt [3058] (1.4M)
- Report on paper on density and fuelling on ITER (Garzotti): ppt [3059] (64K)
- Current ramp-up wrapup and publication (Imbeaux): ppt [3060] (1.1M)
- Current rampdown at JET: experimental results and modelling tasks (Nunes): pdf [3061] (7.3M)
- Introduction meeting 29 September (Litaudon): pdf [3062] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [3063] (320K)
- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [3064] (288K)
- Overview of AMNS activities during 2010 (Eriksson): ppt [3065] (1.8M)
- Overview of ISIP activities during 2010 (Imbeaux): ppt [3066] (3.9M)
- Overview of IMP12 activities during 2010 (Ottaviani): pps [3067] (4.6M)
- Overview of IMP3 activities during 2010 (Coster): ppt [3068] (8.6M)
- Overview of IMP4 activities during 2010 (Scott): pdf [3069] (224K)
- Overview of IMP5 activities during 2010 (Farina): ppt [3070] (3.4M)
- Overview of ISM activities during 2010 (Litaudon): ppt [3071] (1.2M)
- Overview of EDRG activities during 2010 (Coelho): ppt [3072] (18M)
- The EFDA HPC Project (Hatzky): pdf [3073] (832K)
- Integrated Modelling in ITER (Houlberg): ppt [3074] (2.3M)
- PRACE (Ottaviani): pps [3075] (160K)
- EUFORIA-Grid and HPC access for Fusion (Plociennik): ppt [3076] (12M)

[3055]https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
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[3076]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt

26.3.5.7 October

- Introduction meeting 27 October (Litaudon): pdf [3077] (224K)
- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [3078] (1.2M)
- Optimization of the EC Launchers (Henderson): pdf [3079] (3.2M)

26.3.5.8 November

- ETS - Free Boundary Equilibrium (Coster): ppt [3080] (13M)
- Movie: Psi evolution (shot 5 run 42) (Coster): mpg [3081] (32M)
- Movie: Ne/Te/q evolution (shot 5 run 42) (Coster): mpg [3082] (30M)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [3083] (5.5M)
- DINA-CH full tokamak simulator (Lister): pdf [3084] (1.3M)
- Movie: DINA plasma boundary (Lister): mpg [3085] (1.1M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [3086] (800K)
- Movie: CEDRES++ isoflux (Blum): mpg [3087] (5.4M)
- EQUAL in predictive mode (Zwingmann): ppt [3088] (320K)
- Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz): pdf [3089] (96K)
- DINA-CH workflow (Besseghir): pdf [3090] (32K)
- DINA-CH and CRONOS: Full tokamak discharge simulator (Kim): pdf [3091] (896K)
- Welcome and agenda (Voitsekhovitch): pdf [3092] (1.9M)
- Hybrid experiments for ISM modelling (Joffrin): ppt [3093] (2.0M)
- Agenda (Voitsekhovitch): ppt [3094] (32K)
- JET DT fusion yield projections (Challis): ppt [3095] (6.5M)
- Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement (Weisen): ppt [3096] (384K)
- JET high field/high current H-mode - extrapolation to DT operation (Voitsekhovitch): ppt [3097] (480K)

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[3097] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/DT_Hmode_Voits.pdf

- Current diffusion analysis on JET hybrid shots (Garcia): ppt [3098] (384K)
- New simulations of ITER hybrid scenario (Garcia): ppt [3099] (352K)
- ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl): ppt [3100] (800K)
- Introduction meeting 10 November (Litaudon): pdf [3101] (224K)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [3102] (1.5M)
- Introduction meeting 24 November (Litaudon): pdf [3103] (224K)

26.3.5.9 December

- Annual Report 2010 (Coelho): Annual Reporting [3104] (4.4M)
- Parameters for EPED simulations (Litaudon): ppt [3105] (640K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): ppt [3106] (7.2M)
- Impurity concentration during the current ramp up (Belo): ppt [3107] (1.3M)
- Predictive modelling of current ramp-down in JET discharges (Lonnroth): pdf [3108] (1.7M)
- JET current ramp down with METIS code (Artaud): ppt [3109] (480K)
- Update on ISM-P2-2010/11-08: ASDEX hybrid modelling (Citrin): ppt [3110] (1.1M)
- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [3111] (480K)
- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [3112] (224K)
- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [3113] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [3114] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon): ppt [3115] (1.9M)
- Conclusion working session Culham (Litaudon): ppt [3116] (544K)
- Overview of the European Integrated Tokamak Modelling Task Force (Falchetto): pdf [3117] (2.1M)
- Center for Simulations of Wave Interactions with MHD (SWIM) (Batchelor): pdf [3118] (1.2M)

[3098] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/neocladif.ppt
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- A Brief Introduction to FACETS (Epperly): pdf [3119] (608K)
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- EUFORIA - Brief Overview (Strand): pdf [3121] (1.2M)
- Center for Extended MHD Modeling (CEMM) (Jardin): pdf [3122] (36M)
- Fusion Simulation Program (FSP) (Tang): pdf [3123] (1.9M)
- ITER Needs and Requirements (Houlberg): ppt [3124] (4.5M)
- ITER PF Validation (Houlberg): wmv [3125] (12M)
- Detailed Overview of the Plasma State Software (McCune): pdf [3126] (192K)
- Consistent Physical Objects - A data structure concept for Integrated Modelling (Imbeaux): ppt [3127] (1.6M)
- Code Specific Parameters (Konz): pdf [3128] (832K)
- Storing Data on a Grid / AMNS (Coster): ppt [3129] (4.1M)
- ADIOS 1.2 (Klasky): pdf [3130] (3.1M)
- Universal Access Layer (Manduchi): pdf [3131] (1.1M)
- LSDF - Large Scale Data Facility at KIT (Hardt): pdf [3132] (2.1M)
- Distributed Resources in Kepler (Plociennik): ppt [3133] (1.7M)
- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [3134] (2.2M)
- IMP12 Kepler Workflows (Konz): pdf [3135] (1.3M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [3136] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [3137] (3.5M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [3138] (17M)
- evolving equilibrium (Coster): movie1 [3139] (32M)
- evolving plasma (Coster): movie2 [3140] (33M)

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- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [3141] (896K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [3142] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [3143] (480K)

26.3.6 2011

26.3.6.1 January

- Introduction meeting 19 January 2011 (Litaudon): pdf [3144] (608K)
- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [3145] (160K)
- Optimisation of operational phase for long-pulse scenarios (Polevoi): pdf [3146] (160K)

26.3.6.2 February

- Introduction meeting 9 February 2011 (Litaudon): pdf [3147] (544K)
- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [3148] (320K)
- Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch): pdf [3149] (160K)
- Introduction meeting 16 February 2011 (Litaudon): pdf [3150] (192K)
- Benchmark the ETS/impurity code against SANCO (Belo): pdf [3151] (544K)
- EMC3-EIRENE 3D fluid SOL code package (Harting): pdf [3152] (256K)
- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [3153] (128K)

26.3.6.3 March

- Langmuir CPO (Coelho): Langmuir probes [3154] (576K)
- Fusion CPO (Coelho): Fusion CPO [3155] (256K)
- Presentation to ISM about the ETS (Coster): ppt [3156] (13M)
- The ITM general grid description: A tutorial (Klingshirn): pdf [3157] (1.3M)
- Agenda (Litaudon): pdf [3158] (544K)
- Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives (Voitsekhovitch): ppt [3159] (896K)

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[3148] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_report.pdf
[3149] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_ISM-Validation.pdf
[3150] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Litaudon_introduction.pdf
[3151] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Belo_ETSimpurity_pop.pdf
[3152] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Harting_16.02.2011_v4.pdf
[3153] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Garcia_hybrid.pdf
[3154] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_LangmuirCPO.pdf
[3155] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FusionCPO.pdf
[3156] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[3157] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
[3158] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
[3159] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt

- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling (Houlberg): ppt [3160] (320K)
- On core-SOL Integration in Scenario Modelling for ITER (Kukushkin): pdf [3161] (352K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): pdf [3162] (1.1M)
- Fully predictive modelling of L-H and H-L transition (Parail): ppt [3163] (2.8M)
- ETS (Coster): ppt [3164] (13M)
- Simulations of the H to L transition in JET plasmas (Belo): ppt [3165] (4.1M)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [3166] (192K)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [3167] (96K)
- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch): ppt [3168] (1.5M)
- JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi): ppt [3169] (6.8M)
- First CRONOS simulation of JT60-SA (Schneider): pdf [3170] (1.4M)
- LHCD in JT60_SA: a preliminary study (Barbato): pdf [3171] (288K)
- Next ISM working session: a word from the LOC (Hogeweij): pptx [3172] (12M)
- Status of edge modelling with EDGE2D for ITER Hybrid Scenaio (Harting): ppt [3173] (448K)
- SOUL1D benchmark using EDGE2D models and JET reference shots (Guillemaut): ppt [3174] (640K)
- Predictive modelling of H-L transition in JET (Parail): ppt [3175] (512K)
- Report on AUG modelling (Hobirk): ppt [3176] (768K)
- ETS validation (Basiuk): ppt [3177] (800K)
- Optimizing ITER current ramp-up for hybrid scenario (Hogeweij): ppt [3178] (224K)
- ITER hybrid density modelling: current status (Koechl): ppt [3179] (160K)
- Optimisation of operational space for long pulse scenarios (Polevoi): doc [3180] (64K)
- Optimisation of operational space for long pulse scenarios: xml table (Polevoi): xml [3181] (64K)

[3160] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
[3161] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/AK-ISM.pdf
[3162] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[3163] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
[3164] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[3165] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[3166] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
[3167] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/hybrid_garcia_ism_meeting.pdf
[3168] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt
[3169] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
[3170] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf
[3171] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[3172] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[3173] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[3174] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
[3175] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Parail_PredictivemodellingofH-LtransitioninJET.ppt
[3176] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_AUG.ppt
[3177] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[3178] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_ITERhybridramp_upHogeweijISM11mar2011.ppt
[3179] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[3180] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[3181] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls

- Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi): doc [3182] (128K)
- First modelling of JT-60SA (Giruzzi): ppt [3183] (3.3M)
- Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon): ppt [3184] (1.4M)
- Agenda (Strand): pdf [3185] (64K)
- Introduction Impact of EUFORIA (Pr, David) (Strand): pdf [3186] (2.2M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [3187] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [3188] (544K)
- NA2: Training (Adrian) (Jackson): pdf [3189] (96K)
- NA3: Dissemination (Miguel) (Cardenas): pdf [3190] (2.3M)
- SA1: Grid (Marcus) (Hardt): pdf [3191] (1.7M)
- SA2: HPC (Adrian) (Jackson): pdf [3192] (64K)
- SA3: User support (Adrian) (Jackson): pdf [3193] (64K)
- Cloud pilot: Cloud demo (Marcin) (Plociennik): pdf [3194] (192K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [3195] (35M)
- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [3196] (1.5M)
- JRA2 Code adaptation for HPC (Adrian) (Jackson): pdf [3197] (160K)
- Demonstration/Discussion (Antonio, David T) (Tskhakaya): pdf [3198] (896K)
- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [3199] (19M)
- JRA3: workflows (Bernard) (Guillerminet): pdf [3200] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [3201] (704K)
- MHD workflows (Christian) (Konz): pdf [3202] (352K)
- MHD workflows (Christian), movie (Konz): movie [3203] (22M)
- Mixed grid HPC Workflow (Antonio) (Gomez): pdf [3204] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [3205] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [3206] (33M)
- Exploitation and sustainability - (Par, David) (Coster): pdf [3207] (160K)

[3182] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[3183] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[3184] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_03_02/ISM_WS_agenda-v4.ppt
[3185] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[3186] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[3187] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[3188] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[3189] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[3190] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
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[3194] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
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[3196] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
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[3205] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
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[3207] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf

26.3.6.4 April

- Introduction meeting 6 April 2011 (Litaudon): ppt [3208] (896K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results (Garzotti): pdf [3209] (384K)
- Validation exercise of the Kepler Workflow (Basiuk): pdf [3210] (64K)
- Summary report on ISM WS & ETS CC: ETS benchmarking (Voitsekhovitch): pdf [3211] (256K)
- Introduction meeting 27 April 2011 (Litaudon): pdf [3212] (1.6M)
- IOS/ITPA activities (Litaudon): ppt [3213] (32K)
- Optimizing ITER Current Ramp-up for hybrid scenario (Hogeweij): pdf [3214] (224K)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [3215] (1.8M)

26.3.6.5 May

- Nuclear reactions (Kiptily): pdf [3216] (1.2M)
- Introduction meeting 11 May 2011 (Litaudon): pdf [3217] (288K)
- ETS V&V activity during coming Code Camp 23-27 May Helsinki (Voitsekhovitch): pdf [3218] (224K)
- Analysis of the hybrid shot 77280 (Garcia): pdf [3219] (96K)

26.3.6.6 June

- ITM (ITM): *ITM* [3220] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [3221] (25M)
- ISIP (ITM): *ISIP* [3222] (2.2M)
- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [3223] (1.5M)
- EDRG (ITM): *EDRG* [3224] (9.3M)
- AMNS (ITM): *AMNS* [3225] (2.1M)
- ISM (ITM): *ISM* [3226] (2.2M)
- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [3227] (2.9M)
- IMP3 Core (ITM): *IMP3 Core* [3228] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [3229] (3.6M)
- IMP4 (ITM): *IMP4* [3230] (2.1M)

[3208] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Litaudon_introduction.ppt
[3209] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Garzotti.pdf
[3210] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Basiuk.pdf
[3211] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Voitsekhovitch-report_ACT1_ISM_VV_impurity.pdf
[3212] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Litaudon_introduction_v2.pdf
[3213] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/IOS_modelling.ppt
[3214] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf
[3215] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Citrin_AUGandJETmodellingupdate_2742011.ppt
[3216] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[3217] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Litaudon_introduction.pdf
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[3219] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Garcia_77280v2.pdf
[3220] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[3221] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[3222] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[3223] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[3224] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
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[3226] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[3227] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[3228] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[3229] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[3230] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx

- IMP5-I (ITM): *IMP5-I* [3231] (5.6M)
- IMP5-II (ITM): *IMP5-II* [3232] (16M)
- EUFORIA (EUFORIA): *EUFORIA* [3233] (5.3M)
- MAPPER (MAPPER): *MAPPER* [3234] (19M)
- Agenda (IMT): *Agenda* [3235] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [3236] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [3237] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [3238] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [3239] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [3240] (1.8M)
- SOAF Framework (Hayashi): *[PDF]* [3241] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [3242] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [3243] (4.1M)
- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [3244] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [3245] (7.2M)
- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [3246] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [3247] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [3248] (1.2M)

[3231] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[3232] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[3233] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[3234] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[3235] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[3236] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[3237] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[3238] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[3239] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[3240] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[3241] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[3242] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[3243] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[3244] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[3245] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
[3246] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[3247] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[3248] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt

- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [3249] (992K)

- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [3250] (576K)

- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [3251] (544K)

- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [3252] (6.7M)

- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [3253] (3.1M)

- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [3254] (896K)

- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [3255] (3.1M)

- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [3256] (4.8M)

- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [3257] (4.1M)

- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [3258] (192K)

- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [3259] (416K)

- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [3260] (832K)

- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [3261] (2.3M)

- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [3262] (576K)

[3249] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[3250] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[3251] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[3252] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[3253] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[3254] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[3255] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[3256] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf
[3257] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[3258] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf
[3259] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf
[3260] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[3261] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[3262] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf

- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [3263] (9.5M)

- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [3264] (3.7M)

- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [3265] (1.1M)

- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [3266] (576K)

- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [3267] (832K)

- Introduction meeting 8 June 2011 (Litaudon): pdf [3268] (192K)

- Summary of Chapter 2: Theoretical models and simulation codes (Giruzzi): pdf [3269] (352K)

- Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model (Fable): pdf [3270] (1.8M)

- Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO (Voitsekhovitch): pdf [3271] (832K)

- Introduction meeting 22 June 2011 (Litaudon): pdf [3272] (224K)

- Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti): pdf [3273] (1.3M)

- ISM report: comparison between Kadomtsev and 'continuous' sawtooth reconnection model in JINTRAC (Parail): pdf [3274] (192K)

- Simulations of the H to L transition in JET plasmas (EPS 2011) (Belo): pdf [3275] (384K)

- Predictive transport analysis of JET and AUG hybrid scenarios (EPS 2011) (Citrin): pdf [3276] (1.5M)

- Optimization of current ramp up phase for hybrid ITER discharges (EPS 2011) (Hogeweij): pdf [3277] (160K)

26.3.6.7 July

- Analysis of Runaway Electrons by Numerical Algorithms (Csepany): pdf [3278] (64K)

- GRAY code status (Figini): pdf [3279] (288K)

[3263] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[3264] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[3265] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[3266] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[3267] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[3268] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Litaudon_introduction.pdf
[3269] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Giruzzi_ISM_Chapter_2.pdf
[3270] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Fable_TGLF_JET_ISM_8jun2011.pdf
[3271] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Voitsekhovitch_GLF23benchmark_rotation.pdf
[3272] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Litaudon_introduction.pdf
[3273] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Garzotti_22_06_2011.pdf
[3274] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Parail_report.pdf
[3275] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Belo-EPS-2011.pdf
[3276] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Citrin-EPS2011_5slidesummary.pdf
[3277] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Hogeweij_ISM_22jun2011.pdf
[3278] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf
[3279] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf

- Ray-Tracing Code TRAVIS (Marushchenko): pdf [3280] (320K)
- IMP5 tools in 4.09a (Johnson): pdf [3281] (160K)
- Code Camp report (Goloborodko): pdf [3282] (384K)
- Agenda (Litaudon): doc [3283] (128K)
- Introduction (Litaudon): ppt [3284] (928K)
- Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch): ppt [3285] (2.3M)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [3286] (2.3M)
- Update on hybrid scenario (Garcia): ppt [3287] (704K)
- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar): pdf [3288] (2.3M)
- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici): pdf [3289] (3.8M)
- Modeling development for control for ITER advanced scenarios (Casper): pdf [3290] (1.8M)
- Current ramp up in JET hybrid scenarios (Voitsekhovitch): pdf [3291] (1.3M)
- Introduction (Litaudon): pdf [3292] (384K)
- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch): pdf [3293] (672K)
- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [3294] (224K)
- Analysis of current diffusion on ASDEX-Upgrade (Garcia): ppt [3295] (512K)
- Optimisation of the current ramp up phase for hybrid ITER discharges (Hogeweij): ppt [3296] (512K)
- #77922: current ramp-down (Koechl): ppt [3297] (128K)
- Update on hybrid scenario (Garcia): ppt [3298] (736K)
- MHD stability analysis at ISM working session (Lonnroth): ppt [3299] (9.3M)
- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [3300] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [3301] (2.2M)

[3280] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
[3281] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
[3282] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Victor--code_camp_report__prague_cc2011.pdf
[3283] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[3284] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[3285] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[3286] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[3287] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[3288] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[3289] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[3290] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/CasperISMtalkUtrechtJuly2011.pdf
[3291] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf
[3292] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
[3293] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[3294] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
[3295] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[3296] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[3297] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
[3298] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_rampdown.ppt
[3299] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Lonnroth_ISM_working_session_2011.ppt
[3300] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[3301] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt

26.3.6.8 September

- Integration of heating and fast particles models (Johnson): ppt [3302] (2.8M)
- IMP5 Summary (Farina): pdf [3303] (224K)
- IMP5: Energetic Particles (Vlad): ppt [3304] (2.4M)
- ARENA+ in ITM (Pokol): pdf [3305] (416K)
- TORBEAM for ITM (Poli): ppt [3306] (320K)
- Ray-Tracing Code TRAVIS (Marushchenko): ppt [3307] (320K)
- SELFO-light and advanced Fokker-Planck developments (Hellsten): ppt [3308] (4.3M)
- GRAY: quasi-optical ray-tracing code for ECH/CD (Figini): pdf [3309] (480K)
- Training: The IMP5HCD workflow (Johnson): pdf [3310] (3.5M)
- Introduction meeting 7 September 2011 (Litaudon): pdf [3311] (288K)
- SOUL: a 1D SOL module for CRONOS (Goswami): pdf [3312] (384K)
- Chapter 10: Theoretical modeles and simulation codes (Giruzzi): pdf [3313] (192K)
- Plasma scenarios for JT60SA (Joffrin): pdf [3314] (608K)
- Introduction meeting 28 September 2011 (Litaudon): pdf [3315] (224K)
- Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch): pdf [3316] (4.5M)
- Opening (Falchetto): ppt [3317] (224K)
- ITM Overview (Falchetto): ppt [3318] (2.4M)
- ITER IO Strategy on IM (Houlberg): pdf [3319] (224K)
- Present ITM capabilities (Coster): ppt [3320] (3.0M)
- ISIP (Manduchi): ppt [3321] (1.4M)
- EDRG (Coelho): ppt [3322] (8.6M)
- AMNS (Coster): ppt [3323] (4.3M)

[3302] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt
[3303] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Farina_IMP5_Summary.pdf
[3304] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[3305] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Pokol_ARENA.pdf
[3306] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.ppt
[3307] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[3308] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[3309] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
[3310] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
[3311] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Litaudon_introduction.pdf
[3312] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Goswami_july_25_2011.pdf
[3313] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Giruzzi_ISM_Chapter_10.pdf
[3314] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Joffrin-07-09-2011.pdf
[3315] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Litaudon_introduction.pdf
[3316] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Voitsekhovitch_GMinfo_plans.pdf
[3317] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[3318] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[3319] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[3320] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[3321] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[3322] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[3323] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt

- Equilibrium and MHD stability chain (IMP12) (Zwingmann): ppt [3324] (2.6M)
- IMP3 (Coster): ppt [3325] (5.5M)
- Present status of the General Grid Description and related software (IMP3) (Klingshirn): ppt [3326] (3.5M)
- Integration of heating and fast particles models and composite actor for the ETS (IMP5) (Jonsson): ppt [3327] (2.8M)
- IMP4 (Scott): pdf [3328] (288K)
- The ITM General Grid Description (Klingshirn): ppt [3329] (2.7M)
- Visualization Tools in the ITM (Coster): ppt [3330] (32K)
- Cross project session on Control (Bolzonella): ppt [3331] (2.6M)

26.3.6.9 October

- Introduction meeting 12 October 2011 (Litaudon): pdf [3332] (224K)
- Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail): pdf [3333] (3.7M)
- Update on current ramp up modelling (T&C ITPA meeting) (Voitsekhovitch): pdf [3334] (1.7M)
- General information and preparation to the ISM working session November 7-11 2011 (Voitsekhovitch): ppt [3335] (960K)

26.3.6.10 November

- Introduction ETS training 2011 (Huynh): Introduction training 2011, [3336] (512K)
- ETS_C training 2011 (Huynh): training 2011 [3337] (1.2M)
- Agenda (Litaudon): pdf [3338] (160K)
- Welcome (Voitsekhovitch): pdf [3339] (576K)
- Introduction (Litaudon): ppt [3340] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [3341] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [3342] (4.1M)
- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [3343] (864K)

[3324] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[3325] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[3326] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[3327] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[3328] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[3329] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[3330] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[3331] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[3332] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Litaudon_introduction.pdf
[3333] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Parail.pdf
[3334] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[3335] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[3336] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
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[3338] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[3339] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[3340] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[3341] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[3342] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[3343] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt

- Introduction (Litaudon): ppt [3344] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [3345] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [3346] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [3347] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [3348] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [3349] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [3350] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [3351] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [3352] (2.8M)
- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [3353] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [3354] (192K)
- Edge modelling resources - November 2011 (Groth): ppt [3355] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [3356] (2.2M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [3357] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [3358] (2.1M)
- Introduction (Litaudon): ppt [3359] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [3360] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [3361] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [3362] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [3363] (992K)
- L-H and H-L transition (Belo): ppt [3364] (704K)
- LHCD during JET current ramp up (Barbato): pdf [3365] (416K)
- Particle transport in JET and ITER HS (Garzotti): ppt [3366] (192K)

[3344] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[3345] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[3346] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
[3347] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.1.5_Modelling.ppt
[3348] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt
[3349] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt
[3350] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[3351] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[3352] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt
[3353] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[3354] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
[3355] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[3356] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[3357] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/JAEA_update.pdf
[3358] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/DMoreau_D3D093011.pdf
[3359] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[3360] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[3361] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
[3362] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[3363] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
[3364] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Belo_LH_and_HL_transition.ppt
[3365] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[3366] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt

- Real time control (Liu): pptx [3367] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [3368] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [3369] (3.0M)
- Introduction meeting 23 November 2011 (Litaudon): ppt [3370] (1.1M)
- Optimizing the current ramp-up phase for the hybrid ITER scenario (Hogeweij): pdf [3371] (1.2M)
- Integrated ITER scenario modelling and density evolution prospects (Koechl): pdf [3372] (288K)
- A theory-based criterion for Internal Transport Barrier formation (Militello): pdf [3373] (672K)
- Running ETS in KEPLER (Kalupin): User Guide [3374] (7.0M)

26.3.6.11 December

- Core-Edge Transport Coupling Via Manual Intervention (Coster and Klingshirn): this document [3375] (15M)

26.3.7 2012

26.3.7.1 January

- Introduction meeting 25 January 2012 (Litaudon): ppt [3376] (832K)
- DEMO modelling using PROCESS (Kemp): ppt [3377] (384K)
- Pellet DEMO (Garzotti): ppt [3378] (2.5M)

26.3.7.2 February

- Introduction meeting 8 February 2012 (Litaudon): pdf [3379] (384K)
- ACT1 restart (Voitsekhovitch): pdf [3380] (736K)
- Introduction meeting 22 February 2012 (Litaudon): pdf [3381] (224K)
- Modelling of kick-triggered ELMs at JET - current status (Koechl): pdf [3382] (416K)
- Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch): pdf [3383] (2.0M)

26.3.7.3 March

- ETS Doxyfile (Coster): (PDF) [3384] (84M)

[3367] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Feng_nov2011.pptx
[3368] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Voitsekhovitch_ISMWS_Nov2011.ppt
[3369] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon-JT-60SA.ppt
[3370] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
[3371] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
[3372] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Koechl.pdf
[3373] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Militello.pdf
[3374] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[3375] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf
[3376] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
[3377] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/rk_process_demo_ISM_jan_2012.ppt
[3378] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Demo_fuel_cycle_meeting_29_11_2011.ppt
[3379] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Litaudon_introduction.pdf
[3380] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf
[3381] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Litaudon_introduction.pdf
[3382] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Koechl.pdf
[3383] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Voitsekhovitch_Feb22_2012.pdf
[3384] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf

26.3.7.4 April

- Introduction meeting 25 April 2012 (Litaudon): pdf [3385] (256K)
- IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch): pdf [3386] (960K)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [3387] (192K)

26.3.7.5 May

- Local information (Koechl): ppt [3388] (2.9M)
- Agenda (Litaudon): pdf [3389] (64K)
- Introduction (Litaudon): ppt [3390] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [3391] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [3392] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [3393] (1.9M)
- NCLASS benchmark (Basiuk): ppt [3394] (544K)
- Current diffusion in hybrid scenarios (Garcia): ppt [3395] (352K)
- Density simulation in JET HS (Garzotti): ppt [3396] (576K)
- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [3397] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [3398] (416K)
- Free boundary equilibrium transport simulations of ITER scenarios under control (Urban): ppt [3399] (640K)
- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [3400] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [3401] (864K)
- Implementation of the JT-60SA NBI configuration in EU transport codes (Bolzonella): ppt [3402] (1.5M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): ppt [3403] (672K)
- Predictive simulations of JT60-SA (Garzotti): ppt [3404] (1.0M)

[3385] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Litaudon_introduction.pdf
[3386] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Voitsekhovitch_IOS_summary.pdf
[3387] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Garcia_JET_JT-60U.pdf
[3388] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Koechl_LOC.ppt
[3389] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ISM_agenda_WS_May_2012.pdf
[3390] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[3391] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
[3392] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ITER_ramp_up_Hogeweij.ppt
[3393] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
[3394] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt
[3395] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_current_diffusion.ppt
[3396] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
[3397] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Koechl_density_depletion.ppt
[3398] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Citrin_ISM_Vienna2012.ppt
[3399] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/freebie_iter_may2012_ism.pdf
[3400] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Litaudon_HybridMetis.ppt
[3401] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[3402] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Bolzonella_JT60SA_NBI.ppt
[3403] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[3404] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt

26.3.7.6 June

- Introduction meeting 13 June 2012 (Litaudon): ppt [3405] (384K)
- Integrated core-edge modelling for JET Hybrid scenario (Belo): ppt [3406] (1.3M)
- Simulations of ASDEX-Upgrade HS with Bohm-gyroBohm transport model (Voitsekhovitch): ppt [3407] (512K)
- Linear gyro-kinetic analysis with GYRO code for shot 77922 (Moradi): pdf [3408] (2.3M)
- Introduction meeting 20 June 2012 (Litaudon): pdf [3409] (192K)
- Integrated modelling for tokamak plasma: physics and scenario optimisation (Voitsekhovitch): pdf [3410] (256K)
- Modelling of ELM mitigation at JET (Koechl): pdf [3411] (2.1M)
- Density simulation in JET HS (Garzotti): pdf [3412] (128K)
- Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban): pdf [3413] (4.0M)
- A new free-boundary equilibrium evolution code, FREEBIE (Kim): pdf [3414] (896K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pdf [3415] (384K)
- Integrated modelling of JT-60SA scenarios with the METIS code (Giruzzi): pdf [3416] (448K)
- Transport and Confinement in JT-60SA (Barbato): pdf [3417] (576K)

26.3.7.7 September

- Introduction and ISM IAEA Modelling of Hybrid Scenario: from present-day experiments toward ITER (Litaudon): pdf [3418] (2.1M)
- The EU ITM-TF effort - Achievements and First Physics Results (Falchetto): pdf [3419] (1.1M)
- The European Transport Solver (ETS): an integrated approach for transport simulations in the plasma core (Kalupin): pdf [3420] (256K)

26.3.7.8 October

- Introduction and IOS-ITPA 2012 summary (Litaudon): pdf [3421] (2.0M)
- Status of scenario studies for WEST (Imbeaux): pdf [3422] (640K)

[3405] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Litaudon_introduction.ppt
[3406] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[3407] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[3408] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[3409] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf
[3410] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[3411] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[3412] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
[3413] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/JURBAN_EPS_overview_ISM.pdf
[3414] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf
[3415] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garcia_EPS_ISM_meeting_jeronimo.pdf
[3416] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Giruzzi_EPS_4ISM.pdf
[3417] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Barbato.pdf
[3418] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf
[3419] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[3420] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Kalupin_Summary_IAEA.pdf
[3421] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Litaudon_introduction_summaryITPA.pdf
[3422] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Imbeaux_WEST_Scenarios_ISM_20121024.pdf

- Progress in the simulation of JET hybrid pulse 77922 with the European Transport Solver (Figueiredo): pdf [3423] (2.2M)
- LHCD simulation by ASTRA/FRTC of JET discharges (Barbato): pdf [3424] (4.5M)
- Short update on particle transport modelling following EPS conference (Garzotti): pdf [3425] (96K)

26.3.7.9 November

- Welcome and local information (Voitsekhovitch): ppt [3426] (352K)
- Agenda (Litaudon): ppt [3427] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [3428] (576K)
- Pulses for analysis with the ILW (Joffrin): ppt [3429] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [3430] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [3431] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [3432] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [3433] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [3434] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [3435] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [3436] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [3437] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [3438] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [3439] (288K)
- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [3440] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [3441] (320K)
- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [3442] (2.6M)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [3443] (1.7M)

[3423] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Figueiredo_24Oct2012.pdf
[3424] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[3425] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Garzotti_24Oct2012.pdf
[3426] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[3427] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[3428] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
[3429] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
[3430] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[3431] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[3432] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[3433] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[3434] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[3435] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx
[3436] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
[3437] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[3438] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[3439] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[3440] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[3441] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt
[3442] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Figueiredo.pdf
[3443] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Nave_ETS_Benchmarking.ppt

- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [3444] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [3445] (416K)
- H-L transition with ITER like wall (Belo): ppt [3446] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [3447] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [3448] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [3449] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [3450] (832K)
- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [3451] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [3452] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [3453] (480K)
- Conclusions, information (Litaudon): ppt [3454] (640K)

26.3.7.10 December

- ITM-TF Status and 2013 WorkPlan (Falchetto): ppt [3455] (3.3M)
- Integrated Modelling for ITER (Pinches): ppt [3456] (8.3M)
- ISIP 2012 overview (Imbeaux): ppt [3457] (1.9M)
- Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho): ppt [3458] (14M)
- Coordination and Provision of AMNS data (Coster): ppt [3459] (1.5M)
- Workflows (Coster): ppt [3460] (8.0M)
- Equilibrium, MHD, and Disruptions (Giovannozzi): ppt [3461] (2.6M)
- IMP3: Transport Code and Discharge Evolution (Coster): ppt [3462] (4.1M)
- IMP4 (Scott): pdf [3463] (352K)
- IMP5 2012 overview (Farina): ppt [3464] (9.0M)
- IMP5: Energetic Particles (Vlad): pdf [3465] (7.4M)
- INTEGRATED SCENARIO MODELLING (summary of ISM group activities for 2012) (Litaudon): ppt [3466] (4.1M)

[3444] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Hogeweij_ISM_23Nov2012_ITERlike_RURD_qprofile_Analysis.ppt
[3445] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
[3446] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ILW_paula.ppt
[3447] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_Meeting_Bizarro.ppt
[3448] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Barbato_ISM_WG_22Nov12.pptx
[3449] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/baiocchi.pdf
[3450] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_presentationJET_jeronimo.pptx
[3451] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Sips_IOS_modelling_CvsBeW.ppt
[3452] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[3453] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[3454] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
[3455] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[3456] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[3457] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[3458] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[3459] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[3460] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[3461] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[3462] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[3463] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[3464] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[3465] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[3466] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt

26.3.8 2013

26.3.8.1 February

- Organisation of modelling activities in 2013 (Voitsekhovitch): pdf [3467] (544K)
- Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement (Baranov): pdf [3468] (16M)
- ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013 (Voitsekhovitch): pdf [3469] (512K)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [3470] (1.1M)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova-Stanik): pdf [3471] (160K)

26.3.8.2 March

- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [3472] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [3473] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [3474] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [3475] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [3476] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [3477] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [3478] (544K)
- European Transport Solver Status (Basiuk): ppt [3479] (608K)
- Code camp report (Figueiredo): pdf [3480] (288K)
- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [3481] (22M)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [3482] (2.9M)
- Linear Stability Chain in the new gateway (Nabais): ppt [3483] (4.6M)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [3484] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [3485] (288K)

[3467] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
[3468] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Baranov_Hybrid_database.pdf
[3469] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf
[3470] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf
[3471] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf
[3472] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Voitsekhovitch_Garcia_ISMWS1.pdf
[3473] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/JET_JT60U_jeronimo_ISM.pptx
[3474] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Corediv_model.pdf
[3475] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Bizarro_Garching_Mar11_2013.pdf
[3476] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
[3477] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/2.Thursday/NBI_NUBEAM_FIN.ppt
[3478] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/NTM_CC_Garching_March_2013.ppt
[3479] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Basiuk_ISM_2013_status_ETS_C.ppt
[3480] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[3481] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[3482] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ACT1_ivanova.ppt
[3483] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Nabais.ppt
[3484] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Koechl_ISM_Garching_2013.ppt
[3485] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ISMWS1_2013_COREDIV_4ITER.ppt

- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [3486] (192K)
- Activity within ISM (Barbato): pptx [3487] (320K)
- Closing of working session (Voitsekhovitch): pdf [3488] (224K)

26.3.8.3 April

- ISM news and coming events (Voitsekhovitch): pdf [3489] (224K)
- Role of fast ions in hybrid scenarios (Garcia): pdf [3490] (896K)
- Role of impurities in ITER-like ramp up in JET (Hogeweij): pdf [3491] (2.6M)

26.3.8.4 May

- ISM news and coming events, preparation to 2nd ISM working session 2013 (Voitsekhovitch): pdf [3492] (256K)
- DEMO preliminary scenario analysis: introduction and METIS simulations (Giruzzi): ppt [3493] (1.3M)
- Summary of WP12-SYS02 activity on DEMO1 scenario profile consistency (Fable): pdf [3494] (672K)
- Simulations with COREDIV code of DEMO discharges (Zagorski): ppt [3495] (1.4M)
- NBI simulations for DEMO1 (Baruzzo): ppt [3496] (3.7M)
- DEMO1 profile consistency and sensitivity studies by METIS (Bolzonella): pdf [3497] (224K)
- JINTRAC simulations for DEMO (Garzotti): ppt [3498] (256K)

26.3.8.5 June

- Agenda and working groups (Voitsekhovitch): pdf [3499] (256K)
- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [3500] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [3501] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [3502] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [3503] (288K)
- Agenda (Voitsekhovitch): pdf [3504] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [3505] (3.5M)

[3486] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_ISMWS_March2013.ppt
[3487] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Barbato_ISM_15_3_13.pptx
[3488] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_Garcia_ISMWS1_closing.pdf
[3489] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Voitsekhovitch_Garcia_Apr10_2013.pdf
[3490] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
[3491] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[3492] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Voitsekhovitch_Garcia_May23_2013.pdf
[3493] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[3494] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/WP1213_summary_EF.pdf
[3495] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt
[3496] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt
[3497] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[3498] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[3499] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Agenda_June3_2013.pdf
[3500] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/METIS_for_WEST_ISMmeeting_june13.pptx
[3501] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
[3502] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/ISM_meeting_RAPTOR_talk.pdf
[3503] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/PresentatieISM.pdf
[3504] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Agenda_IO_ISM.pdf
[3505] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ISM_ITER_Modelling_needs.pptx

- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [3506] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [3507] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [3508] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [3509] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [3510] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [3511] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [3512] (2.4M)
- Agenda (Voitsekhovitch): pdf [3513] (96K)
- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [3514] (640K)
- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [3515] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [3516] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [3517] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [3518] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [3519] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [3520] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [3521] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [3522] (96K)
- ISM news and coming events (Voitsekhovitch): pdf [3523] (192K)
- Modelling of JET hybrid scenarios with the European Transport Solver (Figueiredo): pdf [3524] (2.5M)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [3525] (992K)
- Integrated core+edge+MHD modelling of ELM mitigation at JET (Koechl): ppt [3526] (4.2M)
- Current density modelling in JET and JT-60U identity plasma experiments (Siren): pdf [3527] (1.5M)

[3506] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_IO_jeronimo_ISM.pptx
[3507] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_pellet_fuelling.pptx
[3508] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Koechl_ELM_mitigation.pdf
[3509] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Voitsekhovitch_June6_2013.pdf
[3510] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Hogeweij_ISM_IO_meeting.pdf
[3511] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_control_meeting.pdf
[3512] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Pinches_ISM_June_2013.pptx
[3513] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Agenda_ISM_ws_June7_2013.pdf
[3514] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/A._Figueiredo_WS_Report.pdf
[3515] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/NTM_Cadarache_June_2013.pdf
[3516] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Irena_ACT1_report.pdf
[3517] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/baiocchi_ism.pptx
[3518] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Garzotti_June7_2013.pptx
[3519] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Voitsekhovitch.pdf
[3520] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Hogeweij_7june2013.pdf
[3521] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/ISM_final_presentation_ffelici.pdf
[3522] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/PresentatieISM.pdf
[3523] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
[3524] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Figueiredo.pdf
[3525] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[3526] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Koechl_ISM_modelling_of_ELM_mitigation_at_JET.ppt
[3527] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf

26.3.8.6 September

- ISM news and coming events (Voitsekhovitch): pdf [3528] (224K)
- Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density (Ivanova-Stanik): pdf [3529] (416K)
- ISM news and coming events (Voitsekhovitch): pdf [3530] (224K)
- Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control (Hogeweij): ppt [3531] (6.1M)
- PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS (Garcia): ppt [3532] (35M)
- Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch): ppt [3533] (768K)

26.3.8.7 November

- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [3534] (736K)
- ISM news and coming events (Voitsekhovitch): ppt [3535] (672K)
- ITPA summary (Garcia): ppt [3536] (5.3M)
- EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch): ppt [3537] (1.4M)
- ITER Integrated Modelling Programme (Pinches): ppt [3538] (28M)
- ITM-TF Status and Achievements (Falchetto): ppt [3539] (4.8M)
- AMNS + IMP3 (Coster): ppt [3540] (5.9M)
- Overview of EDRG results (Coelho): ppt [3541] (3.5M)
- ISIP 2013 overview (Imbeaux): ppt [3542] (2.2M)
- IMP12 at the end of 2013 (Yadikin): ppt [3543] (7.8M)
- ITM-IMP4 Status & Achievements (Nielsen): ppt [3544] (2.1M)
- IMP5 2013 overview (Farina): ppt [3545] (5.2M)
- INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013 (Voitsekhovitch): pdf [3546] (1.0M)

[3528] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/Voitsekhovitch_Garcia_Sept4_2013.pdf
[3529] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/ITER_COREDIV_ISM_meeting_04_09_2013.pdf
[3530] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Voitsekhovitch_Garcia_Sept25_2013.pdf
[3531] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt
[3532] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[3533] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[3534] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/fast_ion_jeronimo_ism.ppt
[3535] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[3536] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[3537] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
[3538] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[3539] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[3540] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[3541] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[3542] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[3543] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[3544] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[3545] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
[3546] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf

- Euro-Fusion Code Development for Integrated Modelling Work Package (Falchetto): pdf [3547] (608K)
- ITM Workflows (Coster): ppt [3548] (7.9M)
- Overview of the OMFIT framework (Meneghini): pdf [3549] (17M)
- Tightly-coupled workflows using MUSCLE2 (Hoenen): pdf [3550] (480K)
- The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations (Batchelor): pdf [3551] (5.0M)
- Demo on ETS workflow capabilities (Kalupin): ppt [3552] (6.1M)
- ITM scenarios using IPS (Petruczynik): ppt [3553] (1.8M)

26.3.8.8 December

- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [3554] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [3555] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [3556] (1.1M)
- Agenda (Voitsekhovitch): ppt [3557] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [3558] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [3559] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [3560] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [3561] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [3562] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [3563] (2.5M)

26.3.9 2014

26.3.9.1 December

- Plans for development and release of SOLPS-ITER (Bonnin): ppt [3564] (128K)
- Comparison of different iterative schemes in B2 for full-scale ITER cases. (Task WPCD-SOLPS-OPT) (Kotov): pdf [3565] (608K)

[3547] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
[3548] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
[3549] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
[3550] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/muscle2-lisbon2013.pdf
[3551] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
[3552] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
[3553] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[3554] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/1.Monday/Welcome_Agenda_3rdISM_WS.ppt
[3555] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/2.Tuesday/baiocchi_ISM_03_12_2013_.pdf
[3556] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/4.Thursday/Koechl_DEMO_test_modelling_with_JETTO.ppt
[3557] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Agenda_6Dec2013.ppt
[3558] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/neutrals_JETTO_Transp_Dec2013.ppt
[3559] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/75225_analysis_jeronimo.pdf
[3560] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/H-mode_jeronimo_nuclear_fusion_2.docx
[3561] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Koechl_ne_depletion_with_mitigated_ELMs.ppt
[3562] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/CODE_camp_ISM_JET-report.ppt
[3563] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[3564] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[3565] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf

- Convergence and accuracy of coupled FV/MC codes (Baelmans): ppt [3566] (3.8M)
- On the modeling of drift fluxes with self-consistent electric field in the SOLPS code (Maj): pdf [3567] (3.7M)
- SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet): ppt [3568] (8.6M)
- PARSOLPS (Feher): pdf [3569] (1.6M)
- Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor (Coster): ppt [3570] (62M)

26.3.10 2015

26.3.10.1 January

- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [3571] (192K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [3572] (192K)

26.3.10.2 April

- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [3573] (384K)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.4 Documents (sorted by topic)

26.4.1 EC

- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [3574] (192K)

26.4.2 ECRH

- GRAY code status (Figini): pdf [3575] (288K)
- Ray-Tracing Code TRAVIS (Marushchenko): pdf [3576] (320K)
- TORBEAM for ITM (Poli): ppt [3577] (320K)

26.4.3 IC

- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [3578] (384K)

[3566] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[3567] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[3568] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[3569] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/tfeher_solps_WPCD.pdf
[3570] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[3571] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
[3572] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
[3573] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/
[3574] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
[3575] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[3576] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
[3577] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.ppt
[3578] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/

26.4.4 NBI

- Code Camp report (Goloborodko): pdf [3579] (384K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [3580] (192K)

26.4.5 SOLPS-Optimization

- Plans for development and release of SOLPS-ITER (Bonnin): ppt [3581] (128K)
- Comparison of different iterative schemes in B2 for full-scale ITER cases. (Task WPCD-SOLPS-OPT) (Kotov): pdf [3582] (608K)
- Convergence and accuracy of coupled FV/MC codes (Baelmans): ppt [3583] (3.8M)
- On the modeling of drift fluxes with self-consistent electric field in the SOLPS code (Maj): pdf [3584] (3.7M)
- SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet): ppt [3585] (8.6M)
- PARSOLPS (Feher): pdf [3586] (1.6M)
- Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor (Coster): ppt [3587] (62M)

26.4.6 amns

- Nuclear reactions (Kiptily): pdf [3588] (1.2M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [3589] (352K)
- ITM AMNS Interface (Coster): pdf [3590] (288K)
- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [3591] (128K)
- AMNS work (Eriksson): ppt [3592] (160K)

26.4.7 control

- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [3593] (3.3M)
- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [3594] (224K)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [3595] (64K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [3596] (3.5M)

[3579] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Victor--code_camp_report__prague_cc2011.pdf
[3580] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
[3581] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[3582] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf
[3583] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[3584] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[3585] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[3586] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/tfeher_solps_WPCD.pdf
[3587] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[3588] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[3589] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[3590] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[3591] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[3592] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
[3593] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[3594] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[3595] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[3596] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt

- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [3597] (3.3M)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [3598] (288K)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [3599] (1.1M)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [3600] (192K)
- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [3601] (1.6M)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [3602] (2.1M)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [3603] (1.2M)
- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [3604] (672K)
- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [3605] (4.5M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [3606] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [3607] (6.3M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [3608] (1.4M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [3609] (3.3M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [3610] (2.2M)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [3611] (736K)
- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [3612] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [3613] (736K)
- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [3614] (320K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [3615] (96K)

[3597] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[3598] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[3599] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[3600] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[3601] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[3602] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[3603] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[3604] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[3605] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[3606] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[3607] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf
[3608] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
[3609] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[3610] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[3611] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[3612] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[3613] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
[3614] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/SimulinkActorGeneration.ppt
[3615] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt

- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [3616] (2.6M)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [3617] (3.1M)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [3618] (2.3M)
- Feedback control Simulation under the ITM platform (Barana): pdf [3619] (640K)
- Control Toolbox (Ravenel): ppt [3620] (608K)
- Minutes of the ITM meeting on the implementation of controllers within the ITM simulation platform (Konz): Minutes ofthe meeting on control in March 2010 [3621] (96K)

26.4.8 data mappings

- Data Mapping User Guide (Signoret): User Guide [3622] (1.4M)
- Basics on exp2ITM usage. (Signoret): presentation [3623] (2.3M)

26.4.9 diagnostics

- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [3624] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [3625] (3.5M)
- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [3626] (352K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [3627] (96K)

26.4.10 ecrh

- GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini): pdf [3628] (2.3M)
- Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof): pdf [3629] (128K)
- Numerical codes for electron cyclotron heating and current drive (Bertelli): pdf [3630] (288K)
- TORBEAM: Physical Model (Bertelli): pdf [3631] (288K)
- Full-wave modelling of electromagnetic wave propagation with the code FWTOR (Tsironis): pdf [3632] (992K)

[3616] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt
[3617] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[3618] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[3619] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[3620] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[3621] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf
[3622] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
[3623] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[3624] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[3625] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[3626] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[3627] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[3628] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[3629] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[3630] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[3631] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
[3632] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf

- Ray-Tracing Code TRAVIS (Marushchenko): ppt [3633] (320K)

26.4.11 equilibrium

- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [3634] (32K)
- Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows (Calabrò): pdf [3635] (608K)
- Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann): pdf [3636] (1.8M)
- Free Boundary Equilibrium Code CEDRES++ (Blum): pdf [3637] (608K)
- Update on FIXFREE and CREATE-NL (Calabrò): ppt [3638] (1.4M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [3639] (800K)
- Movie: CEDRES++ isoflux (Blum): mpg [3640] (5.4M)
- EQUAL in predictive mode (Zwingmann): ppt [3641] (320K)
- Equilibrium Reconstruction with EQUAL (Zwingmann): ppt [3642] (1.7M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [3643] (12M)

26.4.12 euforia

- Agenda (Strand): pdf [3644] (64K)
- Introduction Impact of EUFORIA (Pr, David) (Strand): pdf [3645] (2.2M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [3646] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [3647] (544K)
- NA2: Training (Adrian) (Jackson): pdf [3648] (96K)
- NA3: Dissemination (Miguel) (Cardenas): pdf [3649] (2.3M)
- SA1: Grid (Marcus) (Hardt): pdf [3650] (1.7M)
- SA2: HPC (Adrian) (Jackson): pdf [3651] (64K)
- SA3: User support (Adrian) (Jackson): pdf [3652] (64K)

[3633] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[3634] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[3635] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[3636] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
[3637] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[3638] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[3639] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[3640] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/isoflux_ITER_T53000_5ms.mpg
[3641] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/equal_pred_wz04.ppt
[3642] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[3643] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[3644] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[3645] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[3646] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[3647] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[3648] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[3649] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[3650] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA1.pdf
[3651] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
[3652] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA3.pdf

- Cloud pilot: Cloud demo (Marcin) (Plociennik): pdf [3653] (192K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [3654] (35M)
- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [3655] (1.5M)
- JRA2 Code adaptation for HPC (Adrian) (Jackson): pdf [3656] (160K)
- Demonstration/Discussion (Antonio, David T) (Tskhakaya): pdf [3657] (896K)
- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [3658] (19M)
- JRA3: workflows (Bernard) (Guillerminet): pdf [3659] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [3660] (704K)
- MHD workflows (Christian) (Konz): pdf [3661] (352K)
- MHD workflows (Christian), movie (Konz): movie [3662] (22M)
- Mixed grid HPC Workflow (Antonio) (Gomez): pdf [3663] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [3664] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [3665] (33M)
- Exploitation and sustainability - (Par, David) (Coster): pdf [3666] (160K)

26.4.13 fast particles

- Fast Particles activities during WP10 (Vlad): pdf [3667] (4.0M)
- IMP5: Energetic Particles (Vlad): pdf [3668] (1.1M)
- Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles (Vlad): pdf [3669] (2.1M)
- Analysis of Runaway Electrons by Numerical Algorithms (Csepany): pdf [3670] (64K)
- IMP5: Energetic Particles (Vlad): ppt [3671] (2.4M)
- ARENA+ in ITM (Pokol): pdf [3672] (416K)

[3653] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[3654] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[3655] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[3656] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[3657] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
[3658] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[3659] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[3660] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[3661] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[3662] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[3663] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[3664] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[3665] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[3666] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[3667] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[3668] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_Energetic_Particles_ITM_GM2010.pdf
[3669] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_HMGC_HYMAGYC_ITM_GM2010.pdf
[3670] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf
[3671] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[3672] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Pokol_ARENA.pdf

26.4.14 general

- ITM (ITM): *ITM* [3673] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [3674] (25M)
- ISIP (ITM): *ISIP* [3675] (2.2M)
- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [3676] (1.5M)
- EDRG (ITM): *EDRG* [3677] (9.3M)
- AMNS (ITM): *AMNS* [3678] (2.1M)
- ISM (ITM): *ISM* [3679] (2.2M)
- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [3680] (2.9M)
- IMP3 Core (ITM): *IMP3 Core* [3681] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [3682] (3.6M)
- IMP4 (ITM): *IMP4* [3683] (2.1M)
- IMP5-I (ITM): *IMP5-I* [3684] (5.6M)
- IMP5-II (ITM): *IMP5-II* [3685] (16M)
- EUFORIA (EUFORIA): *EUFORIA* [3686] (5.3M)
- MAPPER (MAPPER): *MAPPER* [3687] (19M)
- Agenda (IMT): *Agenda* [3688] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [3689] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [3690] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [3691] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [3692] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [3693] (1.8M)

[3673] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[3674] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[3675] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[3676] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[3677] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[3678] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[3679] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[3680] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[3681] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[3682] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[3683] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[3684] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[3685] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[3686] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[3687] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[3688] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[3689] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[3690] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[3691] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[3692] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[3693] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf

- SOAF Framework (Hayashi): *[PDF]* [3694] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [3695] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [3696] (4.1M)
- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [3697] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [3698] (7.2M)
- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [3699] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [3700] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [3701] (1.2M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [3702] (992K)
- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [3703] (576K)
- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [3704] (544K)
- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [3705] (6.7M)
- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [3706] (3.1M)
- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [3707] (896K)
- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [3708] (3.1M)
- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [3709] (4.8M)

[3694] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[3695] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[3696] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[3697] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[3698] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
[3699] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[3700] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[3701] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[3702] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[3703] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[3704] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[3705] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[3706] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[3707] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[3708] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[3709] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf

- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [3710] (4.1M)
- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [3711] (192K)
- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [3712] (416K)
- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [3713] (832K)
- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [3714] (2.3M)
- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [3715] (576K)
- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [3716] (9.5M)
- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [3717] (3.7M)
- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [3718] (1.1M)
- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [3719] (576K)
- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [3720] (832K)
- Integrated Tokamak Modelling TF (Strand): Par Strand's RUSA 2009 Presentation [3721] (5.1M)
- The New ITM Website (Konz): pdf [3722] (1.5M)
- ITER Integrated Modelling Programme (Pinches): ppt [3723] (28M)
- ITM-TF Status and Achievements (Falchetto): ppt [3724] (4.8M)
- AMNS + IMP3 (Coster): ppt [3725] (5.9M)

[3710] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[3711] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf
[3712] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf
[3713] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[3714] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[3715] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[3716] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[3717] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[3718] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[3719] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[3720] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[3721] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf
[3722] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
[3723] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[3724] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[3725] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx

- Overview of EDRG results (Coelho): ppt [3726] (3.5M)
- ISIP 2013 overview (Imbeaux): ppt [3727] (2.2M)
- IMP12 at the end of 2013 (Yadikin): ppt [3728] (7.8M)
- ITM-IMP4 Status & Achievements (Nielsen): ppt [3729] (2.1M)
- IMP5 2013 overview (Farina): ppt [3730] (5.2M)
- INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013 (Voitsekhovitch): pdf [3731] (1.0M)
- Euro-Fusion Code Development for Integrated Modelling Work Package (Falchetto): pdf [3732] (608K)
- ITM Workflows (Coster): ppt [3733] (7.9M)
- Overview of the OMFIT framework (Meneghini): pdf [3734] (17M)
- Tightly-coupled workflows using MUSCLE2 (Hoenen): pdf [3735] (480K)
- The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations (Batchelor): pdf [3736] (5.0M)
- Demo on ETS workflow capabilities (Kalupin): ppt [3737] (6.1M)
- ITM scenarios using IPS (Petruczynik): ppt [3738] (1.8M)
- ITM-TF Status and 2013 WorkPlan (Falchetto): ppt [3739] (3.3M)
- Integrated Modelling for ITER (Pinches): ppt [3740] (8.3M)
- ISIP 2012 overview (Imbeaux): ppt [3741] (1.9M)
- Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho): ppt [3742] (14M)
- Coordination and Provision of AMNS data (Coster): ppt [3743] (1.5M)
- Workflows (Coster): ppt [3744] (8.0M)
- Equilibrium, MHD, and Disruptions (Giovannozzi): ppt [3745] (2.6M)
- IMP3: Transport Code and Discharge Evolution (Coster): ppt [3746] (4.1M)
- IMP4 (Scott): pdf [3747] (352K)
- IMP5 2012 overview (Farina): ppt [3748] (9.0M)
- IMP5: Energetic Particles (Vlad): pdf [3749] (7.4M)

[3726]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[3727]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[3728]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[3729]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[3730]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
[3731]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
[3732]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
[3733]https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
[3734]https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
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[3737]https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
[3738]https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[3739]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[3740]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[3741]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[3742]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[3743]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[3744]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[3745]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[3746]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[3747]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[3748]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[3749]https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf

- INTEGRATED SCENARIO MODELLING (summary of ISM group activities for 2012) (Litaudon): ppt [3750] (4.1M)
- Opening (Falchetto): ppt [3751] (224K)
- ITM Overview (Falchetto): ppt [3752] (2.4M)
- ITER IO Strategy on IM (Houlberg): pdf [3753] (224K)
- Present ITM capabilities (Coster): ppt [3754] (3.0M)
- ISIP (Manduchi): ppt [3755] (1.4M)
- EDRG (Coelho): ppt [3756] (8.6M)
- AMNS (Coster): ppt [3757] (4.3M)
- Equilibrium and MHD stability chain (IMP12) (Zwingmann): ppt [3758] (2.6M)
- IMP3 (Coster): ppt [3759] (5.5M)
- Present status of the General Grid Description and related software (IMP3) (Klingshirn): ppt [3760] (3.5M)
- Integration of heating and fast particles models and composite actor for the ETS (IMP5) (Jonsson): ppt [3761] (2.8M)
- IMP4 (Scott): pdf [3762] (288K)
- The ITM General Grid Description (Klingshirn): ppt [3763] (2.7M)
- Visualization Tools in the ITM (Coster): ppt [3764] (32K)
- Cross project session on Control (Bolzonella): ppt [3765] (2.6M)
- Overview of AMNS activities during 2010 (Eriksson): ppt [3766] (1.8M)
- Overview of ISIP activities during 2010 (Imbeaux): ppt [3767] (3.9M)
- Overview of IMP12 activities during 2010 (Ottaviani): pps [3768] (4.6M)
- Overview of IMP3 activities during 2010 (Coster): ppt [3769] (8.6M)
- Overview of IMP4 activities during 2010 (Scott): pdf [3770] (224K)
- Overview of IMP5 activities during 2010 (Farina): ppt [3771] (3.4M)
- Overview of ISM activities during 2010 (Litaudon): ppt [3772] (1.2M)
- Overview of EDRG activities during 2010 (Coelho): ppt [3773] (18M)

[3750] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[3751] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[3752] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[3753] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[3754] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[3755] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[3756] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[3757] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[3758] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[3759] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[3760] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[3761] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[3762] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[3763] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[3764] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[3765] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[3766] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[3767] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[3768] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[3769] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[3770] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[3771] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
[3772] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
[3773] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt

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- Integrated Modelling in ITER (Houlberg): ppt [3775] (2.3M)
- PRACE (Ottaviani): pps [3776] (160K)
- EUFORIA-Grid and HPC access for Fusion (Plociennik): ppt [3777] (12M)

26.4.15 grid

- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [3778] (1.5M)
- The ITM general grid description: A tutorial (Klingshirn): pdf [3779] (1.3M)

26.4.16 icrh

- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [3780] (6.7M)
- Fast ICRH code for routine analysis (Hellsten): pdf [3781] (736K)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [3782] (6.7M)
- SELFO-light and advanced Fokker-Planck developments (Hellsten): ppt [3783] (4.3M)

26.4.17 infrastructure

- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [3784] (320K)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [3785] (768K)
- Data structures in practice (Imbeaux): Data Structures inPractice [3786] (1.0M)
- Contents of the ITM public database (Imbeaux): ITM PublicDatabase [3787] (32K)
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- The universal access layer user guide (Manduchi): UAL User Guide [3789] (448K)
- ITM gateway user's guide (Guilleminet): Gateway User'sGuide: [3790] (3.9M)
- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [3791] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [3792] (6.0M)
- UAL Tutorial (Imbeaux): UAL tutorial [3793] (32K)
- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [3794] (480K)

[3774] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[3775] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[3776] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[3777] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[3778] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[3779] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
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[3782] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.pdf
[3783] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[3784] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
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[3794] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf

- ISIP tools training (Imbeaux): Introduction: [3795] (416K)
- Exercises (Imbeaux): Exercises: [3796] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [3797] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [3798] (864K)
- Using XML for code specific parameters (Konz): Fortran XML Parser: [3799] (768K)
- WebService Actor Generator (Guillerminet): ppt [3800] (704K)
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- The ITM-TF Simulation Catalogue (Imbeaux): ppt [3803] (1.2M)
- XML2EQ (YAXFI) (Giovannozzi): ppt [3804] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [3805] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [3806] (384K)
- Introduction to ISIP tools (Imbeaux): ppt [3807] (2.1M)
- Exp2ITM : populate ITM database with experimental data (Signoret): ppt [3808] (1.6M)
- Introduction to ISE (Signoret): ppt [3809] (2.2M)
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- The Universal Access Layer User Guide (2009-03-03) (Manduchi): pdf [3811] (288K)
- ITM gateway users's guid (Guillerminet): pdf [3812] (3.9M)
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- Data access for Fusion Simulation (EUFORIA): pdf [3814] (544K)
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- Quick introduction to documentation with Doxygen (Johnson): pdf [3816] (2.9M)
- IMP5: ITM tools a quick start (Johnson): pdf [3817] (1.8M)

[3795] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
[3796] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[3797] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
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[3803] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
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[3815] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[3816] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[3817] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf

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- Fusion Simulation Program (FSP) (Tang): pdf [3828] (1.9M)
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- Universal Access Layer (Manduchi): pdf [3836] (1.1M)
- LSDF - Large Scale Data Facility at KIT (Hardt): pdf [3837] (2.1M)
- Distributed Resources in Kepler (Plociennik): ppt [3838] (1.7M)

[3818] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
[3819] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt
[3820] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Farina_IMP5_Summary.pdf
[3821] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
[3822] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[3823] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[3824] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[3825] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[3826] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[3827] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[3828] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[3829] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[3830] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[3831] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[3832] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[3833] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[3834] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[3835] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[3836] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[3837] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[3838] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt

- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [3839] (2.2M)
- IMP12 Kepler Workflows (Konz): pdf [3840] (1.3M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [3841] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [3842] (3.5M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [3843] (17M)
- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [3844] (896K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [3845] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [3846] (480K)

26.4.18 legal

- ITM software policies and gateway user agreement (Strand): (doc) [3847] (96K)
- ITM software policies and gateway user agreement (Strand): (pdf) [3848] (128K)
- Gateway user agreement - invite (Strand): (doc) [3849] (64K)
- Gateway user agreement - invite (Strand): (pdf) [3850] (32K)
- ITM Software License and rights (Coelho): model licence [3851] (32K)

26.4.19 machine descriptions

- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [3852] (352K)
- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [3853] (3.6M)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [3854] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [3855] (800K)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [3856] (15M)
- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [3857] (960K)

[3839] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[3840] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[3841] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[3842] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[3843] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[3844] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
[3845] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[3846] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf
[3847] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[3848] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
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[3850] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[3851] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf
[3852] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[3853] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[3854] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[3855] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[3856] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[3857] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt

- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [3858] (480K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [3859] (672K)
- 3D Machine Description of Fusion Devices (Lunt): pdf [3860] (4.1M)
- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [3861] (192K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [3862] (4.5M)
- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [3863] (6.1M)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [3864] (4.2M)
- ITM datastructure and tools (Coelho): ITM datastructure and tools (R. Coelho) [3865] (4.3M)
- Code integration in IMP12 (Konz): Code integration in IMP12 (C. Konz) [3866] (6.1M)
- Machine Description User Guide. (Imbeaux): User Guide [3867] (1.2M)
- New angles for the line integrated signals. (Coelho): report [3868] (128K)
- Definition of flux loops in EU-ITM datastructure (Coelho): Flux loop position [3869] (576K)
- PF connections (Coelho): PFconnections [3870] (64K)
- Langmuir CPO (Coelho): Langmuir probes [3871] (576K)
- Fusion CPO (Coelho): Fusion CPO [3872] (256K)

26.4.20 mhd

- Sawteeth and Neoclassical Tearing Modes Workflows (Sauter): ppt [3873] (832K)
- Status of MARS-F and CarMa codes on ITM (Yadykin): ppt [3874] (1.1M)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [3875] (2.3M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [3876] (12M)

26.4.21 monitoring

- Call for participation - 2009 Work programme (Coelho): Call for Participation [3877] (1.7M)
- Annual Report 2009 (Coelho): Annual Reporting [3878] (256K)
- Call for participation - 2010 Work programme (Coelho): Call for Participation [3879] (224K)

[3858] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[3859] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[3860] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[3861] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[3862] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[3863] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[3864] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[3865] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[3866] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[3867] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[3868] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Convention_angles_interfdiag.pdf
[3869] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FLUXLOOPposition.pdf
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[3873] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[3874] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[3875] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[3876] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[3877] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[3878] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[3879] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf

- Annual Report 2010 (Coelho): Annual Reporting [3880] (4.4M)
- Integrated Simulation Editor (Signoret): ppt [3881] (960K)
- Control Gantt Chart (Konz): Gantt Chart [3882] (32K)
- Current ETS timeline (Gantt chart) (Coster): (PDF) [3883] (32K)
- Current ETS timeline (Gantt chart) (Coster): (MS Project) [3884] (256K)
- Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand): Validation Procedure (Draft) [3885] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix) (Strand): Validation Procedure (Appendix) [3886] (288K)

26.4.22 nbi

- Neutral Beam Injection in ITM (Schneider): pdf [3887] (480K)
- Modelling NBI in ITM environment with ASCOT (Asunta): pdf [3888] (480K)
- Present status of NBI codes for ITM (Schneider): pdf [3889] (480K)

26.4.23 numerics

- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [3890] (192K)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [3891] (128K)

26.4.24 scenario

- Integrated Scenario Modelling, ISM, Workprogramme (Litaudon): pdf [3892] (672K)
- ITER Hybrid Regime: modelling requests (Houlberg): pdf [3893] (864K)
- JET hybrid regime: requests for modelling (Joffrin): pdf [3894] (1.7M)
- Modelling of hybrid regime - present status (Parail): pdf [3895] (896K)
- ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk): pdf [3896] (1.4M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [3897] (2.0M)

[3880] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf
[3881] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[3882] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf
[3883] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[3884] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.mpp
[3885] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
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[3887] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[3888] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[3889] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[3890] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf
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[3893] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[3894] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf
[3895] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
[3896] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[3897] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt

- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch): ppt [3898] (1.4M)
- Report on paper on density and fuelling on ITER (Garzotti): ppt [3899] (64K)
- Current ramp-up wrapup and publication (Imbeaux): ppt [3900] (1.1M)
- Welcome and agenda (Voitsekhovitch): pdf [3901] (1.9M)
- Current rampdown at JET: experimental results and modelling tasks (Nunes): pdf [3902] (7.3M)
- Hybrid experiments for ISM modelling (Joffrin): ppt [3903] (2.0M)
- Agenda (Voitsekhovitch): ppt [3904] (32K)
- JET DT fusion yield projections (Challis): ppt [3905] (6.5M)
- Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement (Weisen): ppt [3906] (384K)
- JET high field/high current H-mode - extrapolation to DT operation (Voitsekhovitch): ppt [3907] (480K)
- Current diffusion analysis on JET hybrid shots (Garcia): ppt [3908] (384K)
- New simulations of ITER hybrid scenario (Garcia): ppt [3909] (352K)
- ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl): ppt [3910] (800K)
- Parameters for EPED simulations (Litaudon): ppt [3911] (640K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): ppt [3912] (7.2M)
- Impurity concentration during the current ramp up (Belo): ppt [3913] (1.3M)
- Predictive modelling of current ramp-down in JET discharges (Lonnroth): pdf [3914] (1.7M)
- JET current ramp down with METIS code (Artaud): ppt [3915] (480K)
- Update on ISM-P2-2010/11-08: ASDEX hybrid modelling (Citrin): ppt [3916] (1.1M)
- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [3917] (480K)
- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [3918] (224K)

[3898] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[3899] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[3900] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[3901] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[3902] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[3903] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Joffrin-ISM-29-11-2010.ppt
[3904] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Agenda_DT.ppt
[3905] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Challis_DT_fusion_yield_projections_ISM_30Nov2010.ppt
[3906] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Thomasalphaheatingsummary.ppt
[3907] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/DT_Hmode_Voits.pdf
[3908] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/neocladif.ppt
[3909] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/newhybrid.ppt
[3910] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[3911] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
[3912] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[3913] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[3914] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
[3915] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Artaud_rampdown.ppt
[3916] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt
[3917] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JET_77922_77914_JETTO_Koechl.ppt
[3918] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt

- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [3919] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [3920] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon): ppt [3921] (1.9M)
- Conclusion working session Culham (Litaudon): ppt [3922] (544K)
- Agenda (Litaudon): pdf [3923] (544K)
- Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives (Voitsekhovitch): ppt [3924] (896K)
- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling (Houlberg): ppt [3925] (320K)
- On core-SOL Integration in Scenario Modelling for ITER (Kukushkin): pdf [3926] (352K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): pdf [3927] (1.1M)
- Fully predictive modelling of L-H and H-L transition (Parail): ppt [3928] (2.8M)
- ETS (Coster): ppt [3929] (13M)
- Simulations of the H to L transition in JET plasmas (Belo): ppt [3930] (4.1M)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [3931] (192K)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [3932] (96K)
- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch): ppt [3933] (1.5M)
- JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi): ppt [3934] (6.8M)
- First CRONOS simulation of JT60-SA (Schneider): pdf [3935] (1.4M)
- LHCD in JT60_SA: a preliminary study (Barbato): pdf [3936] (288K)
- Next ISM working session: a word from the LOC (Hogeweij): pptx [3937] (12M)
- Status of edge modelling with EDGE2D for ITER Hybrid Scenaio (Harting): ppt [3938] (448K)
- SOUL1D benchmark using EDGE2D models and JET reference shots (Guillemaut): ppt [3939] (640K)
- Predictive modelling of H-L transition in JET (Parail): ppt [3940] (512K)

[3919] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[3920] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
[3921] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[3922] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[3923] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
[3924] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt
[3925] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
[3926] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/AK-ISM.pdf
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[3928] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
[3929] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[3930] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[3931] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
[3932] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/hybrid_garcia_ism_meeting.pdf
[3933] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt
[3934] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
[3935] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf
[3936] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[3937] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[3938] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[3939] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
[3940] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Parail_PredictivemodellingofH-LtransitioninJET.ppt

- Report on AUG modelling (Hobirk): ppt [3941] (768K)
- ETS validation (Basiuk): ppt [3942] (800K)
- Optimizing ITER current ramp-up for hybrid scenario (Hogeweij): ppt [3943] (224K)
- ITER hybrid density modelling: current status (Koechl): ppt [3944] (160K)
- Optimisation of operational space for long pulse scenarios (Polevoi): doc [3945] (64K)
- Optimisation of operational space for long pulse scenarios: xml table (Polevoi): xml [3946] (64K)
- Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi): doc [3947] (128K)
- First modelling of JT-60SA (Giruzzi): ppt [3948] (3.3M)
- Agenda (Litaudon): doc [3949] (128K)
- Introduction (Litaudon): ppt [3950] (928K)
- Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch): ppt [3951] (2.3M)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [3952] (2.3M)
- Update on hybrid scenario (Garcia): ppt [3953] (704K)
- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar): pdf [3954] (2.3M)
- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici): pdf [3955] (3.8M)
- Modeling development for control for ITER advanced scenarios (Casper): pdf [3956] (1.8M)
- Current ramp up in JET hybrid scenarios (Voitsekhovitch): pdf [3957] (1.3M)
- Introduction (Litaudon): pdf [3958] (384K)
- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch): pdf [3959] (672K)
- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [3960] (224K)
- Analysis of current diffusion on ASDEX-Upgrade (Garcia): ppt [3961] (512K)
- Optimisation of the current ramp up phase for hybrid ITER discharges (Hogeweij): ppt [3962] (512K)
- #77922: current ramp-down (Koechl): ppt [3963] (128K)
- Update on hybrid scenario (Garcia): ppt [3964] (736K)

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[3942] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[3943] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_ITERhybridramp_upHogeweijISM11mar2011.ppt
[3944] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[3945] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[3946] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[3947] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[3948] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[3949] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[3950] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[3951] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[3952] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[3953] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[3954] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
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[3958] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
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[3961] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[3962] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[3963] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
[3964] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_rampdown.ppt

- MHD stability analysis at ISM working session (Lonnroth): ppt [3965] (9.3M)
- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [3966] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [3967] (2.2M)
- Agenda (Litaudon): pdf [3968] (160K)
- Welcome (Voitsekhovitch): pdf [3969] (576K)
- Introduction (Litaudon): ppt [3970] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [3971] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [3972] (4.1M)
- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [3973] (864K)
- Introduction (Litaudon): ppt [3974] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [3975] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [3976] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [3977] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [3978] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [3979] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [3980] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [3981] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [3982] (2.8M)
- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [3983] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [3984] (192K)
- Edge modelling resources - November 2011 (Groth): ppt [3985] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [3986] (2.2M)

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[3967] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
[3968] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[3969] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[3970] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[3971] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[3972] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[3973] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
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[3976] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
[3977] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.1.5_Modelling.ppt
[3978] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt
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[3980] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[3981] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
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[3983] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[3984] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
[3985] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[3986] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf

- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [3987] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [3988] (2.1M)
- Introduction (Litaudon): ppt [3989] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [3990] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [3991] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [3992] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [3993] (992K)
- L-H and H-L transition (Belo): ppt [3994] (704K)
- LHCD during JET current ramp up (Barbato): pdf [3995] (416K)
- Particle transport in JET and ITER HS (Garzotti): ppt [3996] (192K)
- Real time control (Liu): pptx [3997] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [3998] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [3999] (3.0M)
- Local information (Koechl): ppt [4000] (2.9M)
- Agenda (Litaudon): pdf [4001] (64K)
- Introduction (Litaudon): ppt [4002] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [4003] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [4004] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [4005] (1.9M)
- NCLASS benchmark (Basiuk): ppt [4006] (544K)
- Current diffusion in hybrid scenarios (Garcia): ppt [4007] (352K)
- Density simulation in JET HS (Garzotti): ppt [4008] (576K)
- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [4009] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [4010] (416K)

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[3991] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
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[3993] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
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[3996] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt
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[4002] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[4003] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
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- Free boundary equilibrium transport simulations of ITER scenarios under control (Urban): ppt [4011] (640K)
- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [4012] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [4013] (864K)
- Implementation of the JT-60SA NBI configuration in EU transport codes (Bolzonella): ppt [4014] (1.5M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): ppt [4015] (672K)
- Predictive simulations of JT60-SA (Garzotti): ppt [4016] (1.0M)
- Welcome and local information (Voitsekhovitch): ppt [4017] (352K)
- Agenda (Litaudon): ppt [4018] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [4019] (576K)
- Pulses for analysis with the ILW (Joffrin): ppt [4020] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [4021] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [4022] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [4023] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [4024] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [4025] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [4026] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [4027] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [4028] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [4029] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [4030] (288K)
- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [4031] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [4032] (320K)
- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [4033] (2.6M)

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[4020] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
[4021] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[4022] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[4023] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[4024] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[4025] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[4026] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx
[4027] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
[4028] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[4029] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[4030] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[4031] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[4032] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt
[4033] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Figueiredo.pdf

- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [4034] (1.7M)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [4035] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [4036] (416K)
- H-L transition with ITER like wall (Belo): ppt [4037] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [4038] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [4039] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [4040] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [4041] (832K)
- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [4042] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [4043] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [4044] (480K)
- Conclusions, information (Litaudon): ppt [4045] (640K)
- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [4046] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [4047] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [4048] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [4049] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [4050] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [4051] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [4052] (544K)
- European Transport Solver Status (Basiuk): ppt [4053] (608K)
- Code camp report (Figueiredo): pdf [4054] (288K)
- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [4055] (22M)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [4056] (2.9M)

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[4035] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Hogeweij_ISM_23Nov2012_ITERlike_RURD_qprofile_Analysis.ppt
[4036] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
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[4039] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Barbato_ISM_WG_22Nov12.pptx
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[4043] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[4044] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[4045] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
[4046] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Voitsekhovitch_Garcia_ISMWS1.pdf
[4047] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/JET_JT60U_jeronimo_ISM.pptx
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[4053] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Basiuk_ISM_2013_status_ETS_C.ppt
[4054] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[4055] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[4056] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ACT1_ivanova.ppt

- Linear Stability Chain in the new gateway (Nabais): ppt [4057] (4.6M)
- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [4058] (736K)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [4059] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [4060] (288K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [4061] (192K)
- Activity within ISM (Barbato): pptx [4062] (320K)
- Closing of working session (Voitsekhovitch): pdf [4063] (224K)
- Agenda and working groups (Voitsekhovitch): pdf [4064] (256K)
- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [4065] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [4066] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [4067] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [4068] (288K)
- Agenda (Voitsekhovitch): pdf [4069] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [4070] (3.5M)
- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [4071] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [4072] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [4073] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [4074] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [4075] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [4076] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [4077] (2.4M)
- Agenda (Voitsekhovitch): pdf [4078] (96K)
- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [4079] (640K)

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[4061] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_ISMWS_March2013.ppt
[4062] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Barbato_ISM_15_3_13.pptx
[4063] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_Garcia_ISMWS1_closing.pdf
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[4066] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
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- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [4080] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [4081] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [4082] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [4083] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [4084] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [4085] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [4086] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [4087] (96K)
- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [4088] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [4089] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [4090] (1.1M)
- Agenda (Voitsekhovitch): ppt [4091] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [4092] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [4093] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [4094] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [4095] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [4096] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [4097] (2.5M)
- Introduction meeting 29 September (Litaudon): pdf [4098] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [4099] (320K)
- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [4100] (288K)
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[4101] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_introduction.pdf

- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [4102] (1.2M)
- Optimization of the EC Launchers (Henderson): pdf [4103] (3.2M)
- Introduction meeting 10 November (Litaudon): pdf [4104] (224K)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [4105] (1.5M)
- Introduction meeting 24 November (Litaudon): pdf [4106] (224K)
- Introduction meeting 19 January 2011 (Litaudon): pdf [4107] (608K)
- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [4108] (160K)
- Optimisation of operational phase for long-pulse scenarios (Polevoi): pdf [4109] (160K)
- Introduction meeting 9 February 2011 (Litaudon): pdf [4110] (544K)
- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [4111] (320K)
- Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch): pdf [4112] (160K)
- Introduction meeting 16 February 2011 (Litaudon): pdf [4113] (192K)
- Benchmark the ETS/impurity code against SANCO (Belo): pdf [4114] (544K)
- EMC3-EIRENE 3D fluid SOL code package (Harting): pdf [4115] (256K)
- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [4116] (128K)
- Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon): ppt [4117] (1.4M)
- Introduction meeting 6 April 2011 (Litaudon): ppt [4118] (896K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results (Garzotti): pdf [4119] (384K)
- Validation exercise of the Kepler Workflow (Basiuk): pdf [4120] (64K)
- Summary report on ISM WS & ETS CC: ETS benchmarking (Voitsekhovitch): pdf [4121] (256K)
- Introduction meeting 27 April 2011 (Litaudon): pdf [4122] (1.6M)
- IOS/ITPA activities (Litaudon): ppt [4123] (32K)
- Optimizing ITER Current Ramp-up for hybrid scenario (Hogeweij): pdf [4124] (224K)

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[4124] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf

- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [4125] (1.8M)
- Introduction meeting 11 May 2011 (Litaudon): pdf [4126] (288K)
- ETS V&V activity during coming Code Camp 23-27 May Helsinki (Voitsekhovitch): pdf [4127] (224K)
- Analysis of the hybrid shot 77280 (Garcia): pdf [4128] (96K)
- Introduction meeting 8 June 2011 (Litaudon): pdf [4129] (192K)
- Summary of Chapter 2: Theoretical models and simulation codes (Giruzzi): pdf [4130] (352K)
- Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model (Fable): pdf [4131] (1.8M)
- Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO (Voitsekhovitch): pdf [4132] (832K)
- Introduction meeting 22 June 2011 (Litaudon): pdf [4133] (224K)
- Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti): pdf [4134] (1.3M)
- ISM report: comparison between Kadomtsev and 'continuous' sawtooth reconnection model in JINTRAC (Parail): pdf [4135] (192K)
- Simulations of the H to L transition in JET plasmas (EPS 2011) (Belo): pdf [4136] (384K)
- Predictive transport analysis of JET and AUG hybrid scenarios (EPS 2011) (Citrin): pdf [4137] (1.5M)
- Optimization of current ramp up phase for hybrid ITER discharges (EPS 2011) (Hogeweij): pdf [4138] (160K)
- Introduction meeting 7 September 2011 (Litaudon): pdf [4139] (288K)
- SOUL: a 1D SOL module for CRONOS (Goswami): pdf [4140] (384K)
- Chapter 10: Theoretical modeles and simulation codes (Giruzzi): pdf [4141] (192K)
- Plasma scenarios for JT60SA (Joffrin): pdf [4142] (608K)
- Introduction meeting 28 September 2011 (Litaudon): pdf [4143] (224K)
- Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch): pdf [4144] (4.5M)
- Introduction meeting 12 October 2011 (Litaudon): pdf [4145] (224K)
- Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail): pdf [4146] (3.7M)

[4125] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Citrin_AUGandJETmodellingupdate_2742011.ppt
[4126] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Litaudon_introduction.pdf
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[4130] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Giruzzi_ISM_Chapter_2.pdf
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[4134] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Garzotti_22_06_2011.pdf
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[4139] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Litaudon_introduction.pdf
[4140] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Goswami_july_25_2011.pdf
[4141] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Giruzzi_ISM_Chapter_10.pdf
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[4145] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Litaudon_introduction.pdf
[4146] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Parail.pdf

- Update on current ramp up modelling (T&C ITPA meeting) (Voitsekhovitch): pdf [4147] (1.7M)
- General information and preparation to the ISM working session November 7-11 2011 (Voitsekhovitch): ppt [4148] (960K)
- Introduction meeting 23 November 2011 (Litaudon): ppt [4149] (1.1M)
- Optimizing the current ramp-up phase for the hybrid ITER scenario (Hogeweij): pdf [4150] (1.2M)
- Integrated ITER scenario modelling and density evolution prospects (Koechl): pdf [4151] (288K)
- A theory-based criterion for Internal Transport Barrier formation (Militello): pdf [4152] (672K)
- Introduction meeting 25 January 2012 (Litaudon): ppt [4153] (832K)
- DEMO modelling using PROCESS (Kemp): ppt [4154] (384K)
- Pellet DEMO (Garzotti): ppt [4155] (2.5M)
- Introduction meeting 8 February 2012 (Litaudon): pdf [4156] (384K)
- ACT1 restart (Voitsekhovitch): pdf [4157] (736K)
- Introduction meeting 22 February 2012 (Litaudon): pdf [4158] (224K)
- Modelling of kick-triggered ELMs at JET - current status (Koechl): pdf [4159] (416K)
- Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch): pdf [4160] (2.0M)
- Introduction meeting 25 April 2012 (Litaudon): pdf [4161] (256K)
- IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch): pdf [4162] (960K)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [4163] (192K)
- Introduction meeting 13 June 2012 (Litaudon): ppt [4164] (384K)
- Integrated core-edge modelling for JET Hybrid scenario (Belo): ppt [4165] (1.3M)
- Simulations of ASDEX-Upgrade HS with Bohm-gyroBohm transport model (Voitsekhovitch): ppt [4166] (512K)
- Linear gyro-kinetic analysis with GYRO code for shot 77922 (Moradi): pdf [4167] (2.3M)
- Introduction meeting 20 June 2012 (Litaudon): pdf [4168] (192K)

[4147] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[4148] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[4149] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
[4150] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
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[4153] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
[4154] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/rk_process_demo_ISM_jan_2012.ppt
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[4156] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Litaudon_introduction.pdf
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[4166] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[4167] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[4168] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf

- Integrated modelling for tokamak plasma: physics and scenario optimisation (Voitsekhovitch): pdf [4169] (256K)
- Modelling of ELM mitigation at JET (Koechl): pdf [4170] (2.1M)
- Density simulation in JET HS (Garzotti): pdf [4171] (128K)
- Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban): pdf [4172] (4.0M)
- A new free-boundary equilibrium evolution code, FREEBIE (Kim): pdf [4173] (896K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pdf [4174] (384K)
- Integrated modelling of JT-60SA scenarios with the METIS code (Giruzzi): pdf [4175] (448K)
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- Introduction and ISM IAEA Modelling of Hybrid Scenario: from present-day experiments toward ITER (Litaudon): pdf [4177] (2.1M)
- The EU ITM-TF effort - Achievements and First Physics Results (Falchetto): pdf [4178] (1.1M)
- The European Transport Solver (ETS): an integrated approach for transport simulations in the plasma core (Kalupin): pdf [4179] (256K)
- Introduction and IOS-ITPA 2012 summary (Litaudon): pdf [4180] (2.0M)
- Status of scenario studies for WEST (Imbeaux): pdf [4181] (640K)
- Progress in the simulation of JET hybrid pulse 77922 with the European Transport Solver (Figueiredo): pdf [4182] (2.2M)
- LHCD simulation by ASTRA/FRTC of JET discharges (Barbato): pdf [4183] (4.5M)
- Short update on particle transport modelling following EPS conference (Garzotti): pdf [4184] (96K)
- Organisation of modelling activities in 2013 (Voitsekhovitch): pdf [4185] (544K)
- Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement (Baranov): pdf [4186] (16M)
- ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013 (Voitsekhovitch): pdf [4187] (512K)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [4188] (1.1M)

[4169] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[4170] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[4171] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
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[4185] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
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[4188] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf

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- Role of fast ions in hybrid scenarios (Garcia): pdf [4191] (896K)
- Role of impurities in ITER-like ramp up in JET (Hogeweij): pdf [4192] (2.6M)
- ISM news and coming events, preparation to 2nd ISM working session 2013 (Voitsekhovitch): pdf [4193] (256K)
- DEMO preliminary scenario analysis: introduction and METIS simulations (Giruzzi): ppt [4194] (1.3M)
- Summary of WP12-SYS02 activity on DEMO1 scenario profile consistency (Fable): pdf [4195] (672K)
- Simulations with COREDIV code of DEMO discharges (Zagorski): ppt [4196] (1.4M)
- NBI simulations for DEMO1 (Baruzzo): ppt [4197] (3.7M)
- DEMO1 profile consistency and sensitivity studies by METIS (Bolzonella): pdf [4198] (224K)
- JINTRAC simulations for DEMO (Garzotti): ppt [4199] (256K)
- ISM news and coming events (Voitsekhovitch): pdf [4200] (192K)
- Modelling of JET hybrid scenarios with the European Transport Solver (Figueiredo): pdf [4201] (2.5M)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [4202] (992K)
- Integrated core+edge+MHD modelling of ELM mitigation at JET (Koechl): ppt [4203] (4.2M)
- Current density modelling in JET and JT-60U identity plasma experiments (Siren): pdf [4204] (1.5M)
- ISM news and coming events (Voitsekhovitch): pdf [4205] (224K)
- Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density (Ivanova-Stanik): pdf [4206] (416K)
- ISM news and coming events (Voitsekhovitch): pdf [4207] (224K)
- Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control (Hogeweij): ppt [4208] (6.1M)

[4189] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf
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[4208] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt

- PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS (Garcia): ppt [4209] (35M)
- Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch): ppt [4210] (768K)
- ISM news and coming events (Voitsekhovitch): ppt [4211] (672K)
- ITPA summary (Garcia): ppt [4212] (5.3M)
- EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch): ppt [4213] (1.4M)

26.4.25 standard

- GRAY: quasi-optical ray-tracing code for ECH/CD (Figini): pdf [4214] (480K)

26.4.26 transport

- Movie: Psi evolution (shot 5 run 42) (Coster): mpg [4215] (32M)
- Movie: Ne/Te/q evolution (shot 5 run 42) (Coster): mpg [4216] (30M)
- User Guide for the ETS (Coster): ETS User Guide [4217] (3.3M)
- ETS transport equations and list of variables (Kalupin): Description of the ETS [4218] (352K)
- Standardized equations (unknown): Form of the standardizeequations [4219] (128K)
- ETS: European Transport Solver - Current Status (Coster): ETS Status [4220] (19M)
- ETS Doxyfile (Coster): (PDF) [4221] (84M)
- The European Transport Solver (Coster): Presentation at ICNSP-2009 on the ETS [4222] (25M)
- Core-Edge Transport Coupling Via Manual Intervention (Coster and Klingshirn): this document [4223] (15M)
- Presentation to ISM about the ETS (Coster): ppt [4224] (13M)
- Status of Edge Codes on the Gateway (Subba): ppt [4225] (2.2M)
- Status of grids in CPOS + edge CPOS (Subba): ppt [4226] (1.2M)
- European Transport Workflows - first results, validation and benchmark (Basiuk): pdf [4227] (800K)

[4209] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[4210] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
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[4216] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/comb_psi_5_42.900x400.mpg
[4217] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[4218] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[4219] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[4220] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[4221] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf
[4222] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[4223] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf
[4224] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[4225] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[4226] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[4227] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf

- European Transport Solver (Coster): pdf [4228] (5.3M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [4229] (3.7M)
- Full tokamak simulation global workflow case study (Lister): pdf [4230] (64K)
- Agenda (Coster): pdf [4231] (32K)
- Introduction (Coster): ppt [4232] (2.9M)
- Talk given at the JET TF-T Meeting earlier in the year on the ETS (Coster): ppt [4233] (5.7M)
- ETS Status and Standards (reduced) (Coster): ppt [4234] (864K)
- ETS Numerics Quality Assessment / Verification (Pereverzev): pdf [4235] (96K)
- Accuracy tests (Pereverzev): pdf [4236] (64K)
- ETS benchmarking and verification: Intermediate report (ASTRA results) (Pereverzev): pdf [4237] (96K)
- Proposal for ETS verification and benchmarking procedure (Pereverzev): pdf [4238] (96K)
- EFDA Transport Topical Group: survey of research activities (Angioni): ppt [4239] (7.9M)
- ETS Status and Standards (v1) (Coster): pdf [4240] (2.1M)
- Requests to other projects (Coster): doc [4241] (64K)
- Work plan and Resources for the ETS in 2009 (Coster): doc [4242] (128K)
- Current status of the ETS (present at the JET TFT meeting) (Coster): pdf [4243] (768K)
- ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009) (Coster): pdf [4244] (4.8M)
- Closure of equilibriumtransport set / Data flow (Pereverzev): pdf [4245] (32K)
- ETS transport equations and list of variables (2008-08-01) (Coster): pdf [4246] (352K)
- IMP3 2009 Kick-Off (Coster): pdf [4247] (640K)
- Collaboration Issue: Standards (Coster): pdf [4248] (576K)
- ETS Road Map (2009) (Coster): doc [4249] (32K)

[4228] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[4229] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf
[4230] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[4231] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Agenda.pdf
[4232] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/2010-03_WS-CC_ETS_v1.ppt
[4233] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[4234] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
[4235] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/CodeCampPereverzev.pdf
[4236] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/AccuracyAssessment.pdf
[4237] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/BenchmarkAstra.pdf
[4238] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/VandB-1st.pdf
[4239] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
[4240] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[4241] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[4242] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Work_plan_and_Resources_for_the_ETS_in_2009_v3.doc
[4243] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/2009_JET_TFT_ETS.pdf
[4244] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[4245] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EqTrInterface.pdf
[4246] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_TRANSPORT_EQUATIONS.pdf
[4247] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[4248] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[4249] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc

- evolving equilibrium (Coster): movie1 [4250] (32M)
- evolving plasma (Coster): movie2 [4251] (33M)

26.4.27 turbulence

- The IMP4 wrapper for running IMP4 codes in UAL framework (Reiser): pdf [4252] (224K)

26.4.28 workflows

- Parallel I/O in Simulation Workflows (Galonska): ppt [4253] (4.8M)
- ETS - Free Boundary Equilibrium (Coster): ppt [4254] (13M)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [4255] (5.5M)
- DINA-CH full tokamak simulator (Lister): pdf [4256] (1.3M)
- Movie: DINA plasma boundary (Lister): mpg [4257] (1.1M)
- Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz): pdf [4258] (96K)
- DINA-CH workflow (Besseghir): pdf [4259] (32K)
- DINA-CH and CRONOS: Full tokamak discharge simulator (Kim): pdf [4260] (896K)
- Introduction ETS training 2011 (Huynh): Introduction training 2011, [4261] (512K)
- ETS_C training 2011 (Huynh): training 2011 [4262] (1.2M)
- Running ETS in KEPLER (Kalupin): User Guide [4263] (7.0M)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.5 Documents (sorted by type)

26.5.1 administrative

- Call for participation - 2009 Work programme (Coelho): Call for Participation [4264] (1.7M)
- Annual Report 2009 (Coelho): Annual Reporting [4265] (256K)

[4250] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[4251] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[4252] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[4253] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[4254] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/ETS-FBE.ppt
[4255] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
[4256] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/FullTokamakSolvers_20101108_v2.pdf
[4257] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/frontiere_DINA.mpg
[4258] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Minutes_FBE_Transport_2010.pdf
[4259] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
[4260] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_and_CRONOS_working_scheme_and_equations-Kim.pdf
[4261] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
[4262] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf
[4263] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[4264] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[4265] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf

- Call for participation - 2010 Work programme (Coelho): Call for Participation [4266] (224K)
- Annual Report 2010 (Coelho): Annual Reporting [4267] (4.4M)
- ITM software policies and gateway user agreement (Strand): (doc) [4268] (96K)
- ITM software policies and gateway user agreement (Strand): (pdf) [4269] (128K)
- Gateway user agreement - invite (Strand): (doc) [4270] (64K)
- Gateway user agreement - invite (Strand): (pdf) [4271] (32K)
- ITM Software License and rights (Coelho): model licence [4272] (32K)
- Control Gantt Chart (Konz): Gantt Chart [4273] (32K)
- Current ETS timeline (Gantt chart) (Coster): (PDF) [4274] (32K)
- Current ETS timeline (Gantt chart) (Coster): (MS Project) [4275] (256K)

26.5.2 documentation

- User Guide for the ETS (Coster): ETS User Guide [4276] (3.3M)
- ETS transport equations and list of variables (Kalupin): Description of the ETS [4277] (352K)
- Standardized equations (unknown): Form of the standardizeequations [4278] (128K)
- ETS: European Transport Solver - Current Status (Coster): ETS Status [4279] (19M)
- ETS Doxyfile (Coster): (PDF) [4280] (84M)

26.5.3 monitoring

- Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz): pdf [4281] (96K)

26.5.4 movie

- Movie: Psi evolution (shot 5 run 42) (Coster): mpg [4282] (32M)
- Movie: Ne/Te/q evolution (shot 5 run 42) (Coster): mpg [4283] (30M)
- Movie: DINA plasma boundary (Lister): mpg [4284] (1.1M)
- Movie: CEDRES++ isoflux (Blum): mpg [4285] (5.4M)
- ITER PF Validation (Houlberg): wmv [4286] (12M)

[4266] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf
[4267] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf
[4268] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[4269] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
[4270] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[4271] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[4272] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf
[4273] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf
[4274] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[4275] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.mpp
[4276] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[4277] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[4278] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[4279] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[4280] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf
[4281] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Minutes_FBE_Transport_2010.pdf
[4282] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/psi_5_42.mpg
[4283] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/comb_psi_5_42.900x400.mpg
[4284] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/frontiere_DINA.mpg
[4285] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/isoflux_ITER_T53000_5ms.mpg
[4286] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv

- evolving equilibrium (Coster): movie1 [4287] (32M)
- evolving plasma (Coster): movie2 [4288] (33M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [4289] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [4290] (544K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [4291] (35M)
- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [4292] (19M)
- MHD workflows (Christian), movie (Konz): movie [4293] (22M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [4294] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [4295] (33M)

26.5.5 paper

- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [4296] (128K)

26.5.6 poster

- ITM (ITM): *ITM* [4297] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [4298] (25M)
- ISIP (ITM): *ISIP* [4299] (2.2M)
- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [4300] (1.5M)
- EDRG (ITM): *EDRG* [4301] (9.3M)
- AMNS (ITM): *AMNS* [4302] (2.1M)
- ISM (ITM): *ISM* [4303] (2.2M)
- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [4304] (2.9M)
- IMP3 Core (ITM): *IMP3 Core* [4305] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [4306] (3.6M)
- IMP4 (ITM): *IMP4* [4307] (2.1M)
- IMP5-I (ITM): *IMP5-I* [4308] (5.6M)

[4287] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[4288] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
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[4293] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[4294] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
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[4300] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[4301] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[4302] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[4303] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
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[4306] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[4307] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[4308] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt

- IMP5-II (ITM): *IMP5-II* [4309] (16M)
- EUFORIA (EUFORIA): *EUFORIA* [4310] (5.3M)
- MAPPER (MAPPER): *MAPPER* [4311] (19M)
- 3D Machine Description of Fusion Devices (Lunt): pdf [4312] (4.1M)
- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [4313] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [4314] (3.5M)
- WebService Actor Generator (Guillerminet): ppt [4315] (704K)
- HPC2K - GRID and HPC Actor Generator (Guillerminet): ppt [4316] (1.5M)
- Parallel I/O in Simulation Workflows (Galonska): ppt [4317] (4.8M)
- Exp2ITM - a generic access to shot based data for European Tokamaks (Signoret): ppt [4318] (704K)
- Integrated Simulation Editor (Signoret): ppt [4319] (960K)
- Feedback control Simulation under the ITM platform (Barana): pdf [4320] (640K)
- Control Toolbox (Ravenel): ppt [4321] (608K)
- The ITM-TF Simulation Catalogue (Imbeaux): ppt [4322] (1.2M)
- Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows (Calabrò): pdf [4323] (608K)
- The New ITM Website (Konz): pdf [4324] (1.5M)
- Sawteeth and Neoclassical Tearing Modes Workflows (Sauter): ppt [4325] (832K)
- Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann): pdf [4326] (1.8M)
- Free Boundary Equilibrium Code CEDRES++ (Blum): pdf [4327] (608K)
- Status of MARS-F and CarMa codes on ITM (Yadykin): ppt [4328] (1.1M)
- Status of Edge Codes on the Gateway (Subba): ppt [4329] (2.2M)
- Status of grids in CPOS + edge CPOS (Subba): ppt [4330] (1.2M)
- European Transport Workflows - first results, validation and benchmark (Basiuk): pdf [4331] (800K)
- European Transport Solver (Coster): pdf [4332] (5.3M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [4333] (3.7M)

[4309] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[4310] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[4311] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[4312] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[4313] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[4314] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[4315] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
[4316] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[4317] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[4318] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[4319] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[4320] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[4321] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[4322] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[4323] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[4324] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
[4325] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[4326] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
[4327] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[4328] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[4329] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[4330] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[4331] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[4332] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[4333] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf

- Full tokamak simulation global workflow case study (Lister): pdf [4334] (64K)
- The IMP4 wrapper for running IMP4 codes in UAL framework (Reiser): pdf [4335] (224K)
- GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini): pdf [4336] (2.3M)
- Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof): pdf [4337] (128K)
- Neutral Beam Injection in ITM (Schneider): pdf [4338] (480K)
- Modelling NBI in ITM environment with ASCOT (Asunta): pdf [4339] (480K)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [4340] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [4341] (192K)
- Fast Particles activities during WP10 (Vlad): pdf [4342] (4.0M)

26.5.7 presentation

- Agenda (IMT): *Agenda* [4343] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [4344] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [4345] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [4346] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [4347] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [4348] (1.8M)
- SOAF Framework (Hayashi): *[PDF]* [4349] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [4350] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [4351] (4.1M)

[4334] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[4335] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[4336] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[4337] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[4338] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[4339] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[4340] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.pdf
[4341] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf
[4342] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[4343] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[4344] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[4345] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[4346] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[4347] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[4348] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[4349] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[4350] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[4351] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt

- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [4352] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [4353] (7.2M)
- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [4354] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [4355] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [4356] (1.2M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [4357] (992K)
- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [4358] (576K)
- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [4359] (544K)
- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [4360] (6.7M)
- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [4361] (3.1M)
- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [4362] (896K)
- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [4363] (3.1M)
- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [4364] (4.8M)
- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [4365] (4.1M)
- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [4366] (192K)

[4352] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[4353] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
[4354] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[4355] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[4356] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[4357] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[4358] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[4359] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[4360] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[4361] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[4362] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[4363] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[4364] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf
[4365] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[4366] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf

- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [4367] (416K)
- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [4368] (832K)
- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [4369] (2.3M)
- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [4370] (576K)
- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [4371] (9.5M)
- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [4372] (3.7M)
- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [4373] (1.1M)
- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [4374] (576K)
- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [4375] (832K)
- Nuclear reactions (Kiptily): pdf [4376] (1.2M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [4377] (352K)
- ITM AMNS Interface (Coster): pdf [4378] (288K)
- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [4379] (3.3M)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [4380] (320K)
- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [4381] (3.6M)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [4382] (1.2M)

[4367] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf
[4368] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[4369] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[4370] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[4371] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[4372] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[4373] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[4374] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[4375] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[4376] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[4377] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[4378] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[4379] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[4380] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[4381] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[4382] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf

- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [4383] (800K)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [4384] (15M)
- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [4385] (960K)
- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [4386] (480K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [4387] (672K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [4388] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [4389] (3.3M)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [4390] (288K)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [4391] (1.1M)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [4392] (192K)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [4393] (2.1M)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [4394] (1.2M)
- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [4395] (672K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [4396] (4.5M)
- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [4397] (6.1M)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [4398] (4.2M)
- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [4399] (4.5M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [4400] (1.4M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [4401] (3.3M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [4402] (2.2M)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [4403] (736K)

[4383] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[4384] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[4385] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[4386] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[4387] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[4388] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[4389] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[4390] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[4391] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
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[4394] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[4395] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[4396] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[4397] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[4398] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[4399] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[4400] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
[4401] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[4402] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[4403] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt

- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [4404] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [4405] (736K)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [4406] (768K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [4407] (96K)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [4408] (2.3M)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental Data Overview [4409] (320K)
- ISIP tools training (Imbeaux): Introduction: [4410] (416K)
- Integrated Tokamak Modelling TF (Strand): Par Strand's RUSA 2009 Presentation [4411] (5.1M)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [4412] (2.3M)
- Update on FIXFREE and CREATE-NL (Calabrò): ppt [4413] (1.4M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [4414] (12M)
- XML2EQ (YAXFI) (Giovannozzi): ppt [4415] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [4416] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [4417] (384K)
- ETS - Free Boundary Equilibrium (Coster): ppt [4418] (13M)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [4419] (5.5M)
- DINA-CH full tokamak simulator (Lister): pdf [4420] (1.3M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [4421] (800K)
- EQUAL in predictive mode (Zwingmann): ppt [4422] (320K)
- The European Transport Solver (Coster): Presentation at ICNSP-2009 on the ETS [4423] (25M)
- Plans for development and release of SOLPS-ITER (Bonnin): ppt [4424] (128K)

[4404] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[4405] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
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[4418] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/ETS-FBE.ppt
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[4423] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[4424] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx

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- SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet): ppt [4428] (8.6M)
- PARSOLPS (Feher): pdf [4429] (1.6M)
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- Presentation to ISM about the ETS (Coster): ppt [4431] (13M)
- The ITM general grid description: A tutorial (Klingshirn): pdf [4432] (1.3M)
- Agenda (Coster): pdf [4433] (32K)
- Introduction (Coster): ppt [4434] (2.9M)
- Talk given at the JET TF-T Meeting earlier in the year on the ETS (Coster): ppt [4435] (5.7M)
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- Accuracy tests (Pereverzev): pdf [4438] (64K)
- ETS benchmarking and verification: Intermediate report (ASTRA results) (Pereverzev): pdf [4439] (96K)
- Proposal for ETS verification and benchmarking procedure (Pereverzev): pdf [4440] (96K)
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- Exp2ITM : populate ITM database with experimental data (Signoret): ppt [4442] (1.6M)
- Introduction to ISE (Signoret): ppt [4443] (2.2M)
- Equilibrium Reconstruction with EQUAL (Zwingmann): ppt [4444] (1.7M)
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- ITER Integrated Modelling Expert Group - a brief overview (Strand): pdf [4446] (768K)
- EFDA Transport Topical Group: survey of research activities (Angioni): ppt [4447] (7.9M)

[4425] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf
[4426] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
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[4447] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt

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- Work plan and Resources for the ETS in 2009 (Coster): doc [4450] (128K)
- ITM gateway users's guid (Guillerminet): pdf [4451] (3.9M)
- Current status of the ETS (present at the JET TFT meeting) (Coster): pdf [4452] (768K)
- ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009) (Coster): pdf [4453] (4.8M)
- Closure of equilibriumtransport set / Data flow (Pereverzev): pdf [4454] (32K)
- ETS transport equations and list of variables (2008-08-01) (Coster): pdf [4455] (352K)
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- Data access for Fusion Simulation (EUFORIA): pdf [4457] (544K)
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[4448] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
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[4451] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
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[4461] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[4462] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
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[4466] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf

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- IMP5: Energetic Particles (Vlad): pdf [4469] (1.1M)
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- Ray-Tracing Code TRAVIS (Marushchenko): pdf [4473] (320K)
- IMP5 tools in 4.09a (Johnson): pdf [4474] (160K)
- Code Camp report (Goloborodko): pdf [4475] (384K)
- Integration of heating and fast particles models (Johnson): ppt [4476] (2.8M)
- IMP5 Summary (Farina): pdf [4477] (224K)
- IMP5: Energetic Particles (Vlad): ppt [4478] (2.4M)
- ARENA+ in ITM (Pokol): pdf [4479] (416K)
- TORBEAM for ITM (Poli): ppt [4480] (320K)
- Ray-Tracing Code TRAVIS (Marushchenko): ppt [4481] (320K)
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[4486] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf

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- Current ramp-up wrapup and publication (Imbeaux): ppt [4492] (1.1M)
- Welcome and agenda (Voitsekhovitch): pdf [4493] (1.9M)
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- Hybrid experiments for ISM modelling (Joffrin): ppt [4495] (2.0M)
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- JET DT fusion yield projections (Challis): ppt [4497] (6.5M)
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- JET high field/high current H-mode - extrapolation to DT operation (Voitsekhovitch): ppt [4499] (480K)
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- New simulations of ITER hybrid scenario (Garcia): ppt [4501] (352K)
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- JET current ramp down with METIS code (Artaud): ppt [4507] (480K)
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[4487] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
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[4502] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[4503] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
[4504] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[4505] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[4506] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
[4507] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Artaud_rampdown.ppt
[4508] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt

- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [4509] (480K)
- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [4510] (224K)
- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [4511] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [4512] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon): ppt [4513] (1.9M)
- Conclusion working session Culham (Litaudon): ppt [4514] (544K)
- Agenda (Litaudon): pdf [4515] (544K)
- Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives (Voitsekhovitch): ppt [4516] (896K)
- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling (Houlberg): ppt [4517] (320K)
- On core-SOL Integration in Scenario Modelling for ITER (Kukushkin): pdf [4518] (352K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): pdf [4519] (1.1M)
- Fully predictive modelling of L-H and H-L transition (Parail): ppt [4520] (2.8M)
- ETS (Coster): ppt [4521] (13M)
- Simulations of the H to L transition in JET plasmas (Belo): ppt [4522] (4.1M)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [4523] (192K)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [4524] (96K)
- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch): ppt [4525] (1.5M)
- JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi): ppt [4526] (6.8M)
- First CRONOS simulation of JT60-SA (Schneider): pdf [4527] (1.4M)
- LHCD in JT60_SA: a preliminary study (Barbato): pdf [4528] (288K)
- Next ISM working session: a word from the LOC (Hogeweij): pptx [4529] (12M)

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[4511] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[4512] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
[4513] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[4514] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[4515] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
[4516] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt
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[4521] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[4522] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[4523] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
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[4529] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx

- Status of edge modelling with EDGE2D for ITER Hybrid Scenaio (Harting): ppt [4530] (448K)
- SOUL1D benchmark using EDGE2D models and JET reference shots (Guillemaut): ppt [4531] (640K)
- Predictive modelling of H-L transition in JET (Parail): ppt [4532] (512K)
- Report on AUG modelling (Hobirk): ppt [4533] (768K)
- ETS validation (Basiuk): ppt [4534] (800K)
- Optimizing ITER current ramp-up for hybrid scenario (Hogeweij): ppt [4535] (224K)
- ITER hybrid density modelling: current status (Koechl): ppt [4536] (160K)
- Optimisation of operational space for long pulse scenarios (Polevoi): doc [4537] (64K)
- Optimisation of operational space for long pulse scenarios: xml table (Polevoi): xml [4538] (64K)
- Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi): doc [4539] (128K)
- First modelling of JT-60SA (Giruzzi): ppt [4540] (3.3M)
- Agenda (Litaudon): doc [4541] (128K)
- Introduction (Litaudon): ppt [4542] (928K)
- Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch): ppt [4543] (2.3M)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [4544] (2.3M)
- Update on hybrid scenario (Garcia): ppt [4545] (704K)
- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar): pdf [4546] (2.3M)
- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici): pdf [4547] (3.8M)
- Modeling development for control for ITER advanced scenarios (Casper): pdf [4548] (1.8M)
- Current ramp up in JET hybrid scenarios (Voitsekhovitch): pdf [4549] (1.3M)
- Introduction (Litaudon): pdf [4550] (384K)
- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch): pdf [4551] (672K)
- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [4552] (224K)
- Analysis of current diffusion on ASDEX-Upgrade (Garcia): ppt [4553] (512K)
- Optimisation of the current ramp up phase for hybrid ITER discharges (Hogeweij): ppt [4554] (512K)

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[4531] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
[4532] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Parail_PredictivemodellingofH-LtransitioninJET.ppt
[4533] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_AUG.ppt
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[4536] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[4537] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[4538] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[4539] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[4540] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[4541] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[4542] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[4543] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
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[4550] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
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[4552] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
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[4554] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt

- #77922: current ramp-down (Koechl): ppt [4555] (128K)
- Update on hybrid scenario (Garcia): ppt [4556] (736K)
- MHD stability analysis at ISM working session (Lonnroth): ppt [4557] (9.3M)
- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [4558] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [4559] (2.2M)
- Agenda (Litaudon): pdf [4560] (160K)
- Welcome (Voitsekhovitch): pdf [4561] (576K)
- Introduction (Litaudon): ppt [4562] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [4563] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [4564] (4.1M)
- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [4565] (864K)
- Introduction (Litaudon): ppt [4566] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [4567] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [4568] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [4569] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [4570] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [4571] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [4572] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [4573] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [4574] (2.8M)
- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [4575] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [4576] (192K)

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[4560] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[4561] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[4562] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[4563] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[4564] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[4565] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
[4566] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
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- Edge modelling resources - November 2011 (Groth): ppt [4577] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [4578] (2.2M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [4579] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [4580] (2.1M)
- Introduction (Litaudon): ppt [4581] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [4582] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [4583] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [4584] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [4585] (992K)
- L-H and H-L transition (Belo): ppt [4586] (704K)
- LHCD during JET current ramp up (Barbato): pdf [4587] (416K)
- Particle transport in JET and ITER HS (Garzotti): ppt [4588] (192K)
- Real time control (Liu): pptx [4589] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [4590] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [4591] (3.0M)
- Local information (Koechl): ppt [4592] (2.9M)
- Agenda (Litaudon): pdf [4593] (64K)
- Introduction (Litaudon): ppt [4594] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [4595] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [4596] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [4597] (1.9M)
- NCLASS benchmark (Basiuk): ppt [4598] (544K)
- Current diffusion in hybrid scenarios (Garcia): ppt [4599] (352K)
- Density simulation in JET HS (Garzotti): ppt [4600] (576K)

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[4581] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
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[4594] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
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[4596] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ITER_ramp_up_Hogeweij.ppt
[4597] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
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[4600] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt

- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [4601] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [4602] (416K)
- Free boundary equilibrium transport simulations of ITER scenarios under control (Urban): ppt [4603] (640K)
- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [4604] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [4605] (864K)
- Implementation of the JT-60SA NBI configuration in EU transport codes (Bolzonella): ppt [4606] (1.5M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): ppt [4607] (672K)
- Predictive simulations of JT60-SA (Garzotti): ppt [4608] (1.0M)
- Welcome and local information (Voitsekhovitch): ppt [4609] (352K)
- Agenda (Litaudon): ppt [4610] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [4611] (576K)
- Pulses for analysis with the ILW (Joffrin): ppt [4612] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [4613] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [4614] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [4615] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [4616] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [4617] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [4618] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [4619] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [4620] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [4621] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [4622] (288K)
- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [4623] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [4624] (320K)

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[4603] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/freebie_iter_may2012_ism.pdf
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[4607] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[4608] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
[4609] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[4610] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[4611] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
[4612] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
[4613] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[4614] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Parail.ppt
[4615] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[4616] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[4617] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[4618] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx
[4619] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
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[4621] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[4622] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[4623] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[4624] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt

- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [4625] (2.6M)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [4626] (1.7M)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [4627] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [4628] (416K)
- H-L transition with ITER like wall (Belo): ppt [4629] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [4630] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [4631] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [4632] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [4633] (832K)
- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [4634] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [4635] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [4636] (480K)
- Conclusions, information (Litaudon): ppt [4637] (640K)
- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [4638] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [4639] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [4640] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [4641] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [4642] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [4643] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [4644] (544K)
- European Transport Solver Status (Basiuk): ppt [4645] (608K)
- Code camp report (Figueiredo): pdf [4646] (288K)
- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [4647] (22M)

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[4626] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Nave_ETS_Benchmarking.ppt
[4627] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Hogeweij_ISM_23Nov2012_ITERlike_RURD_qprofile_Analysis.ppt
[4628] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
[4629] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ILW_paula.ppt
[4630] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_Meeting_Bizarro.ppt
[4631] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Barbato_ISM_WG_22Nov12.pptx
[4632] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/baiocchi.pdf
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[4635] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[4636] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[4637] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
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[4642] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
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[4644] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/NTM_CC_Garching_March_2013.ppt
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[4646] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[4647] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt

- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [4648] (2.9M)
- Linear Stability Chain in the new gateway (Nabais): ppt [4649] (4.6M)
- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [4650] (736K)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [4651] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [4652] (288K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [4653] (192K)
- Activity within ISM (Barbato): pptx [4654] (320K)
- Closing of working session (Voitsekhovitch): pdf [4655] (224K)
- Agenda and working groups (Voitsekhovitch): pdf [4656] (256K)
- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [4657] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [4658] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [4659] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [4660] (288K)
- Agenda (Voitsekhovitch): pdf [4661] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [4662] (3.5M)
- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [4663] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [4664] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [4665] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [4666] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [4667] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [4668] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [4669] (2.4M)
- Agenda (Voitsekhovitch): pdf [4670] (96K)

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[4655] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_Garcia_ISMWS1_closing.pdf
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[4658] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
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- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [4671] (640K)
- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [4672] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [4673] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [4674] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [4675] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [4676] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [4677] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [4678] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [4679] (96K)
- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [4680] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [4681] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [4682] (1.1M)
- Agenda (Voitsekhovitch): ppt [4683] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [4684] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [4685] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [4686] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [4687] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [4688] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [4689] (2.5M)
- Introduction meeting 29 September (Litaudon): pdf [4690] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [4691] (320K)
- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [4692] (288K)

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[4689] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[4690] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Litaudon_introduction.pdf
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- Introduction meeting 27 October (Litaudon): pdf [4693] (224K)
- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [4694] (1.2M)
- Optimization of the EC Launchers (Henderson): pdf [4695] (3.2M)
- Introduction meeting 10 November (Litaudon): pdf [4696] (224K)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [4697] (1.5M)
- Introduction meeting 24 November (Litaudon): pdf [4698] (224K)
- Introduction meeting 19 January 2011 (Litaudon): pdf [4699] (608K)
- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [4700] (160K)
- Optimisation of operational phase for long-pulse scenarios (Polevoi): pdf [4701] (160K)
- Introduction meeting 9 February 2011 (Litaudon): pdf [4702] (544K)
- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [4703] (320K)
- Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch): pdf [4704] (160K)
- Introduction meeting 16 February 2011 (Litaudon): pdf [4705] (192K)
- Benchmark the ETS/impurity code against SANCO (Belo): pdf [4706] (544K)
- EMC3-EIRENE 3D fluid SOL code package (Harting): pdf [4707] (256K)
- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [4708] (128K)
- Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon): ppt [4709] (1.4M)
- Introduction meeting 6 April 2011 (Litaudon): ppt [4710] (896K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results (Garzotti): pdf [4711] (384K)
- Validation exercise of the Kepler Workflow (Basiuk): pdf [4712] (64K)
- Summary report on ISM WS & ETS CC: ETS benchmarking (Voitsekhovitch): pdf [4713] (256K)
- Introduction meeting 27 April 2011 (Litaudon): pdf [4714] (1.6M)
- IOS/ITPA activities (Litaudon): ppt [4715] (32K)

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[4716] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf
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[4761] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
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[4800] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt

- PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS (Garcia): ppt [4801] (35M)
- Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch): ppt [4802] (768K)
- ISM news and coming events (Voitsekhovitch): ppt [4803] (672K)
- ITPA summary (Garcia): ppt [4804] (5.3M)
- EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch): ppt [4805] (1.4M)
- ITER Integrated Modelling Programme (Pinches): ppt [4806] (28M)
- ITM-TF Status and Achievements (Falchetto): ppt [4807] (4.8M)
- AMNS + IMP3 (Coster): ppt [4808] (5.9M)
- Overview of EDRG results (Coelho): ppt [4809] (3.5M)
- ISIP 2013 overview (Imbeaux): ppt [4810] (2.2M)
- IMP12 at the end of 2013 (Yadikin): ppt [4811] (7.8M)
- ITM-IMP4 Status & Achievements (Nielsen): ppt [4812] (2.1M)
- IMP5 2013 overview (Farina): ppt [4813] (5.2M)
- INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013 (Voitsekhovitch): pdf [4814] (1.0M)
- Euro-Fusion Code Development for Integrated Modelling Work Package (Falchetto): pdf [4815] (608K)
- ITM Workflows (Coster): ppt [4816] (7.9M)
- Overview of the OMFIT framework (Meneghini): pdf [4817] (17M)
- Tightly-coupled workflows using MUSCLE2 (Hoenen): pdf [4818] (480K)
- The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations (Batchelor): pdf [4819] (5.0M)
- Demo on ETS workflow capabilities (Kalupin): ppt [4820] (6.1M)
- ITM scenarios using IPS (Petruczynik): ppt [4821] (1.8M)
- ITM-TF Status and 2013 WorkPlan (Falchetto): ppt [4822] (3.3M)

[4801] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[4802] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[4803] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[4804] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
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[4806] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[4807] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[4808] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[4809] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[4810] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[4811] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[4812] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[4813] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
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[4816] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
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[4820] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
[4821] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[4822] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt

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- Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho): ppt [4825] (14M)
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- IMP3 (Coster): ppt [4842] (5.5M)
- Present status of the General Grid Description and related software (IMP3) (Klingshirn): ppt [4843] (3.5M)
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[4823] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[4824] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[4825] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[4826] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[4827] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[4828] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[4829] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[4830] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[4831] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
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[4833] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[4834] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[4835] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[4836] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[4837] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[4838] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[4839] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[4840] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[4841] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[4842] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[4843] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[4844] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[4845] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[4846] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt

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- Tour de Project: Proto-FSP CPES (Chang): pdf [4864] (576K)
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[4847] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[4848] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[4849] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[4850] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[4851] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[4852] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[4853] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[4854] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
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[4856] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
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[4859] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[4860] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[4861] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
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[4869] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[4870] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[4871] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf

- Storing Data on a Grid / AMNS (Coster): ppt [4872] (4.1M)
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- Distributed Resources in Kepler (Plociennik): ppt [4876] (1.7M)
- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [4877] (2.2M)
- IMP12 Kepler Workflows (Konz): pdf [4878] (1.3M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [4879] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [4880] (3.5M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [4881] (17M)
- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [4882] (896K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [4883] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [4884] (480K)
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- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [4893] (1.5M)

[4872] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[4873] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[4874] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
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- JRA3: workflows (Bernard) (Guillerminet): pdf [4896] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [4897] (704K)
- MHD workflows (Christian) (Konz): pdf [4898] (352K)
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- Exploitation and sustainability - (Par, David) (Coster): pdf [4900] (160K)

26.5.8 report

- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [4901] (224K)
- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [4902] (352K)
- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [4903] (32K)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [4904] (64K)
- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [4905] (192K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [4906] (96K)
- Minutes of the ITM meeting on the implementation of controllers within the ITM simulation platform (Konz): Minutes ofthe meeting on control in March 2010 [4907] (96K)
- DINA-CH and CRONOS: Full tokamak discharge simulator (Kim): pdf [4908] (896K)
- Core-Edge Transport Coupling Via Manual Intervention (Coster and Klingshirn): this document [4909] (15M)
- The Universal Access Layer User Guide (2009-03-03) (Manduchi): pdf [4910] (288K)
- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [4911] (384K)
- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [4912] (192K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [4913] (192K)

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[4895] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
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[4897] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[4898] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[4899] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[4900] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[4901] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[4902] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[4903] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[4904] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[4905] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[4906] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[4907] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf
[4908] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_and_CRONOS_working_scheme_and_equations-Kim.pdf
[4909] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf
[4910] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
[4911] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/
[4912] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
[4913] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx

26.5.9 technical

- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [4914] (352K)
- Machine Description User Guide. (Imbeaux): User Guide [4915] (1.2M)
- New angles for the line integrated signals. (Coelho): report [4916] (128K)
- Definition of flux loops in EU-ITM datastructure (Coelho): Flux loop position [4917] (576K)
- PF connections (Coelho): PFconnections [4918] (64K)
- Langmuir CPO (Coelho): Langmuir probes [4919] (576K)
- Fusion CPO (Coelho): Fusion CPO [4920] (256K)
- Data Mapping User Guide (Signoret): User Guide [4921] (1.4M)
- Basics on exp2ITM usage. (Signoret): presentation [4922] (2.3M)
- Contents of the ITM public database (Imbeaux): ITM PublicDatabase [4923] (32K)
- The universal access layer user guide (Manduchi): UAL User Guide [4924] (448K)
- DINA-CH workflow (Besseghir): pdf [4925] (32K)
- Introduction ETS training 2011 (Huynh): Introduction training 2011, [4926] (512K)
- ETS_C training 2011 (Huynh): training 2011 [4927] (1.2M)
- Running ETS in KEPLER (Kalupin): User Guide [4928] (7.0M)
- Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand): Validation Procedure (Draft) [4929] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix) (Strand): Validation Procedure (Appendix) [4930] (288K)

26.5.10 tutorial

- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [4931] (1.6M)
- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [4932] (1.5M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [4933] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [4934] (6.3M)

[4914] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[4915] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[4916] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Convention_angles_interfdiag.pdf
[4917] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FLUXLOOPposition.pdf
[4918] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[4919] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_LangmuirCPO.pdf
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[4921] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
[4922] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[4923] https://www.efda-itm.eu/ITM/imports/isip/public/isip_PublicContent.pdf
[4924] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_User_Guide.pdf
[4925] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
[4926] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
[4927] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf
[4928] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[4929] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
[4930] https://www.efda-itm.eu/ITM/imports/itm/public/validation_procedure_appendix.pdf
[4931] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[4932] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[4933] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[4934] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf

- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [4935] (320K)
- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [4936] (2.6M)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [4937] (3.1M)
- ITM datastructure and tools (Coelho): ITM datastructure and tools (R. Coelho) [4938] (4.3M)
- Code integration in IMP12 (Konz): Code integration in IMP12 (C. Konz) [4939] (6.1M)
- Data structures in practice (Imbeaux): Data Structures inPractice [4940] (1.0M)
- ITM gateway user's guide (Guillerminet): Gateway User'sGuide: [4941] (3.9M)
- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [4942] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [4943] (6.0M)
- UAL Tutorial (Imbeaux): UAL tutorial [4944] (32K)
- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [4945] (480K)
- Exercises (Imbeaux): Exercises: [4946] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [4947] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [4948] (864K)
- Using XML for code specific parameters (Konz): Fortran XML Parser: [4949] (768K)
- IMP5 CPOs (Johnson): pdf [4950] (2.5M)
- Quick introduction to documentation with Doxygen (Johnson): pdf [4951] (2.9M)
- IMP5: ITM tools a quick start (Johnson): pdf [4952] (1.8M)
- Training: The IMP5HCD workflow (Johnson): pdf [4953] (3.5M)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

[4935]https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/SimulinkActorGeneration.ppt
[4936]https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt
[4937]https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[4938]https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[4939]https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[4940]https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[4941]https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITM_gateway_users_guide_v3-1.pdf
[4942]https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[4943]https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[4944]https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_TUTORIAL.pdf
[4945]https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf
[4946]https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[4947]https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[4948]https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[4949]https://www.efda-itm.eu/ITM/imports/isip/public/isip_FortranXMLParser.pdf
[4950]https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[4951]https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[4952]https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf
[4953]https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf

26.6 Documents (sorted by project)

26.6.1 AMNS

- Coordination and Provision of AMNS data (Coster): ppt [4954] (1.5M)
- AMNS (Coster): ppt [4955] (4.3M)

26.6.2 AMNS, IMP3

- AMNS + IMP3 (Coster): ppt [4956] (5.9M)

26.6.3 EDRG

- Overview of EDRG results (Coelho): ppt [4957] (3.5M)
- Overview of Experimentalist and Diagnostician Resource Group (EDRG) (Coelho): ppt [4958] (14M)
- EDRG (Coelho): ppt [4959] (8.6M)

26.6.4 Genral Atomics

- Overview of the OMFIT framework (Meneghini): pdf [4960] (17M)

26.6.5 HLST

- ITM scenarios using IPS (Petruczynik): ppt [4961] (1.8M)

26.6.6 IMP12

- IMP12 at the end of 2013 (Yadikin): ppt [4962] (7.8M)
- Equilibrium, MHD, and Disruptions (Giovannozzi): ppt [4963] (2.6M)
- Equilibrium and MHD stability chain (IMP12) (Zwingmann): ppt [4964] (2.6M)

26.6.7 IMP3

- Demo on ETS workflow capabilities (Kalupin): ppt [4965] (6.1M)
- IMP3: Transport Code and Discharge Evolution (Coster): ppt [4966] (4.1M)
- IMP3 (Coster): ppt [4967] (5.5M)
- Present status of the General Grid Description and related software (IMP3) (Klingshirn): ppt [4968] (3.5M)
- The ITM General Grid Description (Klingshirn): ppt [4969] (2.7M)

[4954] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[4955] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[4956] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[4957] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[4958] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[4959] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[4960] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
[4961] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[4962] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[4963] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[4964] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[4965] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/ETS_status_Kalupin.ppt
[4966] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[4967] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[4968] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[4969] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt

26.6.8 IMP4

- ITM-IMP4 Status & Achievements (Nielsen): ppt [4970] (2.1M)
- IMP4 (Scott): pdf [4971] (352K)
- IMP4 (Scott): pdf [4972] (288K)

26.6.9 IMP5

- IMP5 2013 overview (Farina): ppt [4973] (5.2M)
- IMP5 2012 overview (Farina): ppt [4974] (9.0M)
- IMP5: Energetic Particles (Vlad): pdf [4975] (7.4M)
- Integration of heating and fast particles models and composite actor for the ETS (IMP5) (Jonsson): ppt [4976] (2.8M)

26.6.10 IMT

- Agenda (IMT): *Agenda* [4977] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [4978] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [4979] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [4980] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [4981] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [4982] (1.8M)
- SOAF Framework (Hayashi): *[PDF]* [4983] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [4984] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [4985] (4.1M)
- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [4986] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [4987] (7.2M)

[4970] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[4971] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[4972] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[4973] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
[4974] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[4975] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[4976] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[4977] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[4978] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[4979] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[4980] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[4981] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[4982] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[4983] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[4984] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[4985] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[4986] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[4987] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf

- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [4988] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [4989] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [4990] (1.2M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [4991] (992K)
- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [4992] (576K)
- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [4993] (544K)
- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [4994] (6.7M)
- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [4995] (3.1M)
- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [4996] (896K)
- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [4997] (3.1M)
- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [4998] (4.8M)
- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [4999] (4.1M)
- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [5000] (192K)
- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [5001] (416K)

[4988] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt

[4989] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt

[4990] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt

[4991] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt

[4992] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf

[4993] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf

[4994] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt

[4995] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt

[4996] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt

[4997] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx

[4998] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf

[4999] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt

[5000] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf

[5001] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf

- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [5002] (832K)

- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [5003] (2.3M)

- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [5004] (576K)

- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [5005] (9.5M)

- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [5006] (3.7M)

- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [5007] (1.1M)

- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [5008] (576K)

- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [5009] (832K)

26.6.11 ISIP

- ISIP 2013 overview (Imbeaux): ppt [5010] (2.2M)
- ISIP 2012 overview (Imbeaux): ppt [5011] (1.9M)
- ISIP (Manduchi): ppt [5012] (1.4M)
- Cross project session on Control (Bolzonella): ppt [5013] (2.6M)

26.6.12 ISM

- INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013 (Voitsekhovitch): pdf [5014] (1.0M)

- INTEGRATED SCENARIO MODELLING (summary of ISM group activities for 2012) (Litaudon): ppt [5015] (4.1M)

[5002] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[5003] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[5004] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[5005] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[5006] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[5007] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[5008] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[5009] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[5010] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[5011] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[5012] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[5013] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[5014] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
[5015] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt

26.6.13 ITER

- ITER Integrated Modelling Programme (Pinches): ppt [5016] (28M)
- Integrated Modelling for ITER (Pinches): ppt [5017] (8.3M)
- ITER IO Strategy on IM (Houlberg): pdf [5018] (224K)

26.6.14 ITM

- ITM-TF Status and Achievements (Falchetto): ppt [5019] (4.8M)
- Euro-Fusion Code Development for Integrated Modelling Work Package (Falchetto): pdf [5020] (608K)
- ITM Workflows (Coster): ppt [5021] (7.9M)
- ITM-TF Status and 2013 WorkPlan (Falchetto): ppt [5022] (3.3M)
- Workflows (Coster): ppt [5023] (8.0M)
- Opening (Falchetto): ppt [5024] (224K)
- ITM Overview (Falchetto): ppt [5025] (2.4M)
- Present ITM capabilities (Coster): ppt [5026] (3.0M)
- Visualization Tools in the ITM (Coster): ppt [5027] (32K)

26.6.15 MAPPER

- Tightly-coupled workflows using MUSCLE2 (Hoenen): pdf [5028] (480K)

26.6.16 ORNL

- The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations (Batchelor): pdf [5029] (5.0M)

26.6.17 amns

- AMNS (ITM): *AMNS* [5030] (2.1M)
- Nuclear reactions (Kiptily): pdf [5031] (1.2M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [5032] (352K)
- ITM AMNS Interface (Coster): pdf [5033] (288K)
- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [5034] (128K)

[5016] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[5017] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[5018] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[5019] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[5020] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
[5021] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
[5022] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[5023] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[5024] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[5025] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[5026] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[5027] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[5028] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/muscle2-lisbon2013.pdf
[5029] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
[5030] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[5031] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[5032] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[5033] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[5034] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf

- AMNS work (Eriksson): ppt [5035] (160K)
- Overview of AMNS activities during 2010 (Eriksson): ppt [5036] (1.8M)

26.6.18 edrg

- EDRG (ITM): *EDRG* [5037] (9.3M)
- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [5038] (3.3M)
- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [5039] (224K)
- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [5040] (352K)
- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [5041] (3.6M)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [5042] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [5043] (800K)
- 3D Machine Description of Fusion Devices (Lunt): pdf [5044] (4.1M)
- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [5045] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [5046] (3.5M)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [5047] (64K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [5048] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [5049] (3.3M)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [5050] (288K)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [5051] (192K)
- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [5052] (192K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [5053] (4.5M)

[5035] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
[5036] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[5037] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[5038] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[5039] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[5040] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[5041] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[5042] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[5043] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[5044] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[5045] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[5046] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[5047] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[5048] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[5049] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[5050] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[5051] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[5052] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[5053] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt

- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [5054] (6.1M)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [5055] (4.2M)
- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [5056] (4.5M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [5057] (3.3M)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [5058] (2.3M)
- ITM datastructure and tools (Coelho): ITM datastructure and tools (R. Coelho) [5059] (4.3M)
- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [5060] (352K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [5061] (96K)
- Call for participation - 2009 Work programme (Coelho): Call for Participation [5062] (1.7M)
- Annual Report 2009 (Coelho): Annual Reporting [5063] (256K)
- Call for participation - 2010 Work programme (Coelho): Call for Participation [5064] (224K)
- Annual Report 2010 (Coelho): Annual Reporting [5065] (4.4M)
- Machine Description User Guide. (Imbeaux): User Guide [5066] (1.2M)
- New angles for the line integrated signals. (Coelho): report [5067] (128K)
- Definition of flux loops in EU-ITM datastructure (Coelho): Flux loop position [5068] (576K)
- PF connections (Coelho): PFconnections [5069] (64K)
- Langmuir CPO (Coelho): Langmuir probes [5070] (576K)
- Fusion CPO (Coelho): Fusion CPO [5071] (256K)
- Data Mapping User Guide (Signoret): User Guide [5072] (1.4M)
- Basics on exp2ITM usage. (Signoret): presentation [5073] (2.3M)
- Overview of EDRG activities during 2010 (Coelho): ppt [5074] (18M)

[5054] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[5055] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[5056] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[5057] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[5058] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[5059] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[5060] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[5061] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[5062] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[5063] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[5064] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf
[5065] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf
[5066] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[5067] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Convention_angles_interfdiag.pdf
[5068] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FLUXLOOPposition.pdf
[5069] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[5070] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_LangmuirCPO.pdf
[5071] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FusionCPO.pdf
[5072] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
[5073] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Basics_on_exp2ITM_v2.pdf
[5074] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt

26.6.19 euforia

- EUFORIA (EUFORIA): *EUFORIA* [5075] (5.3M)
- EUFORIA Vision (EUFORIA): pdf [5076] (32K)
- Data access for Fusion Simulation (EUFORIA): pdf [5077] (544K)
- EUFORIA - Brief Overview (Strand): pdf [5078] (1.2M)
- LSDF - Large Scale Data Facility at KIT (Hardt): pdf [5079] (2.1M)
- Distributed Resources in Kepler (Plociennik): ppt [5080] (1.7M)
- Agenda (Strand): pdf [5081] (64K)
- Introduction Impact of EUFORIA (Pr, David) (Strand): pdf [5082] (2.2M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [5083] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [5084] (544K)
- NA2: Training (Adrian) (Jackson): pdf [5085] (96K)
- NA3: Dissemination (Miguel) (Cardenas): pdf [5086] (2.3M)
- SA1: Grid (Marcus) (Hardt): pdf [5087] (1.7M)
- SA2: HPC (Adrian) (Jackson): pdf [5088] (64K)
- SA3: User support (Adrian) (Jackson): pdf [5089] (64K)
- Cloud pilot: Cloud demo (Marcin) (Plociennik): pdf [5090] (192K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [5091] (35M)
- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [5092] (1.5M)
- JRA2 Code adaptation for HPC (Adrian) (Jackson): pdf [5093] (160K)
- Demonstration/Discussion (Antonio, David T) (Tskhakaya): pdf [5094] (896K)
- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [5095] (19M)
- JRA3: workflows (Bernard) (Guillerminet): pdf [5096] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [5097] (704K)

[5075] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[5076] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/
[5077] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EUFORIA_Data_access.ppt
[5078] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[5079] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[5080] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[5081] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[5082] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[5083] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[5084] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[5085] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[5086] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[5087] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA1.pdf
[5088] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
[5089] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA3.pdf
[5090] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[5091] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[5092] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[5093] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[5094] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
[5095] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[5096] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[5097] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf

- MHD workflows (Christian) (Konz): pdf [5098] (352K)
- MHD workflows (Christian), movie (Konz): movie [5099] (22M)
- Mixed grid HPC Workflow (Antonio) (Gomez): pdf [5100] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [5101] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [5102] (33M)
- Exploitation and sustainability - (Par, David) (Coster): pdf [5103] (160K)

26.6.20 external

- DINA-CH workflow (Besseghir): pdf [5104] (32K)
- DINA-CH and CRONOS: Full tokamak discharge simulator (Kim): pdf [5105] (896K)
- EFDA Transport Topical Group: survey of research activities (Angioni): ppt [5106] (7.9M)
- Center for Simulations of Wave Interactions with MHD (SWIM) (Batchelor): pdf [5107] (1.2M)
- A Brief Introduction to FACETS (Epperly): pdf [5108] (608K)
- Tour de Project: Proto-FSP CPES (Chang): pdf [5109] (576K)
- Center for Extended MHD Modeling (CEMM) (Jardin): pdf [5110] (36M)
- Fusion Simulation Program (FSP) (Tang): pdf [5111] (1.9M)
- ITER Needs and Requirements (Houlberg): ppt [5112] (4.5M)
- ITER PF Validation (Houlberg): wmv [5113] (12M)
- Detailed Overview of the Plasma State Software (McCune): pdf [5114] (192K)
- ADIOS 1.2 (Klasky): pdf [5115] (3.1M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [5116] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [5117] (3.5M)
- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [5118] (896K)

[5098] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[5099] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[5100] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[5101] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[5102] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[5103] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[5104] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
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[5109] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[5110] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
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[5112] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
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[5115] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[5116] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[5117] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[5118] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf

- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [5119] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [5120] (480K)

26.6.21 imp12

- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [5121] (2.9M)
- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [5122] (960K)
- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [5123] (32K)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [5124] (1.1M)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [5125] (2.1M)
- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [5126] (672K)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [5127] (736K)
- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [5128] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [5129] (736K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [5130] (96K)
- Code integration in IMP12 (Konz): Code integration in IMP12 (C. Konz) [5131] (6.1M)
- Using XML for code specific parameters (Konz): Fortran XML Parser: [5132] (768K)
- Minutes of the ITM meeting on the implementation of controllers within the ITM simulation platform (Konz): Minutes ofthe meeting on control in March 2010 [5133] (96K)
- Control Gantt Chart (Konz): Gantt Chart [5134] (32K)
- Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows (Calabrò): pdf [5135] (608K)
- The New ITM Website (Konz): pdf [5136] (1.5M)
- Sawteeth and Neoclassical Tearing Modes Workflows (Sauter): ppt [5137] (832K)
- Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System (Zwingmann): pdf [5138] (1.8M)

[5119] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[5120] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf
[5121] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[5122] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[5123] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[5124] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[5125] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[5126] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[5127] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[5128] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[5129] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
[5130] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[5131] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
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[5133] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf
[5134] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf
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[5136] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
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[5138] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf

- Free Boundary Equilibrium Code CEDRES++ (Blum): pdf [5139] (608K)
- Status of MARS-F and CarMa codes on ITM (Yadykin): ppt [5140] (1.1M)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [5141] (2.3M)
- Update on FIXFREE and CREATE-NL (Calabrò): ppt [5142] (1.4M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [5143] (12M)
- XML2EQ (YAXFI) (Giovannozzi): ppt [5144] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [5145] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [5146] (384K)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [5147] (5.5M)
- DINA-CH full tokamak simulator (Lister): pdf [5148] (1.3M)
- Movie: DINA plasma boundary (Lister): mpg [5149] (1.1M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [5150] (800K)
- Movie: CEDRES++ isoflux (Blum): mpg [5151] (5.4M)
- EQUAL in predictive mode (Zwingmann): ppt [5152] (320K)
- Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz): pdf [5153] (96K)
- Equilibrium Reconstruction with EQUAL (Zwingmann): ppt [5154] (1.7M)
- Overview of IMP12 activities during 2010 (Ottaviani): pps [5155] (4.6M)
- Code Specific Parameters (Konz): pdf [5156] (832K)
- IMP12 Kepler Workflows (Konz): pdf [5157] (1.3M)

[5139] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[5140] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[5141] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[5142] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[5143] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[5144] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[5145] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[5146] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Zwingmann_fife-fitting_gs04.ppt
[5147] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
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[5156] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[5157] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf

26.6.22 imp3

- IMP3 Core (ITM): *IMP3 Core* [5158] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [5159] (3.6M)
- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [5160] (480K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [5161] (672K)
- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [5162] (1.5M)
- ETS - Free Boundary Equilibrium (Coster): ppt [5163] (13M)
- Movie: Psi evolution (shot 5 run 42) (Coster): mpg [5164] (32M)
- Movie: Ne/Te/q evolution (shot 5 run 42) (Coster): mpg [5165] (30M)
- User Guide for the ETS (Coster): ETS User Guide [5166] (3.3M)
- Introduction ETS training 2011 (Huynh): Introduction training 2011, [5167] (512K)
- ETS_C training 2011 (Huynh): training 2011 [5168] (1.2M)
- ETS transport equations and list of variables (Kalupin): Description of the ETS [5169] (352K)
- Standardized equations (unknown): Form of the standardizeequations [5170] (128K)
- Current ETS timeline (Gantt chart) (Coster): (PDF) [5171] (32K)
- Current ETS timeline (Gantt chart) (Coster): (MS Project) [5172] (256K)
- ETS: European Transport Solver - Current Status (Coster): ETS Status [5173] (19M)
- ETS Doxyfile (Coster): (PDF) [5174] (84M)
- The European Transport Solver (Coster): Presentation at ICNSP-2009 on the ETS [5175] (25M)
- Core-Edge Transport Coupling Via Manual Intervention (Coster and Klingshirn): this document [5176] (15M)
- Plans for development and release of SOLPS-ITER (Bonnin): ppt [5177] (128K)
- Comparison of different iterative schemes in B2 for full-scale ITER cases. (Task WPCD-SOLPS-OPT) (Kotov): pdf [5178] (608K)
- Convergence and accuracy of coupled FV/MC codes (Baelmans): ppt [5179] (3.8M)
- On the modeling of drift fluxes with self-consistent electric field in the SOLPS code (Maj): pdf [5180] (3.7M)

[5158] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[5159] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[5160] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[5161] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
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[5177] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[5178] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf
[5179] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[5180] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf

- SoledGE2D-EIRENE Contributions to SOLPS OPTIMIZATION (Marandet): ppt [5181] (8.6M)
- PARSOLPS (Feher): pdf [5182] (1.6M)
- Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor (Coster): ppt [5183] (62M)
- Presentation to ISM about the ETS (Coster): ppt [5184] (13M)
- The ITM general grid description: A tutorial (Klingshirn): pdf [5185] (1.3M)
- Status of Edge Codes on the Gateway (Subba): ppt [5186] (2.2M)
- Status of grids in CPOS + edge CPOS (Subba): ppt [5187] (1.2M)
- European Transport Workflows - first results, validation and benchmark (Basiuk): pdf [5188] (800K)
- European Transport Solver (Coster): pdf [5189] (5.3M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [5190] (3.7M)
- Full tokamak simulation global workflow case study (Lister): pdf [5191] (64K)
- Agenda (Coster): pdf [5192] (32K)
- Introduction (Coster): ppt [5193] (2.9M)
- Talk given at the JET TF-T Meeting earlier in the year on the ETS (Coster): ppt [5194] (5.7M)
- ETS Status and Standards (reduced) (Coster): ppt [5195] (864K)
- ETS Numerics Quality Assessment / Verification (Pereverzev): pdf [5196] (96K)
- Accuracy tests (Pereverzev): pdf [5197] (64K)
- ETS benchmarking and verification: Intermediate report (ASTRA results) (Pereverzev): pdf [5198] (96K)
- Proposal for ETS verification and benchmarking procedure (Pereverzev): pdf [5199] (96K)
- ETS Status and Standards (v1) (Coster): pdf [5200] (2.1M)
- Requests to other projects (Coster): doc [5201] (64K)
- Work plan and Resources for the ETS in 2009 (Coster): doc [5202] (128K)
- ITM gateway users's guid (Guillerminet): pdf [5203] (3.9M)

[5181] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
[5182] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/tfeher_solps_WPCD.pdf
[5183] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[5184] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[5185] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
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[5187] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[5188] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[5189] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[5190] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf
[5191] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Fulltokamaksimulationworkflowcasestudy-poster.pdf
[5192] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Agenda.pdf
[5193] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/2010-03_WS-CC_ETS_v1.ppt
[5194] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[5195] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
[5196] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/CodeCampPereverzev.pdf
[5197] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/AccuracyAssessment.pdf
[5198] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/BenchmarkAstra.pdf
[5199] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/V_and_V/VandB-1st.pdf
[5200] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[5201] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[5202] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Work_plan_and_Resources_for_the_ETS_in_2009_v3.doc
[5203] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf

- Current status of the ETS (present at the JET TFT meeting) (Coster): pdf [5204] (768K)
- ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009) (Coster): pdf [5205] (4.8M)
- Closure of equilibriumtransport set / Data flow (Pereverzev): pdf [5206] (32K)
- ETS transport equations and list of variables (2008-08-01) (Coster): pdf [5207] (352K)
- IMP3 2009 Kick-Off (Coster): pdf [5208] (640K)
- Collaboration Issue: Standards (Coster): pdf [5209] (576K)
- ETS Road Map (2009) (Coster): doc [5210] (32K)
- Running ETS in KEPLER (Kalupin): User Guide [5211] (7.0M)
- Overview of IMP3 activities during 2010 (Coster): ppt [5212] (8.6M)
- Storing Data on a Grid / AMNS (Coster): ppt [5213] (4.1M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [5214] (17M)
- evolving equilibrium (Coster): movie1 [5215] (32M)
- evolving plasma (Coster): movie2 [5216] (33M)

26.6.23 imp4

- IMP4 (ITM): *IMP4* [5217] (2.1M)
- The IMP4 wrapper for running IMP4 codes in UAL framework (Reiser): pdf [5218] (224K)
- Overview of IMP4 activities during 2010 (Scott): pdf [5219] (224K)

26.6.24 imp5

- IMP5-I (ITM): *IMP5-I* [5220] (5.6M)
- IMP5-II (ITM): *IMP5-II* [5221] (16M)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [5222] (15M)
- IMP5 CPOs (Johnson): pdf [5223] (2.5M)
- GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini): pdf [5224] (2.3M)

[5204] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/2009_JET_TFT_ETS.pdf
[5205] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[5206] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EqTrInterface.pdf
[5207] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_TRANSPORT_EQUATIONS.pdf
[5208] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[5209] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[5210] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc
[5211] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[5212] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[5213] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[5214] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[5215] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[5216] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[5217] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[5218] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[5219] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[5220] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[5221] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[5222] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[5223] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[5224] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf

- Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof): pdf [5225] (128K)
- Neutral Beam Injection in ITM (Schneider): pdf [5226] (480K)
- Modelling NBI in ITM environment with ASCOT (Asunta): pdf [5227] (480K)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [5228] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [5229] (192K)
- Fast Particles activities during WP10 (Vlad): pdf [5230] (4.0M)
- Numerical codes for electron cyclotron heating and current drive (Bertelli): pdf [5231] (288K)
- TORBEAM: Physical Model (Bertelli): pdf [5232] (288K)
- Full-wave modelling of electromagnetic wave propagation with the code FWTOR (Tsironis): pdf [5233] (992K)
- Fast ICRH code for routine analysis (Hellsten): pdf [5234] (736K)
- Present status of NBI codes for ITM (Schneider): pdf [5235] (480K)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [5236] (12M)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [5237] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [5238] (128K)
- IMP5: Energetic Particles (Vlad): pdf [5239] (1.1M)
- Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles (Vlad): pdf [5240] (2.1M)
- Quick introduction to documentation with Doxygen (Johnson): pdf [5241] (2.9M)
- IMP5: ITM tools a quick start (Johnson): pdf [5242] (1.8M)

[5225] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[5226] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[5227] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[5228] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.pdf
[5229] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf
[5230] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[5231] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[5232] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
[5233] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[5234] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.pdf
[5235] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[5236] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_ITM-IMP5-GM2010.pdf
[5237] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.pdf
[5238] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Steinbrecher_ITM-GM2010.pdf
[5239] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_Energetic_Particles_ITM_GM2010.pdf
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[5241] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[5242] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf

- Analysis of Runaway Electrons by Numerical Algorithms (Csepany): pdf [5243] (64K)
- GRAY code status (Figini): pdf [5244] (288K)
- Ray-Tracing Code TRAVIS (Marushchenko): pdf [5245] (320K)
- IMP5 tools in 4.09a (Johnson): pdf [5246] (160K)
- Code Camp report (Goloborodko): pdf [5247] (384K)
- Integration of heating and fast particles models (Johnson): ppt [5248] (2.8M)
- IMP5 Summary (Farina): pdf [5249] (224K)
- IMP5: Energetic Particles (Vlad): ppt [5250] (2.4M)
- ARENA+ in ITM (Pokol): pdf [5251] (416K)
- TORBEAM for ITM (Poli): ppt [5252] (320K)
- Ray-Tracing Code TRAVIS (Marushchenko): ppt [5253] (320K)
- SELFO-light and advanced Fokker-Planck developments (Hellsten): ppt [5254] (4.3M)
- GRAY: quasi-optical ray-tracing code for ECH/CD (Figini): pdf [5255] (480K)
- Training: The IMP5HCD workflow (Johnson): pdf [5256] (3.5M)
- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [5257] (384K)
- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [5258] (192K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [5259] (192K)
- Overview of IMP5 activities during 2010 (Farina): ppt [5260] (3.4M)

[5243] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf
[5244] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[5245] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
[5246] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
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[5253] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[5254] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[5255] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
[5256] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
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[5259] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
[5260] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt

26.6.25 isip

- ISIP (ITM): *ISIP* [5261] (2.2M)
- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [5262] (1.5M)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [5263] (320K)
- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [5264] (1.6M)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [5265] (1.2M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [5266] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [5267] (6.3M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [5268] (1.4M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [5269] (2.2M)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [5270] (768K)
- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [5271] (320K)
- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [5272] (2.6M)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [5273] (3.1M)
- Data structures in practice (Imbeaux): Data Structures inPractice [5274] (1.0M)
- Contents of the ITM public database (Imbeaux): ITM PublicDatabase [5275] (32K)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental Data Overview [5276] (320K)
- The universal access layer user guide (Manduchi): UAL User Guide [5277] (448K)
- ITM gateway user's guide (Guillerminet): Gateway User'sGuide: [5278] (3.9M)
- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [5279] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [5280] (6.0M)

[5261] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[5262] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
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[5280] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf

- UAL Tutorial (Imbeaux): UAL tutorial [5281] (32K)
- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [5282] (480K)
- ISIP tools training (Imbeaux): Introduction: [5283] (416K)
- Exercises (Imbeaux): Exercises: [5284] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [5285] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [5286] (864K)
- WebService Actor Generator (Guillerminet): ppt [5287] (704K)
- HPC2K - GRID and HPC Actor Generator (Guillerminet): ppt [5288] (1.5M)
- Parallel I/O in Simulation Workflows (Galonska): ppt [5289] (4.8M)
- Exp2ITM - a generic access to shot based data for European Tokamaks (Signoret): ppt [5290] (704K)
- Integrated Simulation Editor (Signoret): ppt [5291] (960K)
- Feedback control Simulation under the ITM platform (Barana): pdf [5292] (640K)
- Control Toolbox (Ravenel): ppt [5293] (608K)
- The ITM-TF Simulation Catalogue (Imbeaux): ppt [5294] (1.2M)
- Introduction to ISIP tools (Imbeaux): ppt [5295] (2.1M)
- Exp2ITM : populate ITM database with experimental data (Signoret): ppt [5296] (1.6M)
- Introduction to ISE (Signoret): ppt [5297] (2.2M)
- The Universal Access Layer User Guide (2009-03-03) (Manduchi): pdf [5298] (288K)
- Overview of ISIP activities during 2010 (Imbeaux): ppt [5299] (3.9M)
- Consistent Physical Objects - A data structure concept for Integrated Modelling (Imbeaux): ppt [5300] (1.6M)
- Universal Access Layer (Manduchi): pdf [5301] (1.1M)
- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [5302] (2.2M)

[5281] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_TUTORIAL.pdf
[5282] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf
[5283] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
[5284] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[5285] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[5286] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[5287] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
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[5291] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[5292] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[5293] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
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[5295] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISIP.ppt
[5296] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Basics_on_exp2ITM_v2.ppt
[5297] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt
[5298] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
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[5302] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt

26.6.26 ism

- ISM (ITM): *ISM* [5303] (2.2M)
- Integrated Scenario Modelling, ISM, Workprogramme (Litaudon): pdf [5304] (672K)
- ITER Hybrid Regime: modelling requests (Houlberg): pdf [5305] (864K)
- JET hybrid regime: requests for modelling (Joffrin): pdf [5306] (1.7M)
- Modelling of hybrid regime - present status (Parail): pdf [5307] (896K)
- ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk): pdf [5308] (1.4M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [5309] (2.0M)
- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch): ppt [5310] (1.4M)
- Report on paper on density and fuelling on ITER (Garzotti): ppt [5311] (64K)
- Current ramp-up wrapup and publication (Imbeaux): ppt [5312] (1.1M)
- Welcome and agenda (Voitsekhovitch): pdf [5313] (1.9M)
- Current rampdown at JET: experimental results and modelling tasks (Nunes): pdf [5314] (7.3M)
- Hybrid experiments for ISM modelling (Joffrin): ppt [5315] (2.0M)
- Agenda (Voitsekhovitch): ppt [5316] (32K)
- JET DT fusion yield projections (Challis): ppt [5317] (6.5M)
- Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement (Weisen): ppt [5318] (384K)
- JET high field/high current H-mode - extrapolation to DT operation (Voitsekhovitch): ppt [5319] (480K)
- Current diffusion analysis on JET hybrid shots (Garcia): ppt [5320] (384K)
- New simulations of ITER hybrid scenario (Garcia): ppt [5321] (352K)
- ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl): ppt [5322] (800K)
- Parameters for EPED simulations (Litaudon): ppt [5323] (640K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): ppt [5324] (7.2M)

[5303] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[5304] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Litaudon.pdf
[5305] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[5306] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Joffrin.pdf
[5307] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Parail.pdf
[5308] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[5309] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/2.Tuesday/Kalupin_ETS_V_and_VT_Denis.ppt
[5310] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[5311] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[5312] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[5313] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[5314] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[5315] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Joffrin-ISM-29-11-2010.ppt
[5316] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Agenda_DT.ppt
[5317] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Challis_DT_fusion_yield_projections_ISM_30Nov2010.ppt
[5318] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Thomasalphaheatingsummary.ppt
[5319] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/DT_Hmode_Voits.pdf
[5320] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/neocladif.ppt
[5321] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/newhybrid.ppt
[5322] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[5323] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
[5324] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt

- Impurity concentration during the current ramp up (Belo): ppt [5325] (1.3M)
- Predictive modelling of current ramp-down in JET discharges (Lonnroth): pdf [5326] (1.7M)
- JET current ramp down with METIS code (Artaud): ppt [5327] (480K)
- Update on ISM-P2-2010/11-08: ASDEX hybrid modelling (Citrin): ppt [5328] (1.1M)
- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [5329] (480K)
- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [5330] (224K)
- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [5331] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [5332] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon): ppt [5333] (1.9M)
- Conclusion working session Culham (Litaudon): ppt [5334] (544K)
- Agenda (Litaudon): pdf [5335] (544K)
- Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives (Voitsekhovitch): ppt [5336] (896K)
- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling (Houlberg): ppt [5337] (320K)
- On core-SOL Integration in Scenario Modelling for ITER (Kukushkin): pdf [5338] (352K)
- Integrated ITER scenario modelling and density evolution prospects (Wiesen): pdf [5339] (1.1M)
- Fully predictive modelling of L-H and H-L transition (Parail): ppt [5340] (2.8M)
- ETS (Coster): ppt [5341] (13M)
- Simulations of the H to L transition in JET plasmas (Belo): ppt [5342] (4.1M)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [5343] (192K)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [5344] (96K)
- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch): ppt [5345] (1.5M)

[5325] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[5326] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
[5327] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Artaud_rampdown.ppt
[5328] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt
[5329] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JET_77922_77914_JETTO_Koechl.ppt
[5330] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt
[5331] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[5332] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
[5333] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[5334] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[5335] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
[5336] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt
[5337] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
[5338] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/AK-ISM.pdf
[5339] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[5340] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
[5341] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[5342] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[5343] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
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[5345] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt

- JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi): ppt [5346] (6.8M)
- First CRONOS simulation of JT60-SA (Schneider): pdf [5347] (1.4M)
- LHCD in JT60_SA: a preliminary study (Barbato): pdf [5348] (288K)
- Next ISM working session: a word from the LOC (Hogeweij): pptx [5349] (12M)
- Status of edge modelling with EDGE2D for ITER Hybrid Scenaio (Harting): ppt [5350] (448K)
- SOUL1D benchmark using EDGE2D models and JET reference shots (Guillemaut): ppt [5351] (640K)
- Predictive modelling of H-L transition in JET (Parail): ppt [5352] (512K)
- Report on AUG modelling (Hobirk): ppt [5353] (768K)
- ETS validation (Basiuk): ppt [5354] (800K)
- Optimizing ITER current ramp-up for hybrid scenario (Hogeweij): ppt [5355] (224K)
- ITER hybrid density modelling: current status (Koechl): ppt [5356] (160K)
- Optimisation of operational space for long pulse scenarios (Polevoi): doc [5357] (64K)
- Optimisation of operational space for long pulse scenarios: xml table (Polevoi): xml [5358] (64K)
- Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi): doc [5359] (128K)
- First modelling of JT-60SA (Giruzzi): ppt [5360] (3.3M)
- Agenda (Litaudon): doc [5361] (128K)
- Introduction (Litaudon): ppt [5362] (928K)
- Validation ETS JET hybrid 77922: status and future work (Voitsekhovitch): ppt [5363] (2.3M)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [5364] (2.3M)
- Update on hybrid scenario (Garcia): ppt [5365] (704K)
- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar): pdf [5366] (2.3M)
- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici): pdf [5367] (3.8M)
- Modeling development for control for ITER advanced scenarios (Casper): pdf [5368] (1.8M)
- Current ramp up in JET hybrid scenarios (Voitsekhovitch): pdf [5369] (1.3M)
- Introduction (Litaudon): pdf [5370] (384K)

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[5348] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[5349] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[5350] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[5351] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
[5352] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Parail_PredictivemodellingofH-LtransitioninJET.ppt
[5353] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_AUG.ppt
[5354] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[5355] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_ITERhybridramp_upHogeweijISM11mar2011.ppt
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[5358] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[5359] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[5360] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[5361] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[5362] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[5363] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[5364] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[5365] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[5366] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[5367] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
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[5369] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf
[5370] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf

- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch): pdf [5371] (672K)
- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [5372] (224K)
- Analysis of current diffusion on ASDEX-Upgrade (Garcia): ppt [5373] (512K)
- Optimisation of the current ramp up phase for hybrid ITER discharges (Hogeweij): ppt [5374] (512K)
- #77922: current ramp-down (Koechl): ppt [5375] (128K)
- Update on hybrid scenario (Garcia): ppt [5376] (736K)
- MHD stability analysis at ISM working session (Lonnroth): ppt [5377] (9.3M)
- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [5378] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [5379] (2.2M)
- Agenda (Litaudon): pdf [5380] (160K)
- Welcome (Voitsekhovitch): pdf [5381] (576K)
- Introduction (Litaudon): ppt [5382] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [5383] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [5384] (4.1M)
- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [5385] (864K)
- Introduction (Litaudon): ppt [5386] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [5387] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [5388] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [5389] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [5390] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [5391] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [5392] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [5393] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [5394] (2.8M)

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[5372] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
[5373] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[5374] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[5375] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
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[5378] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[5379] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
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[5381] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
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[5384] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
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[5386] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[5387] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[5388] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
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[5390] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt
[5391] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt
[5392] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[5393] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[5394] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt

- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [5395] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [5396] (192K)
- Edge modelling resources - November 2011 (Groth): ppt [5397] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [5398] (2.2M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [5399] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [5400] (2.1M)
- Introduction (Litaudon): ppt [5401] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [5402] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [5403] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [5404] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [5405] (992K)
- L-H and H-L transition (Belo): ppt [5406] (704K)
- LHCD during JET current ramp up (Barbato): pdf [5407] (416K)
- Particle transport in JET and ITER HS (Garzotti): ppt [5408] (192K)
- Real time control (Liu): pptx [5409] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [5410] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [5411] (3.0M)
- Local information (Koechl): ppt [5412] (2.9M)
- Agenda (Litaudon): pdf [5413] (64K)
- Introduction (Litaudon): ppt [5414] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [5415] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [5416] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [5417] (1.9M)
- NCLASS benchmark (Basiuk): ppt [5418] (544K)

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[5397] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[5398] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[5399] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/JAEA_update.pdf
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[5401] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[5402] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[5403] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
[5404] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[5405] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
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[5407] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[5408] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt
[5409] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Feng_nov2011.pptx
[5410] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Voitsekhovitch_ISMWS_Nov2011.ppt
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[5412] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Koechl_LOC.ppt
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[5414] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[5415] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
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[5418] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt

- Current diffusion in hybrid scenarios (Garcia): ppt [5419] (352K)
- Density simulation in JET HS (Garzotti): ppt [5420] (576K)
- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [5421] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [5422] (416K)
- Free boundary equilibrium transport simulations of ITER scenarios under control (Urban): ppt [5423] (640K)
- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [5424] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [5425] (864K)
- Implementation of the JT-60SA NBI configuration in EU transport codes (Bolzonella): ppt [5426] (1.5M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): ppt [5427] (672K)
- Predictive simulations of JT60-SA (Garzotti): ppt [5428] (1.0M)
- Welcome and local information (Voitsekhovitch): ppt [5429] (352K)
- Agenda (Litaudon): ppt [5430] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [5431] (576K)
- Pulses for analysis with the ILW (Joffrin): ppt [5432] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [5433] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [5434] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [5435] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [5436] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [5437] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [5438] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [5439] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [5440] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [5441] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [5442] (288K)

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[5421] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Koechl_density_depletion.ppt
[5422] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Citrin_ISM_Vienna2012.ppt
[5423] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/freebie_iter_may2012_ism.pdf
[5424] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Litaudon_HybridMetis.ppt
[5425] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[5426] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Bolzonella_JT60SA_NBI.ppt
[5427] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[5428] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
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[5430] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[5431] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
[5432] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
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[5442] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt

- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [5443] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [5444] (320K)
- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [5445] (2.6M)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [5446] (1.7M)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [5447] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [5448] (416K)
- H-L transition with ITER like wall (Belo): ppt [5449] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [5450] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [5451] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [5452] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [5453] (832K)
- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [5454] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [5455] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [5456] (480K)
- Conclusions, information (Litaudon): ppt [5457] (640K)
- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [5458] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [5459] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [5460] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [5461] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [5462] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [5463] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [5464] (544K)
- European Transport Solver Status (Basiuk): ppt [5465] (608K)
- Code camp report (Figueiredo): pdf [5466] (288K)

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[5454] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Sips_IOS_modelling_CvsBeW.ppt
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[5466] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf

- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [5467] (22M)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [5468] (2.9M)
- Linear Stability Chain in the new gateway (Nabais): ppt [5469] (4.6M)
- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [5470] (736K)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [5471] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [5472] (288K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [5473] (192K)
- Activity within ISM (Barbato): pptx [5474] (320K)
- Closing of working session (Voitsekhovitch): pdf [5475] (224K)
- Agenda and working groups (Voitsekhovitch): pdf [5476] (256K)
- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [5477] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [5478] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [5479] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [5480] (288K)
- Agenda (Voitsekhovitch): pdf [5481] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [5482] (3.5M)
- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [5483] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [5484] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [5485] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [5486] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [5487] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [5488] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [5489] (2.4M)

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- Agenda (Voitsekhovitch): pdf [5490] (96K)
- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [5491] (640K)
- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [5492] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [5493] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [5494] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [5495] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [5496] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [5497] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [5498] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [5499] (96K)
- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [5500] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [5501] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [5502] (1.1M)
- Agenda (Voitsekhovitch): ppt [5503] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [5504] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [5505] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [5506] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [5507] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [5508] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [5509] (2.5M)
- Introduction meeting 29 September (Litaudon): pdf [5510] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [5511] (320K)

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- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [5512] (288K)
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- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [5514] (1.2M)
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- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [5517] (1.5M)
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- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [5520] (160K)
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- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [5523] (320K)
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- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [5528] (128K)
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- Introduction meeting 27 April 2011 (Litaudon): pdf [5534] (1.6M)

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- Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti): pdf [5546] (1.3M)
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- Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch): pdf [5556] (4.5M)
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[5535] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/IOS_modelling.ppt
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- Update on current ramp up modelling (T&C ITPA meeting) (Voitsekhovitch): pdf [5559] (1.7M)
- General information and preparation to the ISM working session November 7-11 2011 (Voitsekhovitch): ppt [5560] (960K)
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- IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch): pdf [5574] (960K)
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- Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban): pdf [5584] (4.0M)
- A new free-boundary equilibrium evolution code, FREEBIE (Kim): pdf [5585] (896K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pdf [5586] (384K)
- Integrated modelling of JT-60SA scenarios with the METIS code (Giruzzi): pdf [5587] (448K)
- Transport and Confinement in JT-60SA (Barbato): pdf [5588] (576K)
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- The EU ITM-TF effort - Achievements and First Physics Results (Falchetto): pdf [5590] (1.1M)
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- Short update on particle transport modelling following EPS conference (Garzotti): pdf [5596] (96K)
- Organisation of modelling activities in 2013 (Voitsekhovitch): pdf [5597] (544K)
- Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement (Baranov): pdf [5598] (16M)
- ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013 (Voitsekhovitch): pdf [5599] (512K)

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[5582] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[5583] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
[5584] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/JURBAN_EPS_overview_ISM.pdf
[5585] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Kim_FREEBIE_EPS_ISM.pdf
[5586] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garcia_EPS_ISM_meeting_jeronimo.pdf
[5587] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Giruzzi_EPS_4ISM.pdf
[5588] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Barbato.pdf
[5589] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf
[5590] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[5591] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Kalupin_Summary_IAEA.pdf
[5592] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Litaudon_introduction_summaryITPA.pdf
[5593] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Imbeaux_WEST_Scenarios_ISM_20121024.pdf
[5594] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Figueiredo_24Oct2012.pdf
[5595] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[5596] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Garzotti_24Oct2012.pdf
[5597] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
[5598] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Baranov_Hybrid_database.pdf
[5599] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf

- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [5600] (1.1M)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova-Stanik): pdf [5601] (160K)
- ISM news and coming events (Voitsekhovitch): pdf [5602] (224K)
- Role of fast ions in hybrid scenarios (Garcia): pdf [5603] (896K)
- Role of impurities in ITER-like ramp up in JET (Hogeweij): pdf [5604] (2.6M)
- ISM news and coming events, preparation to 2nd ISM working session 2013 (Voitsekhovitch): pdf [5605] (256K)
- DEMO preliminary scenario analysis: introduction and METIS simulations (Giruzzi): ppt [5606] (1.3M)
- Summary of WP12-SYS02 activity on DEMO1 scenario profile consistency (Fable): pdf [5607] (672K)
- Simulations with COREDIV code of DEMO discharges (Zagorski): ppt [5608] (1.4M)
- NBI simulations for DEMO1 (Baruzzo): ppt [5609] (3.7M)
- DEMO1 profile consistency and sensitivity studies by METIS (Bolzonella): pdf [5610] (224K)
- JINTRAC simulations for DEMO (Garzotti): ppt [5611] (256K)
- ISM news and coming events (Voitsekhovitch): pdf [5612] (192K)
- Modelling of JET hybrid scenarios with the European Transport Solver (Figueiredo): pdf [5613] (2.5M)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [5614] (992K)
- Integrated core+edge+MHD modelling of ELM mitigation at JET (Koechl): ppt [5615] (4.2M)
- Current density modelling in JET and JT-60U identity plasma experiments (Siren): pdf [5616] (1.5M)
- ISM news and coming events (Voitsekhovitch): pdf [5617] (224K)
- Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density (Ivanova-Stanik): pdf [5618] (416K)
- ISM news and coming events (Voitsekhovitch): pdf [5619] (224K)
- Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control (Hogeweij): ppt [5620] (6.1M)

[5600] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf
[5601] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf
[5602] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Voitsekhovitch_Garcia_Apr10_2013.pdf
[5603] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
[5604] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[5605] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Voitsekhovitch_Garcia_May23_2013.pdf
[5606] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[5607] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/WP1213_summary_EF.pdf
[5608] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt
[5609] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt
[5610] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[5611] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[5612] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
[5613] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Figueiredo.pdf
[5614] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[5615] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Koechl_ISM_modelling_of_ELM_mitigation_at_JET.ppt
[5616] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
[5617] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/Voitsekhovitch_Garcia_Sept4_2013.pdf
[5618] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/ITER_COREDIV_ISM_meeting_04_09_2013.pdf
[5619] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Voitsekhovitch_Garcia_Sept25_2013.pdf
[5620] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt

- PHYSICS COMPARISON AND MODELING OF THE JET AND JT-60U CORE AND EDGE: TOWARDS JT-60SA PREDICTIONS (Garcia): ppt [5621] (35M)
- Prediction of particle transport and density profiles in ITER (modelling proposals) (Voitsekhovitch): ppt [5622] (768K)
- ISM news and coming events (Voitsekhovitch): ppt [5623] (672K)
- ITPA summary (Garcia): ppt [5624] (5.3M)
- EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals (Voitsekhovitch): ppt [5625] (1.4M)
- Overview of ISM activities during 2010 (Litaudon): ppt [5626] (1.2M)

26.6.27 itm

- ITM (ITM): *ITM* [5627] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [5628] (25M)
- The EFDA HPC Project (Hatzky): pdf [5629] (832K)
- Integrated Modelling in ITER (Houlberg): ppt [5630] (2.3M)
- PRACE (Ottaviani): pps [5631] (160K)
- EUFORIA-Grid and HPC access for Fusion (Plociennik): ppt [5632] (12M)

26.6.28 mapper

- MAPPER (MAPPER): *MAPPER* [5633] (19M)

26.6.29 tfl

- ITM software policies and gateway user agreement (Strand): (doc) [5634] (96K)
- ITM software policies and gateway user agreement (Strand): (pdf) [5635] (128K)
- Gateway user agreement - invite (Strand): (doc) [5636] (64K)
- Gateway user agreement - invite (Strand): (pdf) [5637] (32K)
- ITM Software License and rights (Coelho): model licence [5638] (32K)
- Integrated Tokamak Modelling TF (Strand): Par Strand's RUSA 2009 Presentation [5639] (5.1M)

[5621] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[5622] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[5623] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[5624] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[5625] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
[5626] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
[5627] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[5628] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[5629] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[5630] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[5631] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[5632] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[5633] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[5634] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
[5635] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.pdf
[5636] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.doc
[5637] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GUA_invite.pdf
[5638] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf
[5639] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf

- ITER Integrated Modelling Expert Group - a brief overview (Strand): pdf [5640] (768K)
- Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand): Validation Procedure (Draft) [5641] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix) (Strand): Validation Procedure (Appendix) [5642] (288K)
- Overview of the European Integrated Tokamak Modelling Task Force (Falchetto): pdf [5643] (2.1M)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.7 Documents (sorted by author)

26.7.1 Altintas

- Kepler: *Kepler, I. Altintas (20 + 10)* [5644] (4.1M)

26.7.2 Angioni

- EFDA Transport Topical Group: survey of research activities: ppt [5645] (7.9M)

26.7.3 Artaud

- JET current ramp down with METIS code: ppt [5646] (480K)

26.7.4 Arter

- Recent experiences with CAD to neutronics and physics code conversion: CAD to Physics Codes (W.Arter) [5647] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix: CAD fix to Physics Codes (W.Arter) [5648] (800K)

26.7.5 Asunta

- Modelling NBI in ITM environment with ASCOT: pdf [5649] (480K)

26.7.6 Atanasiu

- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak: ppt [5650] (2.3M)

[5640] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ITER_Integrated_Modelling_Expert_Group.pdf
[5641] https://www.efda-itm.eu/ITM/imports/itm/public/draft_val_proc.pdf
[5642] https://www.efda-itm.eu/ITM/imports/itm/public/validation_procedure_appendix.pdf
[5643] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[5644] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[5645] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
[5646] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Artaud_rampdown.ppt
[5647] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[5648] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[5649] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_Asunta_ASCOT_ITM-GM2010.pdf
[5650] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt

26.7.7 Baelmans

- Convergence and accuracy of coupled FV/MC codes: ppt [5651] (3.8M)

26.7.8 Baiocchi

- Status on QualiKiz and TGLF validation and implementation in CRONOS: pdf [5652] (448K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23: pptx [5653] (1.6M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23: pdf [5654] (2.0M)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23: pdf [5655] (1.1M)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23: pdf [5656] (992K)

26.7.9 Barana

- Feedback control Simulation under the ITM platform: pdf [5657] (640K)

26.7.10 Baranov

- The q-profile formation in Hybrid pulses with ILW: modelling and experiment: ppt [5658] (29M)
- Modelling of tungtsen accumulation in pulses with ILW in JET: ppt [5659] (22M)
- Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement: pdf [5660] (16M)

26.7.11 Barbato

- LHCD in JT60_SA: a preliminary study: pdf [5661] (288K)
- LHCD during JET current ramp up: pdf [5662] (416K)
- JETTO simulations of q profile during ramp up and ramp down: pptx [5663] (544K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude: pptx [5664] (256K)
- Activity within ISM: pptx [5665] (320K)
- Transport and Confinement in JT-60SA: pdf [5666] (576K)
- LHCD simulation by ASTRA/FRTC of JET discharges: pdf [5667] (4.5M)

26.7.12 Baruzzo

- NBI simulations for DEMO1: ppt [5668] (3.7M)

[5651] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[5652] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/baiocchi.pdf
[5653] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/baiocchi_ism.pptx
[5654] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/2.Tuesday/baiocchi_ISM_03_12_2013_.pdf
[5655] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf
[5656] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/baiocchi_ism_26_06_2013.pdf
[5657] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[5658] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Baranov_TF.ppt
[5659] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[5660] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Baranov_Hybrid_database.pdf
[5661] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/JT60_SABarbato.pdf
[5662] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[5663] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Barbato_TF.pptx
[5664] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Barbato_ISM_WG_22Nov12.pptx
[5665] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Barbato_ISM_15_3_13.pptx
[5666] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Barbato.pdf
[5667] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Barbato_ISM_24Oct2012.pdf
[5668] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt

26.7.13 Basiuk

- European Transport Workflows - first results, validation and benchmark: pdf [5669] (800K)
- ETS validation: ppt [5670] (800K)
- Bootstrap comparison with NCLASS CRONOS/ASTRA: ppt [5671] (64K)
- NCLASS benchmark: ppt [5672] (544K)
- European Transport Solver Status: ppt [5673] (608K)
- Validation exercise of the Kepler Workflow: pdf [5674] (64K)

26.7.14 Batchelor

- Data coupling in the SWIM Framework: Plasma State: *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [5675] (544K)
- CPES: *CPES, D. Batchelor (20+10)* [5676] (416K)
- The Integrated Plasma Simulator: A flexible framework for coupled fusion simulations: pdf [5677] (5.0M)
- Center for Simulations of Wave Interactions with MHD (SWIM): pdf [5678] (1.2M)
- Assembling a SWIM IPS Simulation: pdf [5679] (480K)

26.7.15 Belo

- Impurity concentration during the current ramp up: ppt [5680] (1.3M)
- Simulations of the H to L transition in JET plasmas: ppt [5681] (4.1M)
- L-H and H-L transition: ppt [5682] (704K)
- H-L transition with ITER like wall: ppt [5683] (4.4M)
- Benchmark the ETS/impurity code against SANCO: pdf [5684] (544K)
- Simulations of the H to L transition in JET plasmas (EPS 2011): pdf [5685] (384K)
- Integrated core-edge modelling for JET Hybrid scenario: ppt [5686] (1.3M)

[5669] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[5670] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_ACT1.ppt
[5671] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[5672] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt
[5673] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Basiuk_ISM_2013_status_ETS_C.ppt
[5674] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Basiuk.pdf
[5675] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[5676] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf
[5677] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/IPS_overview_JET_Lisbon_2013.pdf
[5678] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[5679] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf
[5680] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Belo_current_ramp_up.ppt
[5681] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
[5682] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Belo_LH_and_HL_transition.ppt
[5683] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ILW_paula.ppt
[5684] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Belo_ETSimpurity_pop.pdf
[5685] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Belo-EPS-2011.pdf
[5686] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt

26.7.16 Bertelli

- Numerical codes for electron cyclotron heating and current drive: pdf [5687] (288K)
- TORBEAM: Physical Model: pdf [5688] (288K)

26.7.17 Besseghir

- DINA-CH and CRONOS - Using a full tokamak discharge simulator: DINA-CH + CRONOS overview (K.Besseghir) [5689] (2.1M)
- DINA-CH workflow: pdf [5690] (32K)

26.7.18 Bilato

- Report on ICRF benchmarking in 2014: IC benchmarking in 2014 [5691] (384K)

26.7.19 Bisai

- Edge and Scrape-off Layer integration: *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [5692] (192K)

26.7.20 Bizarro

- Modelling of JET current ramp down discharges with Bohm-gyroBohm model: doc [5693] (6.1M)
- Modelling of current ramp down: ppt [5694] (224K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport: pdf [5695] (1.1M)

26.7.21 Blanco

- European Reflectometer Code Consortium (ERCC) activities: ppt [5696] (3.5M)

26.7.22 Blum

- Free Boundary Equilibrium Code CEDRES++: pdf [5697] (608K)
- Free boundary equilibrium code CEDRES++: pdf [5698] (800K)
- Movie: CEDRES++ isoflux: mpg [5699] (5.4M)

[5687] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_ECcodes_ITM-IMP5-GM2010.pdf
[5688] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.pdf
[5689] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[5690] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_workflow-Favez.pdf
[5691] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/
[5692] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf
[5693] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[5694] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_Meeting_Bizarro.ppt
[5695] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Bizarro_Garching_Mar11_2013.pdf
[5696] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[5697] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Blum.pdf
[5698] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[5699] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/isoflux_ITER_T53000_5ms.mpg

26.7.23 Bolzonella

- ITM-TF plasma control working session and code camp: Welcome and Agenda (T. Bolzonella) [5700] (4.5M)
- Implementation of the JT-60SA NBI configuration in EU transport codes: ppt [5701] (1.5M)
- DEMO1 profile consistency and sensitivity studies by METIS: pdf [5702] (224K)
- Cross project session on Control: ppt [5703] (2.6M)

26.7.24 Boncagni

- Summary of existing or newly developed feedback controller(s) schemes on participating experiments: Controller schemes from experiments (T.Bolzonella) [5704] (288K)

26.7.25 Bonnin

- Plans for development and release of SOLPS-ITER: ppt [5705] (128K)

26.7.26 Boulbe

- Grid generation for Cedres++: CEDRES++ full 2D domain meshing (G.Huysmans) [5706] (960K)

26.7.27 Bourdelle

- STUDYING SCENARIOS FOR WEST WITH METIS: pptx [5707] (992K)

26.7.28 Brémond

- Free boundary equilibrium feedback control simulations under Kepler/ITM: Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [5708] (736K)

26.7.29 Bucalossi

- H-mode baseline scenario at 2.5 MA: ppt [5709] (3.2M)

26.7.30 Calabrò

- Modelling of FAST equilibrium configurations by a Toroidal Multipolar Expansion code using Kepler workflows: pdf [5710] (608K)
- Update on FIXFREE and CREATE-NL: ppt [5711] (1.4M)

26.7.31 Calabro

- L-H power threshold studies: Be/W vs C: ppt [5712] (480K)

[5700] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[5701] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Bolzonella_JT60SA_NBI.ppt
[5702] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[5703] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[5704] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[5705] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[5706] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[5707] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/METIS_for_WEST_ISMmeeting_june13.pptx
[5708] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[5709] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.1.5_Modelling.ppt
[5710] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[5711] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[5712] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt

26.7.32 Cardenas

- NA3: Dissemination (Miguel): pdf [5713] (2.3M)

26.7.33 Casper

- Modeling development for control for ITER advanced scenarios: pdf [5714] (1.8M)
- Validation ETS JET hybrid 77922: status and future work: ppt [5715] (1.2M)
- Corisca simulations of ITER hybrid mode operation: ppt [5716] (4.1M)

26.7.34 Castejon

- JRA1 Codea adaptation for grid (Paco): pdf [5717] (1.5M)

26.7.35 Challis

- JET DT fusion yield projections: ppt [5718] (6.5M)
- Wall proximity and shape validation in H-mode: ppt [5719] (6.0M)

26.7.36 Chang

- Tour de Project: Proto-FSP CPES: pdf [5720] (576K)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES: pdf [5721] (1.3M)

26.7.37 Citrin

- Update on ISM-P2-2010/11-08: ASDEX hybrid modelling: ppt [5722] (1.1M)
- Predictive transport analysis of JET and AUG hybrid scenarios: ppt [5723] (2.3M)
- Short update on the JET/AUG hybrid modelling activity: ppt [5724] (224K)
- Update on AUG/JET modelling: ppt [5725] (992K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction: ppt [5726] (416K)
- ITER hybrid scenario modelling with EPED constraints: pptx [5727] (480K)
- Predictive transport analysis of JET and AUG hybrid scenarios: ppt [5728] (1.8M)
- Predictive transport analysis of JET and AUG hybrid scenarios (EPS 2011): pdf [5729] (1.5M)

[5713] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[5714] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/CasperISMtalkUtrechtJuly2011.pdf
[5715] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[5716] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[5717] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[5718] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Challis_DT_fusion_yield_projections_ISM_30Nov2010.ppt
[5719] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[5720] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
[5721] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[5722] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt
[5723] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[5724] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
[5725] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
[5726] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Citrin_ISM_Vienna2012.ppt
[5727] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
[5728] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Citrin_AUGandJETmodellingupdate_2742011.ppt
[5729] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Citrin-EPS2011_5slidesummary.pdf

26.7.38 Coelho

- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting: Overview of EDRG for 2009 (R.Coelho) [5730] (3.3M)
- Summary of the ITM-TF kick-off meeting of the EDRG group: Minutes (R. Coelho) [5731] (224K)
- Summary of the first ITM-TF meeting on 3D machine descriptions: Minutes of the Meeting (R.Coelho) [5732] (352K)
- Experimentalists and Diagnosticians Resource Group (EDRG): Agenda and 3D related tasks (R.Coelho) [5733] (3.6M)
- Minutes of the first ITM working session on control issues: Minutes of the working session (R.Coelho/T.Bolzonella) [5734] (64K)
- ITM-TF plasma control working session: Welcome (R.Coelho) [5735] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009: General ITM overview (R.Coelho) [5736] (3.3M)
- Summary of the 3D machine descriptions WS in Garching: Minutes (R. Coelho) [5737] (192K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities: Overview of ITM datastructure heading to 3D (R. Coelho) [5738] (4.5M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010: EDRG Control related activities in the WP-2010 (R. Coelho) [5739] (3.3M)
- ITM datastructure and tools: ITM datastructure and tools (R. Coelho) [5740] (4.3M)
- Summary discussion on ERC3D integration: Summary discussion (R. Coelho) [5741] (96K)
- Call for participation - 2009 Work programme: Call for Participation [5742] (1.7M)
- Annual Report 2009: Annual Reporting [5743] (256K)
- Call for participation - 2010 Work programme: Call for Participation [5744] (224K)
- Annual Report 2010: Annual Reporting [5745] (4.4M)
- New angles for the line integrated signals.: report [5746] (128K)
- Definition of flux loops in EU-ITM datastructure: Flux loop position [5747] (576K)
- PF connections: PFconnections [5748] (64K)
- Langmuir CPO: Langmuir probes [5749] (576K)
- Fusion CPO: Fusion CPO [5750] (256K)

[5730] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[5731] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[5732] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[5733] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[5734] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[5735] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[5736] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[5737] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[5738] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[5739] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[5740] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[5741] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
[5742] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_CfP_WP09_TFL2_EDRG.pdf
[5743] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2009/edrg_reporting.pdf
[5744] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_CfP_WP10_ITM_EDRG.pdf
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[5750] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FusionCPO.pdf

- ITM Software License and rights: model licence [5751] (32K)
- Overview of EDRG results: ppt [5752] (3.5M)
- Overview of Experimentalist and Diagnostician Resource Group (EDRG): ppt [5753] (14M)
- EDRG: ppt [5754] (8.6M)
- Overview of EDRG activities during 2010: ppt [5755] (18M)

26.7.39 Coenen

- Ex 1.1.7/2.2.1/2.2.2 Modelling needs: pdf [5756] (3.0M)

26.7.40 Cooper

- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core: pdf [5757] (12M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core: pdf [5758] (12M)

26.7.41 Coster

- EU ITM-TF experience with CPOs: *EU ITM-TF experience with CPOs, D. Coster (20+10)* [5759] (3.1M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF: pdf [5760] (352K)
- ITM AMNS Interface: pdf [5761] (288K)
- Simulations of theedge plasma: the role of atomic, molecular and surface physics: pdf [5762] (128K)
- EDRG 3D wall descriptions: 3D codes on the IMP3 forge (D.Coster) [5763] (480K)
- ETS - Free Boundary Equilibrium: ppt [5764] (13M)
- Movie: Psi evolution (shot 5 run 42): mpg [5765] (32M)
- Movie: Ne/Te/q evolution (shot 5 run 42): mpg [5766] (30M)
- User Guide for the ETS: ETS User Guide [5767] (3.3M)
- Current ETS timeline (Gantt chart): (PDF) [5768] (32K)
- Current ETS timeline (Gantt chart): (MS Project) [5769] (256K)
- ETS: European Transport Solver - Current Status: ETS Status [5770] (19M)

[5751] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/Model_licence_for_the_ITM.pdf
[5752] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[5753] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[5754] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[5755] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[5756] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[5757] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
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[5759] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[5760] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[5761] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[5762] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[5763] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[5764] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/ETS-FBE.ppt
[5765] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/psi_5_42.mpg
[5766] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/comb_psi_5_42.900x400.mpg
[5767] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[5768] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.pdf
[5769] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_timeline.mpp
[5770] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf

- ETS Doxyfile: (PDF) [5771] (84M)
- The European Transport Solver: Presentation at ICNSP-2009 on the ETS [5772] (25M)
- Numerical Modeling for the Design of a Divertor for a Tokamak Fusion Reactor: ppt [5773] (62M)
- Presentation to ISM about the ETS: ppt [5774] (13M)
- European Transport Solver: pdf [5775] (5.3M)
- Agenda: pdf [5776] (32K)
- Introduction: ppt [5777] (2.9M)
- Talk given at the JET TF-T Meeting earlier in the year on the ETS: ppt [5778] (5.7M)
- ETS Status and Standards (reduced): ppt [5779] (864K)
- ETS Status and Standards (v1): pdf [5780] (2.1M)
- Requests to other projects: doc [5781] (64K)
- Work plan and Resources for the ETS in 2009: doc [5782] (128K)
- Current status of the ETS (present at the JET TFT meeting): pdf [5783] (768K)
- ITM plans with respect to Integrated Modelling, in particular with respect to Burn and Particle Control (presented at EFDA meeting on Fuelling and Particle Control, Session: Burn and Particle Control, March 2009): pdf [5784] (4.8M)
- ETS transport equations and list of variables (2008-08-01): pdf [5785] (352K)
- IMP3 2009 Kick-Off: pdf [5786] (640K)
- Collaboration Issue: Standards: pdf [5787] (576K)
- ETS Road Map (2009): doc [5788] (32K)
- ETS: ppt [5789] (13M)
- AMNS + IMP3: ppt [5790] (5.9M)
- ITM Workflows: ppt [5791] (7.9M)
- Coordination and Provision of AMNS data: ppt [5792] (1.5M)

[5771] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Doxygen.pdf
[5772] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[5773] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[5774] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
[5775] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[5776] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Agenda.pdf
[5777] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/2010-03_WS-CC_ETS_v1.ppt
[5778] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TF-T-ETS_Coster.ppt
[5779] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
[5780] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[5781] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[5782] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Work_plan_and_Resources_for_the_ETS_in_2009_v3.doc
[5783] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/2009_JET_TFT_ETS.pdf
[5784] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_Fuelling.ppt
[5785] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_TRANSPORT_EQUATIONS.pdf
[5786] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
[5787] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Collaboration_Issue_Standards_v1.pdf
[5788] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/Road_Map_ETS_2009.doc
[5789] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[5790] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[5791] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/DPC_Workflows_2012.ppt
[5792] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt

- Workflows: ppt [5793] (8.0M)
- IMP3: Transport Code and Discharge Evolution: ppt [5794] (4.1M)
- Present ITM capabilities: ppt [5795] (3.0M)
- AMNS: ppt [5796] (4.3M)
- IMP3: ppt [5797] (5.5M)
- Visualization Tools in the ITM: ppt [5798] (32K)
- Overview of IMP3 activities during 2010: ppt [5799] (8.6M)
- Storing Data on a Grid / AMNS: ppt [5800] (4.1M)
- ETS: Design Elements - Integrated Modelling: ppt [5801] (17M)
- evolving equilibrium: movie1 [5802] (32M)
- evolving plasma: movie2 [5803] (33M)
- Introduction Impact of EUFORIA (Pr, David), movie: Movie [5804] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie: Movie [5805] (544K)
- Exploitation and sustainability - (Par, David): pdf [5806] (160K)

26.7.42 Coster and Klingshirn

- Core-Edge Transport Coupling Via Manual Intervention: this document [5807] (15M)

26.7.43 Courquet

- Strategies for collaborative Design and Validation: *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [5808] (8.2M)
- Coupling CAD data to Simulations: *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [5809] (6.7M)
- Computational efficiently and simulation architecture: *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [5810] (3.1M)

26.7.44 Csepany

- Analysis of Runaway Electrons by Numerical Algorithms: pdf [5811] (64K)

[5793] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[5794] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[5795] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Present_IM_capabilities_v1.ppt
[5796] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
[5797] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[5798] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
[5799] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[5800] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[5801] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[5802] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[5803] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[5804] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[5805] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[5806] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[5807] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf
[5808] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[5809] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[5810] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[5811] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Gergely--summary_arena_prague_cc2011.pdf

26.7.45 Denvil

- Climate modeling Framework: *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [5812] (4.1M)

26.7.46 Dinklage

- Simulation of MSE spectra from predictive fusion plasma simulations: pdf [5813] (192K)

26.7.47 Dongen

- Numerical optimization of the actuator trajectories in ITER hybrid scenario: pdf [5814] (288K)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario: pdf [5815] (96K)

26.7.48 Duval

- Lessons learned from DINA-CH simulator: *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [5816] (832K)

26.7.49 EUFORIA

- EUFORIA: *EUFORIA* [5817] (5.3M)
- EUFORIA Vision: pdf [5818] (32K)
- Data access for Fusion Simulation: pdf [5819] (544K)

26.7.50 Elwasif

- SWIM Framework: *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [5820] (1.8M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes: pdf [5821] (3.5M)

26.7.51 Epperly

- A Brief Introduction to FACETS: pdf [5822] (608K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling: pdf [5823] (4.7M)

26.7.52 Eriksson

- AMNS work: ppt [5824] (160K)
- Overview of AMNS activities during 2010: ppt [5825] (1.8M)

[5812] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[5813] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[5814] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/PresentatieISM.pdf
[5815] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/PresentatieISM.pdf
[5816] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[5817] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[5818] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/
[5819] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EUFORIA_Data_access.ppt
[5820] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[5821] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[5822] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[5823] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[5824] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
[5825] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt

26.7.53 Fable

- ASTRA-7 a state-of-the-art IPP transport code: pdf [5826] (5.6M)
- Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model: pdf [5827] (1.8M)
- Summary of WP12-SYS02 activity on DEMO1 scenario profile consistency: pdf [5828] (672K)

26.7.54 Falchetto

- EU ITM-TF experience with Kepler: *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [5829] (1.2M)
- The EU ITM-TF effort - Achievements and First Physics Results: pdf [5830] (1.1M)
- ITM-TF Status and Achievements: ppt [5831] (4.8M)
- Euro-Fusion Code Development for Integrated Modelling Work Package: pdf [5832] (608K)
- ITM-TF Status and 2013 WorkPlan: ppt [5833] (3.3M)
- Opening: ppt [5834] (224K)
- ITM Overview: ppt [5835] (2.4M)
- Overview of the European Integrated Tokamak Modelling Task Force: pdf [5836] (2.1M)

26.7.55 Farina

- IMP5 Summary: pdf [5837] (224K)
- IMP5 2013 overview: ppt [5838] (5.2M)
- IMP5 2012 overview: ppt [5839] (9.0M)
- Overview of IMP5 activities during 2010: ppt [5840] (3.4M)

26.7.56 Feher

- PARSOLPS: pdf [5841] (1.6M)

26.7.57 Felici

- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation: pdf [5842] (3.8M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code: pdf [5843] (4.1M)

[5826] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
[5827] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Fable_TGLF_JET_ISM_8jun2011.pdf
[5828] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/WP1213_summary_EF.pdf
[5829] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[5830] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[5831] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Falchetto_ITMStatus.pptx
[5832] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/WP-CD_info_to_ITM.pdf
[5833] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[5834] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[5835] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
[5836] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[5837] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Farina_IMP5_Summary.pdf
[5838] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
[5839] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx
[5840] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
[5841] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/tfeher_solps_WPCD.pdf
[5842] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[5843] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/ISM_meeting_RAPTOR_talk.pdf

- RAPTOR capabilities for plasma simulation and control in ITER: pdf [5844] (1.8M)
- RAPTOR-based real-time observer: first ITER demonstration: pdf [5845] (1.5M)

26.7.58 Figini

- GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks: pdf [5846] (2.3M)
- GRAY code status: pdf [5847] (288K)
- GRAY: quasi-optical ray-tracing code for ECH/CD: pdf [5848] (480K)
- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases: EC benchmarking in 2014 [5849] (192K)

26.7.59 Figueiredo

- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data: pdf [5850] (2.6M)
- Code camp report: pdf [5851] (288K)
- Modelling of JET hybrid scenarios with European Transport Solver: pdf [5852] (640K)
- Progress in the simulation of JET hybrid pulse 77922 with the European Transport Solver: pdf [5853] (2.2M)
- Modelling of JET hybrid scenarios with the European Transport Solver: pdf [5854] (2.5M)

26.7.60 Frigione

- Characterization of L-mode domain: ppt [5855] (1.6M)

26.7.61 Fuchs

- Automated Plasma Reconstruction at ASDEX Upgrade: *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [5856] (576K)

26.7.62 Fukuyama

- Data structures and Code Interfaces of BPSD: *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [5857] (576K)

26.7.63 GForge Group L.L.C.

- GForge AS User Manual: GForge AS User Manual [5858] (8.9M)
- GForge AS Project Administrator Manual: GForge AS Project Administrator Manual [5859] (6.0M)

[5844] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_control_meeting.pdf
[5845] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/ISM_final_presentation_ffelici.pdf
[5846] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf
[5847] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[5848] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
[5849] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
[5850] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Figueiredo.pdf
[5851] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[5852] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/A._Figueiredo_WS_Report.pdf
[5853] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Figueiredo_24Oct2012.pdf
[5854] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Figueiredo.pdf
[5855] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
[5856] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[5857] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[5858] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[5859] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf

26.7.64 Galonska

- Approach on parallel I/O: Approach on parallel I/O (A. Galonska) [5860] (768K)
- Parallel I/O in Simulation Workflows: ppt [5861] (4.8M)

26.7.65 Garcia

- Current diffusion analysis on JET hybrid shots: ppt [5862] (384K)
- New simulations of ITER hybrid scenario: ppt [5863] (352K)
- Current diffusion analysis on JET hybrid shots: pdf [5864] (192K)
- Current diffusion analysis on JET hybrid shots: pdf [5865] (96K)
- Update on hybrid scenario: ppt [5866] (704K)
- Analysis of current diffusion on ASDEX-Upgrade: ppt [5867] (512K)
- Update on hybrid scenario: ppt [5868] (736K)
- Update on the collaboration project for the analysis of JT60U and JET shots: pdf [5869] (96K)
- Current diffusion in hybrid scenarios: ppt [5870] (352K)
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- Comparative transport analysis of JET and JT-60U discharges: pptx [5873] (832K)
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- Role of Fast Ions on JET Hybrid Scenarios: ppt [5875] (736K)
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- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions: docx [5878] (1.3M)
- Progress of Hybrid modeling for JET and extrapolation to D-T: pdf [5879] (320K)
- Proposals for ETS validation on JET Hybrid discharges: pdf [5880] (128K)
- Analysis of the hybrid shot 77280: pdf [5881] (96K)
- Update on the collaboration project for the analysis of JT60U and JET shots: pdf [5882] (192K)

[5860] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Parallel_IO_Galonska.pdf
[5861] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[5862] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/neocladif.ppt
[5863] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/newhybrid.ppt
[5864] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/neocladif_garcia.pdf
[5865] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/hybrid_garcia_ism_meeting.pdf
[5866] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[5867] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[5868] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_rampdown.ppt
[5869] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/JAEA_update.pdf
[5870] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_current_diffusion.ppt
[5871] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[5872] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Garcia_TF.pptx
[5873] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_presentationJET_jeronimo.pptx
[5874] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/JET_JT60U_jeronimo_ISM.pptx
[5875] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/fast_ion_jeronimo_ism.ppt
[5876] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_IO_jeronimo_ISM.pptx
[5877] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/75225_analysis_jeronimo.pdf
[5878] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/H-mode_jeronimo_nuclear_fusion_2.docx
[5879] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Garcia.pdf
[5880] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Garcia_hybrid.pdf
[5881] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Garcia_77280v2.pdf
[5882] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Garcia_JET_JT-60U.pdf

- Comparative transport analysis of JET and JT-60U discharges: pdf [5883] (384K)
- Role of fast ions in hybrid scenarios: pdf [5884] (896K)
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- ITPA summary: ppt [5886] (5.3M)

26.7.66 Garzotti

- Report on paper on density and fuelling on ITER: ppt [5887] (64K)
- Particle transport in JET and ITER HS: ppt [5888] (192K)
- Density simulation in JET HS: ppt [5889] (576K)
- Predictive simulations of JT60-SA: ppt [5890] (1.0M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed: ppt [5891] (288K)
- Modelling pellet fuelling (but not only) for ITER: pptx [5892] (160K)
- Progress on simulations of density profiles in hybrid plasmas: pptx [5893] (864K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results: pdf [5894] (384K)
- Density modelling for hybrid scenario at JET and ITER, preliminary results: pdf [5895] (1.3M)
- Pellet DEMO: ppt [5896] (2.5M)
- Density simulation in JET HS: pdf [5897] (128K)
- Short update on particle transport modelling following EPS conference: pdf [5898] (96K)
- JINTRAC simulations for DEMO: ppt [5899] (256K)

26.7.67 Giovannozzi

- XML2EQ (YAXFI): ppt [5900] (64K)
- Equilibrium, MHD, and Disruptions: ppt [5901] (2.6M)

[5883] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garcia_EPS_ISM_meeting_jeronimo.pdf
[5884] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Garcia_itpa.pdf
[5885] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[5886] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[5887] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Garzotti.ppt
[5888] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt
[5889] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
[5890] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
[5891] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[5892] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ITER_pellet_fuelling.pptx
[5893] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Garzotti_June7_2013.pptx
[5894] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Garzotti.pdf
[5895] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Garzotti_22_06_2011.pdf
[5896] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Demo_fuel_cycle_meeting_29_11_2011.ppt
[5897] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
[5898] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Garzotti_24Oct2012.pdf
[5899] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[5900] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[5901] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx

26.7.68 Giruzzi

- JT-60SA: operational scenarios and assessment of the plasmas: ppt [5902] (6.8M)
- First modelling of JT-60SA: ppt [5903] (3.3M)
- Summary of Chapter 2: Theoretical models and simulation codes: pdf [5904] (352K)
- Chapter 10: Theoretical modeles and simulation codes: pdf [5905] (192K)
- Integrated modelling of JT-60SA scenarios with the METIS code: pdf [5906] (448K)
- DEMO preliminary scenario analysis: introduction and METIS simulations: ppt [5907] (1.3M)

26.7.69 Goloborodko

- Code Camp report: pdf [5908] (384K)

26.7.70 Gomez

- Demonstration/Discussion (Antonio, David T), movie: movie [5909] (19M)
- Mixed grid HPC Workflow (Antonio): pdf [5910] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie: movie [5911] (52M)
- Mixed grid HPC Workflow (Antonio), movie: movie [5912] (33M)

26.7.71 Goswami

- SOUL: a 1D SOL module for CRONOS: pdf [5913] (384K)

26.7.72 Groth

- Edge modelling resources - November 2011: ppt [5914] (2.6M)

26.7.73 Guillemaut

- SOUL1D benchmark using EDGE2D models and JET reference shots: ppt [5915] (640K)

26.7.74 Guillerminet

- Introduction: IMAS requirements towards Frameworks and Workflows: *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [5916] (1.5M)
- Comparison of scientific workflow engines: *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [5917] (1.4M)

[5902] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
[5903] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[5904] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Giruzzi_ISM_Chapter_2.pdf
[5905] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Giruzzi_ISM_Chapter_10.pdf
[5906] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Giruzzi_EPS_4ISM.pdf
[5907] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/SYS02_Giruzzi_ISM.ppt
[5908] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Victor--code_camp_report__prague_cc2011.pdf
[5909] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[5910] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[5911] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[5912] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[5913] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Goswami_july_25_2011.pdf
[5914] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[5915] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
[5916] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[5917] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt

- Kepler workflow design and directors: Kepler workflow design and directors (29) (B. Guillerminet) [5918] (3.1M)
- ITM gateway user's guide: Gateway User'sGuide: [5919] (3.9M)
- ISIP tools training: Kepler Tutorial: [5920] (2.5M)
- Exercises: Kepler Exercises: [5921] (864K)
- WebService Actor Generator: ppt [5922] (704K)
- HPC2K - GRID and HPC Actor Generator: ppt [5923] (1.5M)
- ITM gateway users's guid: pdf [5924] (3.9M)
- Code Interface - FC2K, WS2K & HPC2K Tools: ppt [5925] (2.2M)
- JRA3: workflows (Bernard): pdf [5926] (1.3M)

26.7.75 Hardt

- LSDF - Large Scale Data Facility at KIT: pdf [5927] (2.1M)
- SA1: Grid (Marcus): pdf [5928] (1.7M)

26.7.76 Harting

- Status of edge modelling with EDGE2D for ITER Hybrid Scenaio: ppt [5929] (448K)
- EMC3-EIRENE 3D fluid SOL code package: pdf [5930] (256K)

26.7.77 Hatzky

- The EFDA HPC Project: pdf [5931] (832K)

26.7.78 Hayashi

- SOAF Framework: *[PDF]* [5932] (1.7M)
- SOAF Framework: *[PPTX]* [5933] (1.2M)

26.7.79 Hellsten

- Fast ICRH code for routine analysis: pdf [5934] (736K)
- SELFO-light and advanced Fokker-Planck developments: ppt [5935] (4.3M)

[5918] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[5919] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITM_gateway_users_guide_v3-1.pdf
[5920] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[5921] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[5922] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_WS2K_v1.ppt
[5923] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[5924] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
[5925] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[5926] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[5927] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[5928] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA1.pdf
[5929] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[5930] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_16/Harting_16.02.2011_v4.pdf
[5931] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[5932] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[5933] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[5934] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.pdf
[5935] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt

26.7.80 Henderson

- Optimization of the EC Launchers: pdf [5936] (3.2M)

26.7.81 Hobirk

- ASDEX Upgrade hybrid regime: requests in terms of modelling: pdf [5937] (1.4M)
- Report on AUG modelling: ppt [5938] (768K)
- Ex-2.3.1 Hybrid scenario development with the ILW: ppt [5939] (7.4M)

26.7.82 Hoenen

- Multiplexing/Demultiplexing actors: Multiplexer/De-multiplexer (O. Hoenon) [5940] (2.6M)
- Tightly-coupled workflows using MUSCLE2: pdf [5941] (480K)
- JRA4: visualization (Olivier): pdf [5942] (704K)

26.7.83 Hogeweij

- Optimising ITER current ramp up for hybrid scenario: ppt [5943] (224K)
- Next ISM working session: a word from the LOC: pptx [5944] (12M)
- Optimizing ITER current ramp-up for hybrid scenario: ppt [5945] (224K)
- Optimisation of the current ramp up phase for hybrid ITER discharges: ppt [5946] (512K)
- Optimizing the current ramp up phase for the hybrid ITER scenario: ppt [5947] (1.8M)
- ITER ramp-up and ramp-down: pptx [5948] (704K)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data: ppt [5949] (384K)
- Impact of W on current ramp-up phase in JET & ITER: pdf [5950] (2.5M)
- Current ramp up in ITER: effects of impurity density: pdf [5951] (1.8M)
- ACT2: JET current ramp up/down modelling: pdf [5952] (1.1M)
- Optimizing ITER Current Ramp-up for hybrid scenario: pdf [5953] (224K)
- Optimization of current ramp up phase for hybrid ITER discharges (EPS 2011): pdf [5954] (160K)

[5936] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Henderson_ITER_scenarios_EC.pdf
[5937] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
[5938] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/report_AUG.ppt
[5939] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[5940] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt
[5941] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/muscle2-lisbon2013.pdf
[5942] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[5943] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt
[5944] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_rijnhuizen_ad.pptx
[5945] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Hogeweij_ITERhybridramp_upHogeweijISM11mar2011.ppt
[5946] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[5947] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ITER_ramp_up_Hogeweij.ppt
[5948] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Hogeweij_TF.pptx
[5949] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Hogeweij_ISM_23Nov2012_ITERlike_RURD_qprofile_Analysis.ppt
[5950] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Hogeweij.pdf
[5951] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Hogeweij_ISM_IO_meeting.pdf
[5952] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Hogeweij_7june2013.pdf
[5953] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf
[5954] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Hogeweij_ISM_22jun2011.pdf

- Optimizing the current ramp-up phase for the hybrid ITER scenario: pdf [5955] (1.2M)
- Role of impurities in ITER-like ramp up in JET: pdf [5956] (2.6M)
- Modelling of ITER-like current ramps in JET with ILW: lessons for ITER regarding H-mode and li control: ppt [5957] (6.1M)

26.7.84 Houlberg

- Introduction: *Introduction, W. Houlberg 10 min.* [5958] (128K)
- ITER Hybrid Regime: modelling requests: pdf [5959] (864K)
- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling: ppt [5960] (320K)
- ITER IO Strategy on IM: pdf [5961] (224K)
- Integrated Modelling in ITER: ppt [5962] (2.3M)
- ITER Needs and Requirements: ppt [5963] (4.5M)
- ITER PF Validation: wmv [5964] (12M)

26.7.85 Huber

- Ex -2.2.5: Radiating type III ELMy H-mode: ppt [5965] (192K)

26.7.86 Huynh

- PCS integration with Simulink, Scicos & Kepler: *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [5966] (576K)
- Introduction ETS training 2011: Introduction training 2011, [5967] (512K)
- ETS_C training 2011: training 2011 [5968] (1.2M)

26.7.87 Huysmans

- IMP1 task2 kick-off meeting - Intro: IMP1 control related activities (G.Huysmans) [5969] (1.1M)

26.7.88 IMT

- Agenda: *Agenda* [5970] (1.0M)

[5955] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
[5956] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Hogeweij.pdf
[5957] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt
[5958] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[5959] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Houlberg.pdf
[5960] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
[5961] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Houlberg_ITER_IM.pdf
[5962] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[5963] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[5964] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[5965] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
[5966] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[5967] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
[5968] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf
[5969] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[5970] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx

26.7.89 ITM

- ITM: *ITM* [5971] (2.3M)
- ITM Code Camps: *ITM Code Camps* [5972] (25M)
- ISIP: *ISIP* [5973] (2.2M)
- ISIP + IMP12: Control: *ISIP + IMP12: Control* [5974] (1.5M)
- EDRG: *EDRG* [5975] (9.3M)
- AMNS: *AMNS* [5976] (2.1M)
- ISM: *ISM* [5977] (2.2M)
- IMP12 Equilibrium and Stability: *IMP12 Equilibrium and Stability* [5978] (2.9M)
- IMP3 Core: *IMP3 Core* [5979] (3.9M)
- IMP3 Edge: *IMP3 Edge* [5980] (3.6M)
- IMP4: *IMP4* [5981] (2.1M)
- IMP5-I: *IMP5-I* [5982] (5.6M)
- IMP5-II: *IMP5-II* [5983] (16M)

26.7.90 Imbeaux

- Use Cases and Outline of the Requirements: *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [5984] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt: *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [5985] (1.1M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces: *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [5986] (992K)
- Brief overview of experimental data in the ITM framework: Experimental data retrieval (F.Imbeaux) [5987] (320K)
- ITM control workflow concepts: ITM control workflow concepts (F.Imbeaux) [5988] (1.2M)
- ISIP - Status of control toolbox task: ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [5989] (2.2M)
- Machine Description User Guide.: User Guide [5990] (1.2M)

[5971] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[5972] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[5973] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[5974] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[5975] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[5976] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[5977] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[5978] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[5979] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[5980] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[5981] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[5982] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[5983] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[5984] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[5985] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[5986] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[5987] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[5988] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[5989] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[5990] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt

- Data structures in practice: Data Structures inPractice [5991] (1.0M)
- Contents of the ITM public database: ITM PublicDatabase [5992] (32K)
- Brief overview of experimental data in the ITM framework: Experimental Data Overview [5993] (320K)
- UAL Tutorial: UAL tutorial [5994] (32K)
- ISIP tools training: Introduction: [5995] (416K)
- Exercises: Exercises: [5996] (320K)
- The ITM-TF Simulation Catalogue: ppt [5997] (1.2M)
- Introduction to ISIP tools: ppt [5998] (2.1M)
- Current ramp-up wrapup and publication: ppt [5999] (1.1M)
- Status of scenario studies for WEST: pdf [6000] (640K)
- ISIP 2013 overview: ppt [6001] (2.2M)
- ISIP 2012 overview: ppt [6002] (1.9M)
- Overview of ISIP activities during 2010: ppt [6003] (3.9M)
- Consistent Physical Objects - A data structure concept for Integrated Modelling: ppt [6004] (1.6M)

26.7.91 Ivanova

- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity: ppt [6005] (288K)

26.7.92 Ivanova-Stanik

- SANCO - ETS/impurity code benchmarking for Be: ppt [6006] (1.4M)
- Raport JET ISM Code camp: impurity simulations for JET 81856: ppt [6007] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni: ppt [6008] (320K)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS: ppt [6009] (2.9M)
- ACT1: Status of impurity modelling with ETS: ppt [6010] (64K)
- ASTRA-COREDIV simulations for ITER hybrid scenario: ppt [6011] (800K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity: pdf [6012] (160K)
- Integrated core-SOL-divertor simulations of ITER H-mode scenarios with different pedestal density: pdf [6013] (416K)

[5991] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
[5992] https://www.efda-itm.eu/ITM/imports/isip/public/isip_PublicContent.pdf
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[5994] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_TUTORIAL.pdf
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[5997] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[5998] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISIP.ppt
[5999] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[6000] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Imbeaux_WEST_Scenarios_ISM_20121024.pdf
[6001] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[6002] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[6003] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[6004] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[6005] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ISMWS1_2013_COREDIV_4ITER.ppt
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[6007] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[6008] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt
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[6011] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/CODE_camp_ISM_JET-report.ppt
[6012] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf
[6013] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/ITER_COREDIV_ISM_meeting_04_09_2013.pdf

26.7.93 Jackson

- NA2: Training (Adrian): pdf [6014] (96K)
- SA2: HPC (Adrian): pdf [6015] (64K)
- SA3: User support (Adrian): pdf [6016] (64K)
- JRA2 Code adaptation for HPC (Adrian): pdf [6017] (160K)

26.7.94 Jardin

- Center for Extended MHD Modeling (CEMM): pdf [6018] (36M)
- Free-Boundary Modeling of NSTX Plasmas: pdf [6019] (896K)

26.7.95 Joffrin

- JET hybrid regime: requests for modelling: pdf [6020] (1.7M)
- Hybrid experiments for ISM modelling: ppt [6021] (2.0M)
- Task Force meeting on scenario modelling: introduction: ppt [6022] (864K)
- Pulses for analysis with the ILW: ppt [6023] (1.6M)
- Status of the scenario analysis and modelling work for C29 and C30: ppt [6024] (3.1M)
- Pulse list for C29 and C30: ppt [6025] (864K)
- Plasma scenarios for JT60SA: pdf [6026] (608K)

26.7.96 Johnson

- IMP5 CPOs: pdf [6027] (2.5M)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes: pdf [6028] (6.7M)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes: pdf [6029] (6.7M)
- Quick introduction to documentation with Doxygen: pdf [6030] (2.9M)
- IMP5: ITM tools a quick start: pdf [6031] (1.8M)
- IMP5 tools in 4.09a: pdf [6032] (160K)
- Integration of heating and fast particles models: ppt [6033] (2.8M)

[6014] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[6015] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
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[6022] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
[6023] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/ISM_Joffrin_19_11_2012.ppt
[6024] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
[6025] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/PulseList_Joffrin.ppt
[6026] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_07/Joffrin-07-09-2011.pdf
[6027] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
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[6031] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf
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[6033] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_imp5_workflow_johnson.ppt

- Training: The IMP5HCD workflow: pdf [6034] (3.5M)

26.7.97 Jonsson

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26.7.98 Kalupin

- ETS transport equations and list of variables: Description of the ETS [6036] (352K)
- Validation and verification of the European Transport Solver: pdf [6037] (3.7M)
- Validation and verification of the European Transport Solver: pdf [6038] (2.0M)
- The European Transport Solver (ETS): an integrated approach for transport simulations in the plasma core: pdf [6039] (256K)
- Running ETS in KEPLER: User Guide [6040] (7.0M)
- Demo on ETS workflow capabilities: ppt [6041] (6.1M)

26.7.99 Kemp

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26.7.100 Kim

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- A new free-boundary equilibrium evolution code, FREEBIE: pdf [6045] (896K)

26.7.101 Kiptily

- Nuclear reactions: pdf [6046] (1.2M)

26.7.102 Klasky

- ADIOS 1.2: pdf [6047] (3.1M)

[6034] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
[6035] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[6036] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
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[6043] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/DINA-CH_and_CRONOS_working_scheme_and_equations-Kim.pdf
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[6047] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf

26.7.103 Klingshirn

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- The ITM General Grid Description: ppt [6050] (2.7M)

26.7.104 Koechl

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- #77922: current ramp-down: ppt [6055] (128K)
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- Modelling of flux consumption in ILW current ramp-up discharges: ppt [6058] (416K)
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- PROCESS DEMO1 simulations with JETTO+SANCO: ppt [6061] (1.1M)
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- Integrated ITER scenario modelling and density evolution prospects: pdf [6064] (288K)
- Modelling of kick-triggered ELMs at JET - current status: pdf [6065] (416K)
- Modelling of ELM mitigation at JET: pdf [6066] (2.1M)
- Integrated core+edge+MHD modelling of ELM mitigation at JET: ppt [6067] (4.2M)

[6048] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/griddescription.pdf
[6049] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[6050] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[6051] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
[6052] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/Reports_from_WS/Comparison_BgB_CT_ITER_rampup_Koechl.ppt
[6053] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JET_77922_77914_JETTO_Koechl.ppt
[6054] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[6055] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
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[6067] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Koechl_ISM_modelling_of_ELM_mitigation_at_JET.ppt

26.7.105 Konz

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- Free boundary equilibrium reconstruction and feedback control in IMP12: Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [6069] (1.8M)
- Code integration in IMP12: Code integration in IMP12 (C. Konz) [6070] (6.1M)
- Using XML for code specific parameters: Fortran XML Parser: [6071] (768K)
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- The New ITM Website: pdf [6074] (1.5M)
- Minutes of the meeting on free boundary equilibrium and transport code coupling: pdf [6075] (96K)
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- MHD workflows (Christian): pdf [6078] (352K)
- MHD workflows (Christian), movie: movie [6079] (22M)

26.7.106 Kotov

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26.7.107 Kukushkin

- On core-SOL Integration in Scenario Modelling for ITER: pdf [6081] (352K)

26.7.108 Lao

- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D: *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [6082] (9.5M)

26.7.109 Lechte

- The European 3D Reflectometry code ERC3D - overview of structure: The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [6083] (352K)

[6068] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
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26.7.110 Lister

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- Movie: DINA plasma boundary: mpg [6085] (1.1M)
- Full tokamak simulation global workflow case study: pdf [6086] (64K)

26.7.111 Litaudon

- Integrated Scenario Modelling, ISM, Workprogramme: pdf [6087] (672K)
- Parameters for EPED simulations: ppt [6088] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4: ppt [6089] (1.9M)
- Conclusion working session Culham: ppt [6090] (544K)
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- JT-60SA: report from working session 04-08 July 2011: ppt [6095] (1.2M)
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- Introduction: ppt [6097] (960K)
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- JT-60SA scenario modelling: ppt [6100] (3.0M)
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[6089] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_JT60SA_ISM.ppt
[6090] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[6091] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
[6092] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
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[6094] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
[6095] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[6096] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[6097] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[6098] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
[6099] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[6100] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon-JT-60SA.ppt
[6101] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ISM_agenda_WS_May_2012.pdf
[6102] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[6103] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Litaudon_HybridMetis.ppt
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[6105] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
[6106] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Litaudon_introduction.pdf
[6107] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_introduction.pdf

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[6109] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_10/Litaudon_introduction.pdf
[6110] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_24/Litaudon_introduction.pdf
[6111] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Litaudon_introduction.pdf
[6112] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Litaudon_introduction.pdf
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[6115] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Litaudon_introduction.ppt
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[6118] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/Litaudon_introduction.pdf
[6119] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Litaudon_introduction.pdf
[6120] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_22/Litaudon_introduction.pdf
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[6124] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
[6125] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Litaudon_introduction2.ppt
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[6127] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Litaudon_introduction.pdf
[6128] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Litaudon_introduction.pdf
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[6130] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf
[6131] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf

- Introduction and IOS-ITPA 2012 summary: pdf [6132] (2.0M)
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26.7.112 Liu

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26.7.116 Lunt

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- 3D wall description of fusion devices: 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [6142] (6.1M)

26.7.117 MAPPER

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26.7.118 Maddison

- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims: ppt [6144] (5.7M)

26.7.119 Mailloux

- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap': ppt [6145] (5.3M)

[6132] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_10_24/Litaudon_introduction_summaryITPA.pdf
[6133] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[6134] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
[6135] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Feng_nov2011.pptx
[6136] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[6137] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/ISM_ITER_Modelling_needs.pptx
[6138] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
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[6143] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[6144] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[6145] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt

26.7.120 Maj

- On the modeling of drift fluxes with self-consistent electric field in the SOLPS code: pdf [6146] (3.7M)

26.7.121 Manduchi

- Kepler actor generation from simulink components: KEPLER Actor Generation from Simulink Components (G. Manduchi) [6147] (320K)
- The universal access layer user guide: UAL User Guide [6148] (448K)
- The Universal Access Layer User Guide (2009-03-03): pdf [6149] (288K)
- ISIP: ppt [6150] (1.4M)
- Universal Access Layer: pdf [6151] (1.1M)

26.7.122 Mannori

- Modeling, simulation, and controller design using ScicosLab and Kepler: Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [6152] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration: Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [6153] (6.3M)

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26.7.124 Marushchenko

- Ray-Tracing Code TRAVIS: pdf [6155] (320K)
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- CREATE-NL adaptation to ITM needs: CREATE-NL adaptation to ITM need (M. Mattei) [6157] (736K)

26.7.126 Mazon

- EFDA Feedback control group - general information and activities: EFDA Feedback Control Goup summary (A.Pironti) [6158] (192K)
- EFDA Feedback control - working group activities and perspectives: Feedback Control WG ongoing effort (D. Mazon) [6159] (2.3M)

[6146] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[6147] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/SimulinkActorGeneration.ppt
[6148] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_User_Guide.pdf
[6149] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
[6150] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ISIP_Overview_GM2011_v2.ppt
[6151] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
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[6156] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[6157] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
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[6159] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt

26.7.127 McCune

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26.7.128 McDonald

- Automated Plasma Reconstruction at JET: *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [6161] (2.3M)

26.7.129 Meneghini

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26.7.131 Monier-Garbet

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26.7.132 Moradi

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26.7.133 Moreau

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26.7.135 Nardon

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26.7.136 Nave

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- JETTO Run to Benchmark ETS Neutrals Package: pdf [6170] (1.5M)

26.7.137 Nielsen

- ITM-IMP4 Status & Achievements: ppt [6171] (2.1M)

[6160] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[6161] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[6162] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/Meneghini_itm2013.pdf
[6163] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Militello.pdf
[6164] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt
[6165] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[6166] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/4.Thursday/DMoreau_D3D093011.pdf
[6167] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Nabais.ppt
[6168] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[6169] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Nave_ETS_Benchmarking.ppt
[6170] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/neutrals_JETTO_Transp_Dec2013.ppt
[6171] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx

26.7.138 Nowak

- Status of the NTM module on new Gateway 4.10a for ISM ACT1: ppt [6172] (544K)
- ISM ACT1: progress in simulation of NTM effect in JET discharge: pdf [6173] (480K)

26.7.139 Nunes

- Current rampdown at JET: experimental results and modelling tasks: pdf [6174] (7.3M)

26.7.140 Ottaviani

- Overview of IMP12 activities during 2010: pps [6175] (4.6M)
- PRACE: pps [6176] (160K)

26.7.141 Palumbo

- Meshing strategy guidelines: 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [6177] (4.2M)

26.7.142 Parail

- Modelling of hybrid regime - present status: pdf [6178] (896K)
- Fully predictive modelling of L-H and H-L transition: ppt [6179] (2.8M)
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- Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting): pdf [6183] (3.7M)

26.7.143 Pereverzev

- ETS Numerics Quality Assessment / Verification: pdf [6184] (96K)
- Accuracy tests: pdf [6185] (64K)
- ETS benchmarking and verification: Intermediate report (ASTRA results): pdf [6186] (96K)
- Proposal for ETS verification and benchmarking procedure: pdf [6187] (96K)
- Closure of equilibriumtransport set / Data flow: pdf [6188] (32K)

[6172] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/NTM_CC_Garching_March_2013.ppt
[6173] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/NTM_Cadarache_June_2013.pdf
[6174] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
[6175] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[6176] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
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26.7.144 Petruczynik

- ITM scenarios using IPS: ppt [6189] (1.8M)

26.7.145 Pinches

- ITER Integrated Modelling Tools: Status and Outlook: pptx [6190] (2.4M)
- ITER Integrated Modelling Programme: ppt [6191] (28M)
- Integrated Modelling for ITER: ppt [6192] (8.3M)

26.7.146 Pironti

- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes: CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [6193] (672K)

26.7.147 Plociennik

- EUFORIA-Grid and HPC access for Fusion: ppt [6194] (12M)
- Distributed Resources in Kepler: ppt [6195] (1.7M)
- Cloud pilot: Cloud demo (Marcin): pdf [6196] (192K)
- Cloud pilot: Cloud demo (Marcin), movie: movie [6197] (35M)

26.7.148 Pokol

- ARENA+ in ITM: pdf [6198] (416K)

26.7.149 Polevoi

- Optimisation of operational space for long pulse scenarios: doc [6199] (64K)
- Optimisation of operational space for long pulse scenarios: xml table: xml [6200] (64K)
- Residual fuelling by LFS hydrogen pellets in He plasmas: doc [6201] (128K)
- Optimisation of operational phase for long-pulse scenarios: pdf [6202] (160K)

26.7.150 Poli

- TORBEAM for ITM: ppt [6203] (320K)

[6189] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[6190] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/4.Thursday/Pinches_ISM_June_2013.pptx
[6191] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/Pinches_EU_ITM_2013.pptx
[6192] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[6193] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[6194] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[6195] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[6196] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[6197] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[6198] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Pokol_ARENA.pdf
[6199] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[6200] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[6201] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[6202] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Polevoi-Tasks-Long-Pulse.pdf
[6203] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.ppt

26.7.151 Poujol

- Some examples of software solutions for solving multiphysics and/or multiscales problems: *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [6204] (4.1M)

26.7.152 Ravenel

- Development of a flight simulator for the control of plasma discharges: Flight Simulator for controlling plasma discharges (N.Ravenel) [6205] (1.6M)
- ISIP-ACT12 Control toolbox: ISIP-ACT12 Control Toolbox (N. Ravenel) [6206] (1.4M)
- Control Toolbox: ppt [6207] (608K)

26.7.153 Reiser

- The IMP4 wrapper for running IMP4 codes in UAL framework: pdf [6208] (224K)

26.7.154 Romanelli

- JINTRAC capabilities for integrated core - edge modelling: ppt [6209] (2.4M)

26.7.155 Sauter

- Introduction: IMAS requirements towards Automated Plasma Reconstruction: *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [6210] (832K)
- Introduction: IMAS requirements towards Plant system integration: *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [6211] (1.1M)
- Sawteeth and Neoclassical Tearing Modes Workflows: ppt [6212] (832K)
- Interpos - Generic Code Params - Numerical Fit: pdf [6213] (320K)

26.7.156 Schneider

- Neutral Beam Injection in ITM: pdf [6214] (480K)
- Present status of NBI codes for ITM: pdf [6215] (480K)
- Report on 2014 NBI benchmarks: NBI benchmarking in 2014 [6216] (192K)
- First CRONOS simulation of JT60-SA: pdf [6217] (1.4M)

[6204] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[6205] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[6206] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
[6207] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[6208] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[6209] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
[6210] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[6211] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[6212] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
[6213] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[6214] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[6215] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
[6216] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
[6217] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/jt60sa_cronos_schneider.pdf

26.7.157 Scott

- IMP4: pdf [6218] (352K)
- IMP4: pdf [6219] (288K)
- Overview of IMP4 activities during 2010: pdf [6220] (224K)

26.7.158 Signoret

- Data Mapping User Guide: User Guide [6221] (1.4M)
- Basics on exp2ITM usage.: presentation [6222] (2.3M)
- Tutorial/Demonstration: Kepler for Beginners: Kepler tutorial [6223] (480K)
- Exp2ITM - a generic access to shot based data for European Tokamaks: ppt [6224] (704K)
- Integrated Simulation Editor: ppt [6225] (960K)
- Exp2ITM : populate ITM database with experimental data: ppt [6226] (1.6M)
- Introduction to ISE: ppt [6227] (2.2M)

26.7.159 Sipilä

- 3D wall model of ASCOT: ASCOT 3D wall (S.Sipil) [6228] (15M)

26.7.160 Sips

- High priority modeling tasks from IOS-ITPA: ppt [6229] (576K)
- IOS-TG Ramp-up simulation Task: C - Be-W: ppt [6230] (736K)

26.7.161 Siren

- JET and JT-60U current profile modelling with identity plasma experiments: pptx [6231] (1.3M)
- Current density modelling in JET and JT-60U identity plasma experiments: pdf [6232] (1.5M)

26.7.162 Snyder

- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios: pdf [6233] (2.2M)

26.7.163 Soiland-Reyes

- Taverna: *Taverna, S. Soiland-Reyes (20 + 10)* [6234] (7.2M)

[6218] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[6219] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[6220] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[6221] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_exp2ITM_MappingFileDescription_v6.ppt
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[6225] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[6226] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/Basics_on_exp2ITM_v2.ppt
[6227] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt
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[6229] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
[6230] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Sips_IOS_modelling_CvsBeW.ppt
[6231] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Siren.pptx
[6232] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
[6233] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
[6234] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf

26.7.164 Stankiewicz

- COREDIV physicsl model: pdf [6235] (736K)

26.7.165 Steinbrecher

- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method: pdf [6236] (192K)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method: pdf [6237] (128K)

26.7.166 Strand

- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing: *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [6238] (896K)
- ITM software policies and gateway user agreement: (doc) [6239] (96K)
- ITM software policies and gateway user agreement: (pdf) [6240] (128K)
- Gateway user agreement - invite: (doc) [6241] (64K)
- Gateway user agreement - invite: (pdf) [6242] (32K)
- Integrated Tokamak Modelling TF: Par Strand's RUSA 2009 Presentation [6243] (5.1M)
- ITER Integrated Modelling Expert Group - a brief overview: pdf [6244] (768K)
- Preliminary Draft: Guidelines for the Validation and Verification Procedures: Validation Procedure (Draft) [6245] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix): Validation Procedure (Appendix) [6246] (288K)
- EUFORIA - Brief Overview: pdf [6247] (1.2M)
- Agenda: pdf [6248] (64K)
- Introduction Impact of EUFORIA (Pr, David): pdf [6249] (2.2M)

26.7.167 Subba

- ASPOEL mesh generator: ASPOEL mesh generator (F.Subba) [6250] (672K)
- Edge CPO: Edge CPO and grid structuring (F. Subba) [6251] (1.5M)
- Status of Edge Codes on the Gateway: ppt [6252] (2.2M)
- Status of grids in CPOS + edge CPOS: ppt [6253] (1.2M)

[6235] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Corediv_model.pdf
[6236] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Steinbrecher_ITM-GM2010.pdf
[6237] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Steinbrecher_ITM-GM2010.pdf
[6238] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[6239] https://www.efda-itm.eu/ITM/imports/itm/public/gateway/GatewayUserAgreement_ITM.doc
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[6249] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[6250] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[6251] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[6252] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[6253] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt

26.7.168 Tang

- Fusion Simulation Program (FSP): pdf [6254] (1.9M)

26.7.169 Tsironis

- Full-wave modelling of electromagnetic wave propagation with the code FWTOR: pdf [6255] (992K)

26.7.170 Tskhakaya

- Demonstration/Discussion (Antonio, David T): pdf [6256] (896K)

26.7.171 Urban

- Free boundary equilibrium transport simulations of ITER scenarios under control: ppt [6257] (640K)
- Free-boundary equilibrium transport simulations of ITER scenarios under control: pdf [6258] (4.0M)

26.7.172 Vlad

- Fast Particles activities during WP10: pdf [6259] (4.0M)
- IMP5: Energetic Particles: pdf [6260] (1.1M)
- Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles: pdf [6261] (2.1M)
- IMP5: Energetic Particles: ppt [6262] (2.4M)
- IMP5: Energetic Particles: pdf [6263] (7.4M)

26.7.173 Voitsekhovitch

- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP: ppt [6264] (1.4M)
- Welcome and agenda: pdf [6265] (1.9M)
- Agenda: ppt [6266] (32K)
- JET high field/high current H-mode - extrapolation to DT operation: ppt [6267] (480K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA: ppt [6268] (640K)
- Agenda of joint meeting/discussion: integrated core-edge-SOL modelling for ITER: present status & perspectives: ppt [6269] (896K)

[6254] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[6255] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Tsironis_FWTOR_ITM-IMP5-GM2010.pdf
[6256] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
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[6259] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
[6260] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_Energetic_Particles_ITM_GM2010.pdf
[6261] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Vlad_HMGC_HYMAGYC_ITM_GM2010.pdf
[6262] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[6263] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[6264] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Voitsekhovitch_PFDE_for_ETS.ppt
[6265] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[6266] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Agenda_DT.ppt
[6267] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/DT_Hmode_Voits.pdf
[6268] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
[6269] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Agenda_core_SOL_discussion.ppt

- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up: ppt [6270] (1.5M)
- Validation ETS JET hybrid 77922: status and future work: ppt [6271] (2.3M)
- Current ramp up in JET hybrid scenarios: pdf [6272] (1.3M)
- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS: pdf [6273] (672K)
- Benchmarking of momentum equation and GLF23 model for momentum: present status: doc [6274] (2.2M)
- Welcome: pdf [6275] (576K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922: ppt [6276] (928K)
- Modelling of JET Hybrid Scenarios: pdf [6277] (640K)
- Welcome and local information: ppt [6278] (352K)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport: ppt [6279] (1.1M)
- Agenda, news from the 1st week of code camp: pdf [6280] (480K)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP: ppt [6281] (864K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER: ppt [6282] (192K)
- Closing of working session: pdf [6283] (224K)
- Agenda and working groups: pdf [6284] (256K)
- Agenda: pdf [6285] (224K)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma: pdf [6286] (224K)
- Agenda: pdf [6287] (96K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance: pdf [6288] (160K)
- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp: ppt [6289] (2.3M)
- Agenda: ppt [6290] (768K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport: ppt [6291] (2.5M)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET: pdf [6292] (1.5M)

[6270] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/3.Wednesday/ISM_TC_ITPA.ppt
[6271] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[6272] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf
[6273] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[6274] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
[6275] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[6276] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Voitsekhovitch_ISMWS_Nov2011.ppt
[6277] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
[6278] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[6279] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Voitsekhovitch_ISM_WS_Nov2012.ppt
[6280] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/Voitsekhovitch_Garcia_ISMWS1.pdf
[6281] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/2.Thursday/NBI_NUBEAM_FIN.ppt
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[6283] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Voitsekhovitch_Garcia_ISMWS1_closing.pdf
[6284] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/1.Monday/Agenda_June3_2013.pdf
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[6287] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Agenda_ISM_ws_June7_2013.pdf
[6288] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/Voitsekhovitch.pdf
[6289] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/1.Monday/Welcome_Agenda_3rdISM_WS.ppt
[6290] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Agenda_6Dec2013.ppt
[6291] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
[6292] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_11_10/Voitsekhovitch_DIIID.pdf

- Report from ITM/IMP3 Code Camp: ETS V&V: pdf [6293] (320K)
- Proposals for ETS validation on JET Hybrid discharges: pdf [6294] (160K)
- Summary report on ISM WS & ETS CC: ETS benchmarking: pdf [6295] (256K)
- ETS V&V activity during coming Code Camp 23-27 May Helsinki: pdf [6296] (224K)
- Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO: pdf [6297] (832K)
- Report from ITM General Meeting and discussion on 2012 activities: pdf [6298] (4.5M)
- Update on current ramp up modelling (T&C ITPA meeting): pdf [6299] (1.7M)
- General information and preparation to the ISM working session November 7-11 2011: ppt [6300] (960K)
- ACT1 restart: pdf [6301] (736K)
- Modelling of JET hybrid scenarios with GLF23 model: pdf [6302] (2.0M)
- IOS-ITPA (16-19 April 2012) summary report: modelling: pdf [6303] (960K)
- Simulations of ASDEX-Upgrade HS with Bohm-gyroBohm transport model: ppt [6304] (512K)
- Integrated modelling for tokamak plasma: physics and scenario optimisation: pdf [6305] (256K)
- Organisation of modelling activities in 2013: pdf [6306] (544K)
- ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013: pdf [6307] (512K)
- ISM news and coming events: pdf [6308] (224K)
- ISM news and coming events, preparation to 2nd ISM working session 2013: pdf [6309] (256K)
- ISM news and coming events: pdf [6310] (192K)
- ISM news and coming events: pdf [6311] (224K)
- ISM news and coming events: pdf [6312] (224K)

[6293] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_report.pdf
[6294] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_02_09/Voitsekhovitch_ETS_ISM-Validation.pdf
[6295] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_06/Voitsekhovitch-report_ACT1_ISM_VV_impurity.pdf
[6296] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_05_11/ACT1_ISM_Voitsekhovitch.pdf
[6297] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_06_08/Voitsekhovitch_GLF23benchmark_rotation.pdf
[6298] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_09_28/Voitsekhovitch_GMinfo_plans.pdf
[6299] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[6300] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[6301] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf
[6302] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Voitsekhovitch_Feb22_2012.pdf
[6303] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Voitsekhovitch_IOS_summary.pdf
[6304] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[6305] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[6306] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
[6307] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf
[6308] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Voitsekhovitch_Garcia_Apr10_2013.pdf
[6309] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Voitsekhovitch_Garcia_May23_2013.pdf
[6310] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
[6311] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_04/Voitsekhovitch_Garcia_Sept4_2013.pdf
[6312] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Voitsekhovitch_Garcia_Sept25_2013.pdf

- Prediction of particle transport and density profiles in ITER (modelling proposals): ppt [6313] (768K)
- ISM news and coming events: ppt [6314] (672K)
- EUROFUSION Consortium Call for Participation in Work Packages: modelling proposals: ppt [6315] (1.4M)
- INTEGRATED SCENARIO MODELLING: Summary of ISM group activities 2013: pdf [6316] (1.0M)

26.7.174 Weisen

- Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement: ppt [6317] (384K)

26.7.175 Westerhof

- Numerical Codes for Electron Cyclotron heating and Current Drive: pdf [6318] (128K)

26.7.176 Wiesen

- Integrated ITER scenario modelling and density evolution prospects: ppt [6319] (7.2M)
- Integrated ITER scenario modelling and density evolution prospects: pdf [6320] (1.1M)
- Integrated edge modelling plans for ISM 2010/2011: pdf [6321] (288K)

26.7.177 Yadikin

- IMP12 at the end of 2013: ppt [6322] (7.8M)

26.7.178 Yadykin

- MARS-F on ITM: MARS-F on ITM (D. Yadykin) [6323] (96K)
- Status of MARS-F and CarMa codes on ITM: ppt [6324] (1.1M)

26.7.179 Yokoyama

- Automated Plasma Reconstruction at LHD: *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [6325] (3.7M)

26.7.180 Zagorski

- Simulations with COREDIV code of DEMO discharges: ppt [6326] (1.4M)

[6313] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[6314] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[6315] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
[6316] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
[6317] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/2.Tuesday/DT_discussion/Thomasalphaheatingsummary.ppt
[6318] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[6319] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Wiesen_ISM_01dec2010.ppt
[6320] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Wiesen_ISM_08mar2011_c.pdf
[6321] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_09_29/Wiesen.pdf
[6322] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[6323] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[6324] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Yadykin.ppt
[6325] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[6326] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt

26.7.181 Zwingmann

- Validation Procedure of the Tokamak Equilibrium Reconstruction Code EQUAL with a ScientificWorkflow System: pdf [6327] (1.8M)
- Fitting to Scattered Data: ppt [6328] (384K)
- EQUAL in predictive mode: ppt [6329] (320K)
- Equilibrium Reconstruction with EQUAL: ppt [6330] (1.7M)
- Equilibrium and MHD stability chain (IMP12): ppt [6331] (2.6M)

26.7.182 de Baar

- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios: pdf [6332] (2.3M)

26.7.183 unknown

- Standardized equations: Form of the standardizeequations [6333] (128K)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.8 Documents (sorted by complexity)

26.8.1 expert

- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [6334] (3.6M)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [6335] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [6336] (800K)
- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [6337] (960K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [6338] (672K)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [6339] (4.2M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [6340] (6.3M)

[6327] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Zwingmann_eps2010_v2_8.pdf
[6328] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Zwingmann_fife-fitting_gs04.ppt
[6329] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/equal_pred_wz04.ppt
[6330] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[6331] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/WZ_equistab_ITMGM_2011_V2.6.ppt
[6332] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[6333] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/STANDARDISED_EQUATION.pdf
[6334] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[6335] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[6336] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[6337] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[6338] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt
[6339] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
[6340] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P2_r2.pdf

- PF connections (Coelho): PFconnections [6341] (64K)
- Langmuir CPO (Coelho): Langmuir probes [6342] (576K)
- Fusion CPO (Coelho): Fusion CPO [6343] (256K)
- The universal access layer user guide (Manduchi): UAL User Guide [6344] (448K)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [6345] (2.3M)
- Introduction ETS training 2011 (Huynh): Introduction training 2011, [6346] (512K)
- ETS_C training 2011 (Huynh): training 2011 [6347] (1.2M)
- Standardized equations (unknown): Form of the standardizeequations [6348] (128K)
- Running ETS in KEPLER (Kalupin): User Guide [6349] (7.0M)

26.8.2 introductory

- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [6350] (320K)
- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [6351] (32K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [6352] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [6353] (3.3M)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [6354] (1.1M)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [6355] (192K)
- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [6356] (1.6M)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [6357] (2.1M)
- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [6358] (672K)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [6359] (4.5M)
- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [6360] (6.1M)

[6341] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_PFconnections.pdf
[6342] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_LangmuirCPO.pdf
[6343] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_FusionCPO.pdf
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[6345] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
[6346] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
[6347] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf
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[6350] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[6351] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc
[6352] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[6353] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[6354] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[6355] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
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[6359] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[6360] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt

- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [6361] (1.5M)
- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [6362] (4.5M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [6363] (1.9M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [6364] (1.4M)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [6365] (768K)
- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [6366] (320K)
- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [6367] (2.6M)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [6368] (3.1M)
- ITM datastructure and tools (Coelho): ITM datastructure and tools (R. Coelho) [6369] (4.3M)
- Code integration in IMP12 (Konz): Code integration in IMP12 (C. Konz) [6370] (6.1M)
- Data structures in practice (Imbeaux): Data Structures inPractice [6371] (1.0M)
- Contents of the ITM public database (Imbeaux): ITM PublicDatabase [6372] (32K)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental Data Overview [6373] (320K)
- ITM gateway user's guide (Guillerminet): Gateway User'sGuide: [6374] (3.9M)
- ITM software policies and gateway user agreement (Strand): (doc) [6375] (96K)
- ITM software policies and gateway user agreement (Strand): (pdf) [6376] (128K)
- Gateway user agreement - invite (Strand): (doc) [6377] (64K)
- Gateway user agreement - invite (Strand): (pdf) [6378] (32K)
- ITM Software License and rights (Coelho): model licence [6379] (32K)
- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [6380] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [6381] (6.0M)
- UAL Tutorial (Imbeaux): UAL tutorial [6382] (32K)

[6361] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Edge_CPO.ppt
[6362] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[6363] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
[6364] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Codecamps-NR.ppt
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[6367] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_01_Hoenen_de_mux.ppt
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[6370] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[6371] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ITMDataStructures-1.pdf
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[6380] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[6381] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[6382] https://www.efda-itm.eu/ITM/imports/isip/public/isip_UAL_TUTORIAL.pdf

- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [6383] (480K)
- ISIP tools training (Imbeaux): Introduction: [6384] (416K)
- Exercises (Imbeaux): Exercises: [6385] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [6386] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [6387] (864K)
- Using XML for code specific parameters (Konz): Fortran XML Parser: [6388] (768K)
- Integrated Tokamak Modelling TF (Strand): Par Strand's RUSA 2009 Presentation [6389] (5.1M)
- XML2EQ (YAXFI) (Giovannozzi): ppt [6390] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [6391] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [6392] (384K)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [6393] (5.5M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [6394] (800K)
- EQUAL in predictive mode (Zwingmann): ppt [6395] (320K)
- IMP5 CPOs (Johnson): pdf [6396] (2.5M)
- Quick introduction to documentation with Doxygen (Johnson): pdf [6397] (2.9M)
- IMP5: ITM tools a quick start (Johnson): pdf [6398] (1.8M)
- IMP5: Energetic Particles (Vlad): ppt [6399] (2.4M)
- GRAY: quasi-optical ray-tracing code for ECH/CD (Figini): pdf [6400] (480K)
- Training: The IMP5HCD workflow (Johnson): pdf [6401] (3.5M)

26.8.3 standard

- ITM (ITM): *ITM* [6402] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [6403] (25M)
- ISIP (ITM): *ISIP* [6404] (2.2M)

[6383] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf
[6384] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf
[6385] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[6386] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[6387] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[6388] https://www.efda-itm.eu/ITM/imports/isip/public/isip_FortranXMLParser.pdf
[6389] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Integrated_Tokamak_Modeling.pdf
[6390] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Giovannozzi_XML2EG.ppt
[6391] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.pdf
[6392] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Zwingmann_fife-fitting_gs04.ppt
[6393] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Koechl_Coupling_between_CREATE-NL_and_JINTRAC.ppt
[6394] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/Cedres.pdf
[6395] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20101108_fbe_transport/equal_pred_wz04.ppt
[6396] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[6397] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.pdf
[6398] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.pdf
[6399] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.ppt
[6400] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Gray-status.pdf
[6401] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_training_imp5hcd_Johnson.pdf
[6402] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[6403] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[6404] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt

- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [6405] (1.5M)
- EDRG (ITM): *EDRG* [6406] (9.3M)
- AMNS (ITM): *AMNS* [6407] (2.1M)
- ISM (ITM): *ISM* [6408] (2.2M)
- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [6409] (2.9M)
- IMP3 Core (ITM): *IMP3 Core* [6410] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [6411] (3.6M)
- IMP4 (ITM): *IMP4* [6412] (2.1M)
- IMP5-I (ITM): *IMP5-I* [6413] (5.6M)
- IMP5-II (ITM): *IMP5-II* [6414] (16M)
- EUFORIA (EUFORIA): *EUFORIA* [6415] (5.3M)
- MAPPER (MAPPER): *MAPPER* [6416] (19M)
- Agenda (IMT): *Agenda* [6417] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [6418] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [6419] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [6420] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [6421] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [6422] (1.8M)
- SOAF Framework (Hayashi): *[PDF]* [6423] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [6424] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [6425] (4.1M)

[6405] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[6406] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt
[6407] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[6408] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[6409] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[6410] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[6411] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[6412] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[6413] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[6414] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[6415] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[6416] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[6417] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[6418] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[6419] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[6420] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[6421] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[6422] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[6423] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[6424] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[6425] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt

- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [6426] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [6427] (7.2M)
- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [6428] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [6429] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [6430] (1.2M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [6431] (992K)
- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [6432] (576K)
- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [6433] (544K)
- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [6434] (6.7M)
- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [6435] (3.1M)
- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [6436] (896K)
- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [6437] (3.1M)
- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [6438] (4.8M)
- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [6439] (4.1M)
- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [6440] (192K)

[6426] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[6427] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf
[6428] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[6429] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[6430] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[6431] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[6432] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[6433] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[6434] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[6435] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[6436] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[6437] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[6438] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf
[6439] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[6440] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf

- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [6441] (416K)
- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [6442] (832K)
- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [6443] (2.3M)
- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [6444] (576K)
- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [6445] (9.5M)
- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [6446] (3.7M)
- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [6447] (1.1M)
- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [6448] (576K)
- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [6449] (832K)
- Nuclear reactions (Kiptily): pdf [6450] (1.2M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [6451] (352K)
- ITM AMNS Interface (Coster): pdf [6452] (288K)
- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [6453] (128K)
- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [6454] (3.3M)
- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [6455] (224K)
- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [6456] (352K)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [6457] (15M)

[6441] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf
[6442] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[6443] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[6444] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[6445] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[6446] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[6447] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[6448] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[6449] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[6450] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[6451] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[6452] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[6453] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[6454] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[6455] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[6456] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[6457] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt

- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [6458] (480K)
- 3D Machine Description of Fusion Devices (Lunt): pdf [6459] (4.1M)
- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [6460] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [6461] (3.5M)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [6462] (64K)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [6463] (288K)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [6464] (1.2M)
- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [6465] (192K)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [6466] (3.3M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [6467] (2.2M)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [6468] (736K)
- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [6469] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [6470] (736K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [6471] (96K)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [6472] (2.3M)
- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [6473] (352K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [6474] (96K)
- Call for participation - 2009 Work programme (Coelho): Call for Participation [6475] (1.7M)
- Annual Report 2009 (Coelho): Annual Reporting [6476] (256K)
- Call for participation - 2010 Work programme (Coelho): Call for Participation [6477] (224K)
- Annual Report 2010 (Coelho): Annual Reporting [6478] (4.4M)

[6458] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[6459] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[6460] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[6461] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[6462] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[6463] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[6464] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[6465] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[6466] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[6467] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[6468] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[6469] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[6470] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
[6471] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[6472] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt
[6473] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[6474] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
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[6478] https://www.efda-itm.eu/ITM/imports/edrg/public/cfp_and_report/2010/edrg_reporting.pdf

- Machine Description User Guide. (Imbeaux): User Guide [6479] (1.2M)
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- Data Mapping User Guide (Signoret): User Guide [6482] (1.4M)
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- Update on FIXFREE and CREATE-NL (Calabrò): ppt [6500] (1.4M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [6501] (12M)

[6479] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_MachineDescriptionUserGuide_4.ppt
[6480] https://www.efda-itm.eu/ITM/imports/edrg/public/md_and_dm/edrg_Convention_angles_interfdiag.pdf
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[6490] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
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[6501] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf

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- The European Transport Solver (Coster): Presentation at ICNSP-2009 on the ETS [6517] (25M)
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[6525] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/

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[6526] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
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[6528] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
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[6548] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt

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[6549] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ETS_Status_and_Standards_v1.ppt
[6550] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
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- GRAY code status (Figini): pdf [6582] (288K)
- Ray-Tracing Code TRAVIS (Marushchenko): pdf [6583] (320K)
- IMP5 tools in 4.09a (Johnson): pdf [6584] (160K)
- Code Camp report (Goloborodko): pdf [6585] (384K)
- Integration of heating and fast particles models (Johnson): ppt [6586] (2.8M)

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[6570] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Vlad_Fast_Particles_ITM-GM2010.pdf
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[6583] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
[6584] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pdf
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- ARENA+ in ITM (Pokol): pdf [6588] (416K)
- TORBEAM for ITM (Poli): ppt [6589] (320K)
- Ray-Tracing Code TRAVIS (Marushchenko): ppt [6590] (320K)
- SELFO-light and advanced Fokker-Planck developments (Hellsten): ppt [6591] (4.3M)
- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [6592] (384K)
- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [6593] (192K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [6594] (192K)
- Integrated Scenario Modelling, ISM, Workprogramme (Litaudon): pdf [6595] (672K)
- ITER Hybrid Regime: modelling requests (Houlberg): pdf [6596] (864K)
- JET hybrid regime: requests for modelling (Joffrin): pdf [6597] (1.7M)
- Modelling of hybrid regime - present status (Parail): pdf [6598] (896K)
- ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk): pdf [6599] (1.4M)
- Validation and verification of the European Transport Solver (Kalupin): pdf [6600] (2.0M)
- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch): ppt [6601] (1.4M)
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- Current ramp-up wrapup and publication (Imbeaux): ppt [6603] (1.1M)
- Welcome and agenda (Voitsekhovitch): pdf [6604] (1.9M)
- Current rampdown at JET: experimental results and modelling tasks (Nunes): pdf [6605] (7.3M)
- Hybrid experiments for ISM modelling (Joffrin): ppt [6606] (2.0M)
- Agenda (Voitsekhovitch): ppt [6607] (32K)
- JET DT fusion yield projections (Challis): ppt [6608] (6.5M)

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[6588] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Pokol_ARENA.pdf
[6589] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.ppt
[6590] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[6591] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
[6592] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/
[6593] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/WP14-D05-EC_benchmark.docx
[6594] https://www.efda-itm.eu/ITM/imports/imp5/public/benchmark/2014/NBI_benchmarks_2014_v03.docx
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[6603] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/3.Wednesday/ISM_Imbeaux.ppt
[6604] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Welcome_ISM.pdf
[6605] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/1.Monday/Nunes_ISM_29Nov2010.ppt
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- Heating of Thermal Ions by Alphas in DTE1: Heating or confinement improvement (Weisen): ppt [6609] (384K)
- JET high field/high current H-mode - extrapolation to DT operation (Voitsekhovitch): ppt [6610] (480K)
- Current diffusion analysis on JET hybrid shots (Garcia): ppt [6611] (384K)
- New simulations of ITER hybrid scenario (Garcia): ppt [6612] (352K)
- ITER baseline scenario ramp-up simulations with CREATE-NL + JINTRAC. Comparison CoppiTang/Bohm-gyroBohm - preliminary results (Koechl): ppt [6613] (800K)
- Parameters for EPED simulations (Litaudon): ppt [6614] (640K)
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- Impurity concentration during the current ramp up (Belo): ppt [6616] (1.3M)
- Predictive modelling of current ramp-down in JET discharges (Lonnroth): pdf [6617] (1.7M)
- JET current ramp down with METIS code (Artaud): ppt [6618] (480K)
- Update on ISM-P2-2010/11-08: ASDEX hybrid modelling (Citrin): ppt [6619] (1.1M)
- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [6620] (480K)
- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [6621] (224K)
- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [6622] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [6623] (640K)
- Very preliminary JT-60SA modelling with METIS code - Scenario #4 (Litaudon): ppt [6624] (1.9M)
- Conclusion working session Culham (Litaudon): ppt [6625] (544K)
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- ITER integrated modelling: Plasma Simulator(s) and Spatial Domain Coupling (Houlberg): ppt [6628] (320K)
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[6614] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/3.Wednesday/Litaudon_EPED.ppt
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[6617] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Lonnroth_JET_current_ramp_down2.pdf
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[6619] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/JCitrin_ASDEX_CRONOS_GLF_report.ppt
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[6621] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/IHogeweijITERhybridramp_up3dec2010.ppt
[6622] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Nardon_ITER_hybrid_METIS.ppt
[6623] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Coppi_Tang_D3D.ppt
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[6625] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2010/5.Friday/Litaudon_concludingremarks_ISM.ppt
[6626] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/1.Monday/ISM_WS_agenda.pdf
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[6628] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/t110308_ISM.ppt
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- Integrated ITER scenario modelling and density evolution prospects (Wiesen): pdf [6630] (1.1M)
- Fully predictive modelling of L-H and H-L transition (Parail): ppt [6631] (2.8M)
- ETS (Coster): ppt [6632] (13M)
- Simulations of the H to L transition in JET plasmas (Belo): ppt [6633] (4.1M)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [6634] (192K)
- Current diffusion analysis on JET hybrid shots (Garcia): pdf [6635] (96K)
- Draft of ISM talk on T&C ITPA for discussion/completion: ISM modelling activity on current ramp up (Voitsekhovitch): ppt [6636] (1.5M)
- JT-60SA: operational scenarios and assessment of the plasmas (Giruzzi): ppt [6637] (6.8M)
- First CRONOS simulation of JT60-SA (Schneider): pdf [6638] (1.4M)
- LHCD in JT60_SA: a preliminary study (Barbato): pdf [6639] (288K)
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- SOUL1D benchmark using EDGE2D models and JET reference shots (Guillemaut): ppt [6642] (640K)
- Predictive modelling of H-L transition in JET (Parail): ppt [6643] (512K)
- Report on AUG modelling (Hobirk): ppt [6644] (768K)
- ETS validation (Basiuk): ppt [6645] (800K)
- Optimizing ITER current ramp-up for hybrid scenario (Hogeweij): ppt [6646] (224K)
- ITER hybrid density modelling: current status (Koechl): ppt [6647] (160K)
- Optimisation of operational space for long pulse scenarios (Polevoi): doc [6648] (64K)
- Optimisation of operational space for long pulse scenarios: xml table (Polevoi): xml [6649] (64K)
- Residual fuelling by LFS hydrogen pellets in He plasmas (Polevoi): doc [6650] (128K)
- First modelling of JT-60SA (Giruzzi): ppt [6651] (3.3M)
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[6631] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/Parail_IO.ppt
[6632] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/ISM_IO_core_SOL_integration_meeting/IMP3_ETS-v1.ppt
[6633] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/2.Tuesday/Reports_from_WS/EPS-belo2011.ppt
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[6637] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/4.Thursday/GiruzziJT-60SA_ISM_1.ppt
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[6641] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Harting.ppt
[6642] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ISM_Guillemaut.ppt
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[6647] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/ITER_hybrid_pred_ne.ppt
[6648] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Tasks-Long-Pulse-ISM-Call_for_data.doc
[6649] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[6650] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[6651] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
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- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [6655] (2.3M)
- Update on hybrid scenario (Garcia): ppt [6656] (704K)
- Controllability analysis of the magnetic flux distribution in ITER hybrid scenarios (de Baar): pdf [6657] (2.3M)
- RAPTOR: a lightweight transport model for open-loop optimization and real-time simulation (Felici): pdf [6658] (3.8M)
- Modeling development for control for ITER advanced scenarios (Casper): pdf [6659] (1.8M)
- Current ramp up in JET hybrid scenarios (Voitsekhovitch): pdf [6660] (1.3M)
- Introduction (Litaudon): pdf [6661] (384K)
- ASTRA, JETTO, ETS benchmarking for current drive case 2: NCLASS (Voitsekhovitch): pdf [6662] (672K)
- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [6663] (224K)
- Analysis of current diffusion on ASDEX-Upgrade (Garcia): ppt [6664] (512K)
- Optimisation of the current ramp up phase for hybrid ITER discharges (Hogeweij): ppt [6665] (512K)
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- Update on hybrid scenario (Garcia): ppt [6667] (736K)
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- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [6669] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [6670] (2.2M)
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- Welcome (Voitsekhovitch): pdf [6672] (576K)
- Introduction (Litaudon): ppt [6673] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [6674] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [6675] (4.1M)

[6653] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[6654] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[6655] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[6656] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
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[6669] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[6670] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
[6671] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[6672] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[6673] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[6674] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[6675] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx

- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [6676] (864K)
- Introduction (Litaudon): ppt [6677] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [6678] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [6679] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [6680] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [6681] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [6682] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [6683] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [6684] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [6685] (2.8M)
- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [6686] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [6687] (192K)
- Edge modelling resources - November 2011 (Groth): ppt [6688] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [6689] (2.2M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [6690] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [6691] (2.1M)
- Introduction (Litaudon): ppt [6692] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [6693] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [6694] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [6695] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [6696] (992K)
- L-H and H-L transition (Belo): ppt [6697] (704K)
- LHCD during JET current ramp up (Barbato): pdf [6698] (416K)

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[6678] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex214_Challis_modelling_needs_8Nov2011.ppt
[6679] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
[6680] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.1.5_Modelling.ppt
[6681] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex3_2_1_GC_TFM081111.ppt
[6682] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/mailloux_bourdelle_Ex2.1.7_08-11-2011.ppt
[6683] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[6684] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[6685] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt
[6686] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[6687] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
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[6689] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf
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[6696] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
[6697] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Belo_LH_and_HL_transition.ppt
[6698] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf

- Particle transport in JET and ITER HS (Garzotti): ppt [6699] (192K)
- Real time control (Liu): pptx [6700] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [6701] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [6702] (3.0M)
- Local information (Koechl): ppt [6703] (2.9M)
- Agenda (Litaudon): pdf [6704] (64K)
- Introduction (Litaudon): ppt [6705] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [6706] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [6707] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [6708] (1.9M)
- NCLASS benchmark (Basiuk): ppt [6709] (544K)
- Current diffusion in hybrid scenarios (Garcia): ppt [6710] (352K)
- Density simulation in JET HS (Garzotti): ppt [6711] (576K)
- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [6712] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [6713] (416K)
- Free boundary equilibrium transport simulations of ITER scenarios under control (Urban): ppt [6714] (640K)
- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [6715] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [6716] (864K)
- Implementation of the JT-60SA NBI configuration in EU transport codes (Bolzonella): ppt [6717] (1.5M)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): ppt [6718] (672K)
- Predictive simulations of JT60-SA (Garzotti): ppt [6719] (1.0M)
- Welcome and local information (Voitsekhovitch): ppt [6720] (352K)
- Agenda (Litaudon): ppt [6721] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [6722] (576K)

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[6704] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ISM_agenda_WS_May_2012.pdf
[6705] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[6706] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
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[6711] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
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[6719] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
[6720] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[6721] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
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- Pulses for analysis with the ILW (Joffrin): ppt [6723] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [6724] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [6725] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [6726] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [6727] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [6728] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [6729] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [6730] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [6731] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [6732] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [6733] (288K)
- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [6734] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [6735] (320K)
- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [6736] (2.6M)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [6737] (1.7M)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [6738] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [6739] (416K)
- H-L transition with ITER like wall (Belo): ppt [6740] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [6741] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [6742] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [6743] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [6744] (832K)

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[6726] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/2.Tuesday/Joffrin_TF.ppt
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[6733] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
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[6744] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/ISM_presentationJET_jeronimo.pptx

- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [6745] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [6746] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [6747] (480K)
- Conclusions, information (Litaudon): ppt [6748] (640K)
- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [6749] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [6750] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [6751] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [6752] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [6753] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [6754] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [6755] (544K)
- European Transport Solver Status (Basiuk): ppt [6756] (608K)
- Code camp report (Figueiredo): pdf [6757] (288K)
- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [6758] (22M)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [6759] (2.9M)
- Linear Stability Chain in the new gateway (Nabais): ppt [6760] (4.6M)
- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [6761] (736K)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [6762] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [6763] (288K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [6764] (192K)
- Activity within ISM (Barbato): pptx [6765] (320K)
- Closing of working session (Voitsekhovitch): pdf [6766] (224K)
- Agenda and working groups (Voitsekhovitch): pdf [6767] (256K)

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[6748] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Litaudon_conlusion.ppt
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- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [6768] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [6769] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [6770] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [6771] (288K)
- Agenda (Voitsekhovitch): pdf [6772] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [6773] (3.5M)
- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [6774] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [6775] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [6776] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [6777] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [6778] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [6779] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [6780] (2.4M)
- Agenda (Voitsekhovitch): pdf [6781] (96K)
- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [6782] (640K)
- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [6783] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [6784] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [6785] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [6786] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [6787] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [6788] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [6789] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [6790] (96K)

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- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [6791] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [6792] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [6793] (1.1M)
- Agenda (Voitsekhovitch): ppt [6794] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [6795] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [6796] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [6797] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [6798] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [6799] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [6800] (2.5M)
- Introduction meeting 29 September (Litaudon): pdf [6801] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [6802] (320K)
- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [6803] (288K)
- Introduction meeting 27 October (Litaudon): pdf [6804] (224K)
- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [6805] (1.2M)
- Optimization of the EC Launchers (Henderson): pdf [6806] (3.2M)
- Introduction meeting 10 November (Litaudon): pdf [6807] (224K)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [6808] (1.5M)
- Introduction meeting 24 November (Litaudon): pdf [6809] (224K)
- Introduction meeting 19 January 2011 (Litaudon): pdf [6810] (608K)
- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [6811] (160K)
- Optimisation of operational phase for long-pulse scenarios (Polevoi): pdf [6812] (160K)

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[6812] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_01_19/Polevoi-Tasks-Long-Pulse.pdf

- Introduction meeting 9 February 2011 (Litaudon): pdf [6813] (544K)
- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [6814] (320K)
- Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch): pdf [6815] (160K)
- Introduction meeting 16 February 2011 (Litaudon): pdf [6816] (192K)
- Benchmark the ETS/impurity code against SANCO (Belo): pdf [6817] (544K)
- EMC3-EIRENE 3D fluid SOL code package (Harting): pdf [6818] (256K)
- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [6819] (128K)
- Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon): ppt [6820] (1.4M)
- Introduction meeting 6 April 2011 (Litaudon): ppt [6821] (896K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results (Garzotti): pdf [6822] (384K)
- Validation exercise of the Kepler Workflow (Basiuk): pdf [6823] (64K)
- Summary report on ISM WS & ETS CC: ETS benchmarking (Voitsekhovitch): pdf [6824] (256K)
- Introduction meeting 27 April 2011 (Litaudon): pdf [6825] (1.6M)
- IOS/ITPA activities (Litaudon): ppt [6826] (32K)
- Optimizing ITER Current Ramp-up for hybrid scenario (Hogeweij): pdf [6827] (224K)
- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [6828] (1.8M)
- Introduction meeting 11 May 2011 (Litaudon): pdf [6829] (288K)
- ETS V&V activity during coming Code Camp 23-27 May Helsinki (Voitsekhovitch): pdf [6830] (224K)
- Analysis of the hybrid shot 77280 (Garcia): pdf [6831] (96K)
- Introduction meeting 8 June 2011 (Litaudon): pdf [6832] (192K)
- Summary of Chapter 2: Theoretical models and simulation codes (Giruzzi): pdf [6833] (352K)
- Predictive transport simulations of JET L-mode plasmas: comparison between the GLF23 and the new TGLF model (Fable): pdf [6834] (1.8M)
- Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO (Voitsekhovitch): pdf [6835] (832K)

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- Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti): pdf [6837] (1.3M)
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- SOUL: a 1D SOL module for CRONOS (Goswami): pdf [6843] (384K)
- Chapter 10: Theoretical modeles and simulation codes (Giruzzi): pdf [6844] (192K)
- Plasma scenarios for JT60SA (Joffrin): pdf [6845] (608K)
- Introduction meeting 28 September 2011 (Litaudon): pdf [6846] (224K)
- Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch): pdf [6847] (4.5M)
- Introduction meeting 12 October 2011 (Litaudon): pdf [6848] (224K)
- Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail): pdf [6849] (3.7M)
- Update on current ramp up modelling (T&C ITPA meeting) (Voitsekhovitch): pdf [6850] (1.7M)
- General information and preparation to the ISM working session November 7-11 2011 (Voitsekhovitch): ppt [6851] (960K)
- Introduction meeting 23 November 2011 (Litaudon): ppt [6852] (1.1M)
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- A theory-based criterion for Internal Transport Barrier formation (Militello): pdf [6855] (672K)
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- DEMO modelling using PROCESS (Kemp): ppt [6857] (384K)
- Pellet DEMO (Garzotti): ppt [6858] (2.5M)

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- ACT1 restart (Voitsekhovitch): pdf [6860] (736K)
- Introduction meeting 22 February 2012 (Litaudon): pdf [6861] (224K)
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- Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch): pdf [6863] (2.0M)
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- IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch): pdf [6865] (960K)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [6866] (192K)
- Introduction meeting 13 June 2012 (Litaudon): ppt [6867] (384K)
- Integrated core-edge modelling for JET Hybrid scenario (Belo): ppt [6868] (1.3M)
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- Modelling of ELM mitigation at JET (Koechl): pdf [6873] (2.1M)
- Density simulation in JET HS (Garzotti): pdf [6874] (128K)
- Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban): pdf [6875] (4.0M)
- A new free-boundary equilibrium evolution code, FREEBIE (Kim): pdf [6876] (896K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pdf [6877] (384K)
- Integrated modelling of JT-60SA scenarios with the METIS code (Giruzzi): pdf [6878] (448K)
- Transport and Confinement in JT-60SA (Barbato): pdf [6879] (576K)
- Introduction and ISM IAEA Modelling of Hybrid Scenario: from present-day experiments toward ITER (Litaudon): pdf [6880] (2.1M)

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[6867] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Litaudon_introduction.ppt
[6868] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[6869] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[6870] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[6871] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf
[6872] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[6873] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
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[6879] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Barbato.pdf
[6880] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Litaudon_introduction_summaryIAEA.pdf

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- NBI simulations for DEMO1 (Baruzzo): ppt [6900] (3.7M)

[6881] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Falchetto_ITM_IAEA.pdf
[6882] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_09_26/Kalupin_Summary_IAEA.pdf
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[6899] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Simulations_COREDIV_DEMO_discharges.ppt
[6900] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/Baruzzo_23_5_13.ppt

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[6901] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[6902] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[6903] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
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[6907] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
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[6912] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt
[6913] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[6914] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[6915] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
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[6927] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISM_Annual_report_2013.pdf
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[6934] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_WorkFlow_2013/HLST_IPS.ppt
[6935] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[6936] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx
[6937] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[6938] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[6939] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
[6940] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Workflows.ppt
[6941] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP12-2012_Mini_General_Meeting.pptx
[6942] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP3_2012_GM.ppt
[6943] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITMGM_IMP4.pdf
[6944] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/IMP5_Innsbruck_2012_v1.pptx

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[6945] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/CodeCamp2012_Innsbruck_IMP5_Vlad_Gregorio.pdf
[6946] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISM_Annual_report_2012.ppt
[6947] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Opening.ppt
[6948] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITM_overview.ppt
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[6955] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[6956] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[6957] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[6958] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
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[6960] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt
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[6965] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
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[6968] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt

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- Detailed Overview of the Plasma State Software (McCune): pdf [6983] (192K)
- Consistent Physical Objects - A data structure concept for Integrated Modelling (Imbeaux): ppt [6984] (1.6M)
- Code Specific Parameters (Konz): pdf [6985] (832K)
- Storing Data on a Grid / AMNS (Coster): ppt [6986] (4.1M)
- ADIOS 1.2 (Klasky): pdf [6987] (3.1M)
- Universal Access Layer (Manduchi): pdf [6988] (1.1M)
- LSDF - Large Scale Data Facility at KIT (Hardt): pdf [6989] (2.1M)
- Distributed Resources in Kepler (Plociennik): ppt [6990] (1.7M)

[6969] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[6970] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[6971] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[6972] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[6973] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[6974] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ITM_Overview_GF.pdf
[6975] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/US-EU_SWIM_Overview.pdf
[6976] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacetsIntro20101203.pdf
[6977] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPES_Tour_de_Project.pdf
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[6982] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv
[6983] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[6984] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[6985] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[6986] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[6987] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[6988] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[6989] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[6990] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt

- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [6991] (2.2M)
- IMP12 Kepler Workflows (Konz): pdf [6992] (1.3M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [6993] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [6994] (3.5M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [6995] (17M)
- evolving equilibrium (Coster): movie1 [6996] (32M)
- evolving plasma (Coster): movie2 [6997] (33M)
- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [6998] (896K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [6999] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [7000] (480K)
- Agenda (Strand): pdf [7001] (64K)
- Introduction Impact of EUFORIA (Pr, David) (Strand): pdf [7002] (2.2M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [7003] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [7004] (544K)
- NA2: Training (Adrian) (Jackson): pdf [7005] (96K)
- NA3: Dissemination (Miguel) (Cardenas): pdf [7006] (2.3M)
- SA1: Grid (Marcus) (Hardt): pdf [7007] (1.7M)
- SA2: HPC (Adrian) (Jackson): pdf [7008] (64K)
- SA3: User support (Adrian) (Jackson): pdf [7009] (64K)
- Cloud pilot: Cloud demo (Marcin) (Plociennik): pdf [7010] (192K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [7011] (35M)
- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [7012] (1.5M)

[6991] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[6992] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[6993] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[6994] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[6995] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[6996] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
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[7002] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[7003] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
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[7006] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
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[7010] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[7011] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[7012] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf

- JRA2 Code adaptation for HPC (Adrian) (Jackson): pdf [7013] (160K)
- Demonstration/Discussion (Antonio, David T) (Tskhakaya): pdf [7014] (896K)
- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [7015] (19M)
- JRA3: workflows (Bernard) (Guillerminet): pdf [7016] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [7017] (704K)
- MHD workflows (Christian) (Konz): pdf [7018] (352K)
- MHD workflows (Christian), movie (Konz): movie [7019] (22M)
- Mixed grid HPC Workflow (Antonio) (Gomez): pdf [7020] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [7021] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [7022] (33M)
- Exploitation and sustainability - (Par, David) (Coster): pdf [7023] (160K)

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total size: 15968 pages
total size of documents: 1958.094M

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26.9 Documents (sorted by addressee)

26.9.1 developer

- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental data retrieval (F.Imbeaux) [7024] (320K)
- Recent experiences with CAD to neutronics and physics code conversion (Arter): CAD to Physics Codes (W.Arter) [7025] (1.2M)
- Case study of conversion from CAD to SolidWorks and Paraview formates by CADfix (Arter): CAD fix to Physics Codes (W.Arter) [7026] (800K)
- 3D wall model of ASCOT (Sipilä): ASCOT 3D wall (S.Sipil) [7027] (15M)
- Grid generation for Cedres++ (Boulbe): CEDRES++ full 2D domain meshing (G.Huysmans) [7028] (960K)
- EDRG 3D wall descriptions (Coster): 3D codes on the IMP3 forge (D.Coster) [7029] (480K)
- ASPOEL mesh generator (Subba): ASPOEL mesh generator (F.Subba) [7030] (672K)

[7013] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[7014] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf
[7015] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[7016] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[7017] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[7018] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[7019] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[7020] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[7021] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[7022] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[7023] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[7024] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_ExperimentalDataITM_v2.pdf
[7025] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_CADtophys.pdf
[7026] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_wa_cadfix_test.pdf
[7027] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASCOT_3D_wall_ITM.ppt
[7028] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_maillage_cedres.ppt
[7029] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_2009_06_04_IMP3_codes_v2.ppt
[7030] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ASPOEL_Mesh_Generator.ppt

- Development of a flight simulator for the control of plasma discharges (Ravenel): Flight Simulator for controlling plasma discharges (N.Ravenel) [7031] (1.6M)
- ITM control workflow concepts (Imbeaux): ITM control workflow concepts (F.Imbeaux) [7032] (1.2M)
- Overview of ITM-TF datastructure, machine description, and 3D related activities (Coelho): Overview of ITM datastructure heading to 3D (R. Coelho) [7033] (4.5M)
- Meshing strategy guidelines (Palumbo): 3D Meshing strategies guidelines in RWM codes (M. Palumbo) [7034] (4.2M)
- Edge CPO (Subba): Edge CPO and grid structuring (F. Subba) [7035] (1.5M)
- Modeling, simulation, and controller design using ScicosLab and Kepler (Mannori): Modeling, simulation, and controler design using ScicosLab and Kepler (S. Mannori) [7036] (1.9M)
- Advanced Scicos, Kepler, and Simulink integration (Mannori): Advanced Scicos, Kepler, and Simulink integration (S. Mannori) [7037] (6.3M)
- ISIP-ACT12 Control toolbox (Ravenel): ISIP-ACT12 Control Toolbox (N. Ravenel) [7038] (1.4M)
- Approach on parallel I/O (Galonska): Approach on parallel I/O (A. Galonska) [7039] (768K)
- Kepler actor generation from simulink components (Manduchi): KEPLER Actor Generation from Simulink Components (G. Manduchi) [7040] (320K)
- Multiplexing/Demultiplexing actors (Hoenen): Multiplexer/De-multiplexer (O. Hoenon) [7041] (2.6M)
- Machine Description User Guide. (Imbeaux): User Guide [7042] (1.2M)
- New angles for the line integrated signals. (Coelho): report [7043] (128K)
- Definition of flux loops in EU-ITM datastructure (Coelho): Flux loop position [7044] (576K)
- PF connections (Coelho): PFconnections [7045] (64K)
- Langmuir CPO (Coelho): Langmuir probes [7046] (576K)
- Fusion CPO (Coelho): Fusion CPO [7047] (256K)
- Data Mapping User Guide (Signoret): User Guide [7048] (1.4M)
- Basics on exp2ITM usage. (Signoret): presentation [7049] (2.3M)
- Data structures in practice (Imbeaux): Data Structures inPractice [7050] (1.0M)
- The universal access layer user guide (Manduchi): UAL User Guide [7051] (448K)
- ITM gateway user's guide (Guillerminet): Gateway User'sGuide: [7052] (3.9M)
- UAL Tutorial (Imbeaux): UAL tutorial [7053] (32K)
- ISIP tools training (Imbeaux): Introduction: [7054] (416K)

[7031] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Ravenel.ppt
[7032] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Imbeaux.ppt
[7033] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_ITM_datastructure.ppt
[7034] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_MFP_Garching.ppt
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[7036] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/CEA-ENEA_P1_r2.pdf
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[7054] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_Training_May2009.pdf

- Using XML for code specific parameters (Konz): Fortran XML Parser: [7055] (768K)
- Influence of a Non-Uniform Resistive Wall on the External Kink Modes in a Tokamak (Atanasiu): ppt [7056] (2.3M)
- XML2EQ (YAXFI) (Giovannozzi): ppt [7057] (64K)
- Interpos - Generic Code Params - Numerical Fit (Sauter): pdf [7058] (320K)
- Fitting to Scattered Data (Zwingmann): ppt [7059] (384K)
- Coupling between CREATE-NL and JINTRAC (Koechl): ppt [7060] (5.5M)
- DINA-CH full tokamak simulator (Lister): pdf [7061] (1.3M)
- Free boundary equilibrium code CEDRES++ (Blum): pdf [7062] (800K)
- EQUAL in predictive mode (Zwingmann): ppt [7063] (320K)
- Standardized equations (unknown): Form of the standardizeequations [7064] (128K)
- ETS Doxyfile (Coster): (PDF) [7065] (84M)
- Preliminary Draft: Guidelines for the Validation and Verification Procedures (Strand): Validation Procedure (Draft) [7066] (96K)
- Guidelines for the Validation and Verification Procedures (Appendix) (Strand): Validation Procedure (Appendix) [7067] (288K)
- Overview of the European Integrated Tokamak Modelling Task Force (Falchetto): pdf [7068] (2.1M)
- Center for Simulations of Wave Interactions with MHD (SWIM) (Batchelor): pdf [7069] (1.2M)
- A Brief Introduction to FACETS (Epperly): pdf [7070] (608K)
- Tour de Project: Proto-FSP CPES (Chang): pdf [7071] (576K)
- EUFORIA - Brief Overview (Strand): pdf [7072] (1.2M)
- Center for Extended MHD Modeling (CEMM) (Jardin): pdf [7073] (36M)
- Fusion Simulation Program (FSP) (Tang): pdf [7074] (1.9M)
- ITER Needs and Requirements (Houlberg): ppt [7075] (4.5M)
- ITER PF Validation (Houlberg): wmv [7076] (12M)

[7055] https://www.efda-itm.eu/ITM/imports/isip/public/isip_FortranXMLParser.pdf
[7056] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Atanasiu_2.ppt
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[7072] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EUFORIA_EU-US.pdf
[7073] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-CEMM.pdf
[7074] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/FSP.pdf
[7075] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/T101101_EU-US.ppt
[7076] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Casper_PFValid.wmv

- Detailed Overview of the Plasma State Software (McCune): pdf [7077] (192K)
- Consistent Physical Objects - A data structure concept for Integrated Modelling (Imbeaux): ppt [7078] (1.6M)
- Code Specific Parameters (Konz): pdf [7079] (832K)
- Storing Data on a Grid / AMNS (Coster): ppt [7080] (4.1M)
- ADIOS 1.2 (Klasky): pdf [7081] (3.1M)
- Universal Access Layer (Manduchi): pdf [7082] (1.1M)
- LSDF - Large Scale Data Facility at KIT (Hardt): pdf [7083] (2.1M)
- Distributed Resources in Kepler (Plociennik): ppt [7084] (1.7M)
- Code Interface - FC2K, WS2K & HPC2K Tools (Guillerminet): ppt [7085] (2.2M)
- IMP12 Kepler Workflows (Konz): pdf [7086] (1.3M)
- Design Elements of EFFIS and Weak & Strong Couplings in CPES (Chang): pdf [7087] (1.3M)
- The Integrated Plasma Simulator: Framework for Loosely Coupled Codes (Elwasif): pdf [7088] (3.5M)
- ETS: Design Elements - Integrated Modelling (Coster): ppt [7089] (17M)
- Free-Boundary Modeling of NSTX Plasmas (Jardin): pdf [7090] (896K)
- FACETS - A Tightly-coupled Framework for Integrated Fusion Modeling (Epperly): pdf [7091] (4.7M)
- Assembling a SWIM IPS Simulation (Batchelor): pdf [7092] (480K)

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- ITM (ITM): *ITM* [7093] (2.3M)
- ITM Code Camps (ITM): *ITM Code Camps* [7094] (25M)
- ISIP (ITM): *ISIP* [7095] (2.2M)
- ISIP + IMP12: Control (ITM): *ISIP + IMP12: Control* [7096] (1.5M)
- EDRG (ITM): *EDRG* [7097] (9.3M)

[7077] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/PS_Overview_2010.pdf
[7078] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPO_Imbeaux.ppt
[7079] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Code_parameters.pdf
[7080] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/CPOs_GRID-AMNS.ppt
[7081] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Adios-1.2-12-2-2010-eff-to-par.pdf
[7082] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/UALDecember2010.ppt
[7083] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/lsdf.pdf
[7084] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Distributed_workflows_m.ppt
[7085] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Guillerminet_Code_Interface.ppt
[7086] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Kepler_workflows_imp12.pdf
[7087] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Chang_EFFIS_DesignElements.pdf
[7088] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Elwasif_SWIM_EU_USA_Meeting.pdf
[7089] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/ETS.ppt
[7090] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Jardin-SWIM.pdf
[7091] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/EpperlyFacets20101203.pdf
[7092] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Assembling_a_SWIM_IPS_Simulation.pdf
[7093] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_EPS2011_n1.ppt
[7094] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ITM_poster_CCs_n2.ppt
[7095] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_poster_EPS2011_n3.ppt
[7096] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISIP_IMP12_Control_poster_EPS2011_n.ppt
[7097] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EDRG_poster_EPS2011_n4.ppt

- AMNS (ITM): *AMNS* [7098] (2.1M)
- ISM (ITM): *ISM* [7099] (2.2M)
- IMP12 Equilibrium and Stability (ITM): *IMP12 Equilibrium and Stability* [7100] (2.9M)
- IMP3 Core (ITM): *IMP3 Core* [7101] (3.9M)
- IMP3 Edge (ITM): *IMP3 Edge* [7102] (3.6M)
- IMP4 (ITM): *IMP4* [7103] (2.1M)
- IMP5-I (ITM): *IMP5-I* [7104] (5.6M)
- IMP5-II (ITM): *IMP5-II* [7105] (16M)
- EUFORIA (EUFORIA): *EUFORIA* [7106] (5.3M)
- MAPPER (MAPPER): *MAPPER* [7107] (19M)
- Agenda (IMT): *Agenda* [7108] (1.0M)
- Introduction (Houlberg): *Introduction, W. Houlberg 10 min.* [7109] (128K)
- Use Cases and Outline of the Requirements (Imbeaux): *Use Cases and Outline of the Requirements (I), F. Imbeaux 40 min* [7110] (1.1M)
- IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt (Imbeaux): *Use Cases and Outline of the Requirements (II), F. Imbeaux 40 min* [7111] (1.1M)
- Introduction: IMAS requirements towards Frameworks and Workflows (Guillerminet): *Introduction: IMAS requirements towards Frameworks and Workflows, B. Guillerminet (20 + 20)* [7112] (1.5M)
- SWIM Framework (Elwasif): *SWIM Framework, W. Elwasif (ORNL) (20 + 10)* [7113] (1.8M)
- SOAF Framework (Hayashi): *[PDF]* [7114] (1.7M)
- SOAF Framework (Hayashi): *[PPTX]* [7115] (1.2M)
- Climate modeling Framework (Denvil): *Climate modeling Framework, S. Denvil (CNRS) (20 + 10)* [7116] (4.1M)
- Kepler (Altintas): *Kepler, I. Altintas (20 + 10)* [7117] (4.1M)
- Taverna (Soiland-Reyes): *Taverna, S. Soiland-Reyes (20 + 10)* [7118] (7.2M)

[7098] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/AMNS_EPS2011__n13.ppt
[7099] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/ISM_poster_EPS2011_n12.ppt
[7100] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP12_EPS2011_equil+stab_n5.ppt
[7101] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Core_EPS2011_n7.ppt
[7102] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP3-Edge_EPS2011_n8.ppt
[7103] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP4_poster_EPS2011_n6.pptx
[7104] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster1_EPS2011_n9.ppt
[7105] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/IMP5_poster2_EPS2011_n10.ppt
[7106] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/EUFORIA_ITMEXPO_n14.ppt
[7107] https://www.efda-itm.eu/ITM/imports/itm/public/ITM_EXPO_EPS2011/MAPPER-Combined2_n15.pdf
[7108] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMTAgenda_v9.docx
[7109] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Houlberg_IMT_Intro.pdf
[7110] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/InterfacesAndLinktoPartiesRequirements_Imbeaux_v1.ppt
[7111] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/UseCaseRequirements_Imbeaux_v4.ppt
[7112] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IMASrequirementsFramework_Workflows_v4.ppt
[7113] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Elwasif-ITER-IM-2011.pdf
[7114] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pdf
[7115] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/SOAF_hayashi.pptx
[7116] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/IPSL_ITER_CLIMATE_FRAMEWORK_Denvil.ppt
[7117] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/Altintas-IMT-June2011.ppt
[7118] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/2011-06-08-Taverna_workflow_system--ITER-IMAS_workshop_Cadarache.pdf

- Strategies for collaborative Design and Validation (Courquet): *Strategies for collaborative Design and Validation, J. Courquet (CS) (20 + 10)* [7119] (8.2M)
- Comparison of scientific workflow engines (Guillerminet): *Comparison of scientific workflow engines, reported by B. Guillerminet (CEA) (20+10)* [7120] (1.4M)
- EU ITM-TF experience with Kepler (Falchetto): *EU ITM-TF experience with Kepler, G. Falchetto (CEA) (20+10)* [7121] (1.2M)
- Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces (Imbeaux): *Introduction: IMAS requirements towards Data Structures, Data Descriptions & Code/Component Interfaces, F. Imbeaux (20+20)* [7122] (992K)
- Data structures and Code Interfaces of BPSD (Fukuyama): *Data structures and Code Interfaces of BPSD, A. Fukuyama (20+10)* [7123] (576K)
- Data coupling in the SWIM Framework: Plasma State (Batchelor): *Data coupling in the SWIM Framework: Plasma State, D. Batchelor (20+10)* [7124] (544K)
- Coupling CAD data to Simulations (Courquet): *Coupling CAD data to Simulations, J. Courquet (CS) (10 + 10)* [7125] (6.7M)
- EU ITM-TF experience with CPOs (Coster): *EU ITM-TF experience with CPOs, D. Coster (20+10)* [7126] (3.1M)
- Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing (Strand): *Introduction: IMAS requirements towards Multi-scale physics and integration of large scale computing, P. Strand (20+20)* [7127] (896K)
- Computational efficiently and simulation architecture (Courquet): *Computational efficiently and simulation architecture, J. Courquet (CS) (20 + 10)* [7128] (3.1M)
- The Mapper project (Lorenz): *The Mapper project, E. Lorenz (20+10)* [7129] (4.8M)
- Some examples of software solutions for solving multiphysics and/or multiscales problems (Poujol): *Some examples of software solutions for solving multiphysics and/or multiscales problems, M. Poujol (SOPRA Group) (25+15)* [7130] (4.1M)
- Edge and Scrape-off Layer integration (Bisai): *Edge and Scrape-off Layer integration, N. Bisai (20+10)* [7131] (192K)
- CPES (Batchelor): *CPES, D. Batchelor (20+10)* [7132] (416K)

[7119] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/CS-Presentation/IMT-CS-Strategies-for-collaborative-Design-and-Validation-Wednesday-8-June-2011.ppt
[7120] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ComparisonofScientificWfMS_v3.ppt
[7121] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-Wednesday/ITER_IMT_Kepler_ITM.ppt
[7122] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/DataInterfacesRequirements_Imbeaux_v3.ppt
[7123] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/Fukuyama-110609-IMTWS.pdf
[7124] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/SWIMPlasmaState-ITERworkshopJune2011.pdf
[7125] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/IMT-CS-Coupling-CAD-data-to-Simulations-Thursday-9-June-2011.ppt
[7126] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayMorning/ITER_IMT_CPOs_ITM.ppt
[7127] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/HPCLink_Strand.ppt
[7128] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMT-CS-Computationalefficientlyandsimulationarchitecture-Wednesday-8-June-2011.pptx
[7129] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/mapper_ELorenz.pdf
[7130] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/presentationworkshopITER.ppt
[7131] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/IMI08062011_Bisai.pdf
[7132] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-ThursdayAfternoon/CSChang-CPES.pdf

- Introduction: IMAS requirements towards Automated Plasma Reconstruction (Sauter): *Introduction: IMAS requirements towards Automated Plasma Reconstruction, O. Sauter (20+20)* [7133] (832K)
- Automated Plasma Reconstruction at JET (McDonald): *Automated Plasma Reconstruction at JET, D. McDonald (20+10)* [7134] (2.3M)
- Automated Plasma Reconstruction at ASDEX Upgrade (Fuchs): *Automated Plasma Reconstruction at ASDEX Upgrade, C. Fuchs (20+10)* [7135] (576K)
- Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D (Lao): *Automated Reconstruction and Experimental Integrated Modeling and Data Analysis in DIII-D, L. Lao (20+10)* [7136] (9.5M)
- Automated Plasma Reconstruction at LHD (Yokoyama): *Automated Plasma Reconstruction at LHD, M.Yokoyama (NIFS) (20+10)* [7137] (3.7M)
- Introduction: IMAS requirements towards Plant system integration (Sauter): *Introduction: IMAS requirements towards Plant system integration, O. Sauter (20+20)* [7138] (1.1M)
- PCS integration with Simulink, Scicos & Kepler (Huynh): *PCS integration with Simulink, Scicos & Kepler, S. Mannori (20+10)* [7139] (576K)
- Lessons learned from DINA-CH simulator (Duval): *Lessons learned from DINA-CH simulator, J. Lister (reported by B. Duval) (10+5)* [7140] (832K)
- Nuclear reactions (Kiptily): pdf [7141] (1.2M)
- Atomic, Molecular, Surface and Nuclear (AMSN) data for theITM-TF (Coster): pdf [7142] (352K)
- ITM AMNS Interface (Coster): pdf [7143] (288K)
- Simulations of theedge plasma: the role of atomic, molecular and surface physics (Coster): pdf [7144] (128K)
- Experimentalists and Diagnosticians Resource Group (EDRG) - Kick-off Meeting (Coelho): Overview of EDRG for 2009 (R.Coelho) [7145] (3.3M)
- Summary of the ITM-TF kick-off meeting of the EDRG group (Coelho): Minutes (R. Coelho) [7146] (224K)
- Summary of the first ITM-TF meeting on 3D machine descriptions (Coelho): Minutes of the Meeting (R.Coelho) [7147] (352K)
- Experimentalists and Diagnosticians Resource Group (EDRG) (Coelho): Agenda and 3D related tasks (R.Coelho) [7148] (3.6M)
- Potential 3D codes for ITM (Konz): Potential 3D codes for the ITM (C.Konz) [7149] (32K)

[7133] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/AutomatedDataRequirements_Sauter.ppt
[7134] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/McDonald_ITER_IM_Infrastructure_WS_10Jun2011_v3.ppt
[7135] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Fuchs_ASDEXUpgrade.pdf
[7136] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Lao_IMTech_2011_V4.pdf
[7137] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayMorning/Yokoyama_ITER-ITM.ppt
[7138] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PlantSystemRequirements_Sauter.ppt
[7139] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/PCS_KeplerSimulink_Huynh.pdf
[7140] https://www.efda-itm.eu/ITM/imports/itm/public/2011-06_IMT-Workshop/IMT-Workshop-FridayAfternoon/IM_Lessons_Learned_Lister_20110608.ppt
[7141] https://www.efda-itm.eu/ITM/imports/amns/public/Nuclear_reaction_list_AMNS_05-2011.pdf
[7142] https://www.efda-itm.eu/ITM/imports/amns/public/AMNS_ADAS_2008.pdf
[7143] https://www.efda-itm.eu/ITM/imports/amns/public/ITM_AMNS_Interface_2008-09.pdf
[7144] https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_paper.pdf
[7145] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_kick-off.ppt
[7146] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/EDRG_kickoff/edrg_Kick_off_minutes.pdf
[7147] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_minutes_3Dmeeting_04_06_09_v2.pdf
[7148] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_3D_walldescriptionmeeting.ppt
[7149] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/2009/3Dwall/edrg_ITM_3D_Codes.doc

- 3D Machine Description of Fusion Devices (Lunt): pdf [7150] (4.1M)
- Simulation of MSE spectra from predictive fusion plasma simulations (Dinklage): pdf [7151] (192K)
- European Reflectometer Code Consortium (ERCC) activities (Blanco): ppt [7152] (3.5M)
- Minutes of the first ITM working session on control issues (Coelho): Minutes of the working session (R.Coelho/T.Bolzonella) [7153] (64K)
- ITM-TF plasma control working session (Coelho): Welcome (R.Coelho) [7154] (3.5M)
- ITM-TF plasma control working session - Control related activities in WP-2009 (Coelho): General ITM overview (R.Coelho) [7155] (3.3M)
- Summary of existing or newly developed feedback controller(s) schemes on participating experiments (Boncagni): Controller schemes from experiments (T.Bolzonella) [7156] (288K)
- IMP1 task2 kick-off meeting - Intro (Huysmans): IMP1 control related activities (G.Huysmans) [7157] (1.1M)
- EFDA Feedback control group - general information and activities (Mazon): EFDA Feedback Control Goup summary (A.Pironti) [7158] (192K)
- DINA-CH and CRONOS - Using a full tokamak discharge simulator (Besseghir): DINA-CH + CRONOS overview (K.Besseghir) [7159] (2.1M)
- Summary of the 3D machine descriptions WS in Garching (Coelho): Minutes (R. Coelho) [7160] (192K)
- 3D wall description of fusion devices (Lunt): 3D defeaturing tool effort under the ITM (T.Lunt/S.Jms) [7161] (6.1M)
- ITM-TF plasma control working session and code camp (Bolzonella): Welcome and Agenda (T. Bolzonella) [7162] (4.5M)
- ITM-TF Plasma control working session - EDRG control related activities in WP-2010 (Coelho): EDRG Control related activities in the WP-2010 (R. Coelho) [7163] (3.3M)
- ISIP - Status of control toolbox task (Imbeaux): ISIP - Status of Control Toolbox Task "Task 12" (F. Imbeaux, G. Manduchi) [7164] (2.2M)
- Free boundary equilibrium feedback control simulations under Kepler/ITM (Brémond): Free boundary equilibrium feedback control simulations under Kepler/ITM (S. Brémond) [7165] (736K)
- Free boundary equilibrium reconstruction and feedback control in IMP12 (Konz): Free boundary equilibrium reconstruction and feedback control in IMP12 (C. Konz) [7166] (1.8M)
- CREATE-NL adaptation to ITM needs (Mattei): CREATE-NL adaptation to ITM need (M. Mattei) [7167] (736K)
- EFDA Feedback control - working group activities and perspectives (Mazon): Feedback Control WG ongoing effort (D. Mazon) [7168] (2.3M)

[7150] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/poster_lunt_ITM_2010.pdf
[7151] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/Poster_MSE_v5.pdf
[7152] https://www.efda-itm.eu/ITM/imports/edrg/public/meetings/20100913-17_Lisbon/posterITM2010_final.ppt
[7153] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Minutes.pdf
[7154] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_Welcoming.ppt
[7155] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Coelho_ITMactivities.ppt
[7156] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Bolzonella.ppt
[7157] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Huysmans.ppt
[7158] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Pironti.ppt
[7159] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090622_Besseghir.ppt
[7160] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_Minutes_3D_WS_Garching.pdf
[7161] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/3Dwall_WS_18March/edrg_3D_wall_lunt_jamsa.ppt
[7162] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/20100628_Bolzonella_Welcoming.ppt
[7163] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/EDRGControlrelatedactivities.ppt
[7164] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ISIP_ControlTasks_100628.ppt
[7165] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITMcontrol_WSCCjune2010_SB.ppt
[7166] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/ITM_WS_on_Control_June_2010.ppt
[7167] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Mattei_ITM_ws_Cadarache.ppt
[7168] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100628_02_Mazon_control.ppt

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- The European 3D Reflectometry code ERC3D - overview of structure (Lechte): The European 3D Reflectometry code ERC3D - overview of structure (C. Lechte) [7171] (352K)
- Summary discussion on ERC3D integration (Coelho): Summary discussion (R. Coelho) [7172] (96K)
- Call for participation - 2009 Work programme (Coelho): Call for Participation [7173] (1.7M)
- Annual Report 2009 (Coelho): Annual Reporting [7174] (256K)
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- ITM software policies and gateway user agreement (Strand): (pdf) [7179] (128K)
- Gateway user agreement - invite (Strand): (doc) [7180] (64K)
- Gateway user agreement - invite (Strand): (pdf) [7181] (32K)
- ITM Software License and rights (Coelho): model licence [7182] (32K)
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[7169] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITMdatastructure-ERCCWS.ppt
[7170] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/ITM_IMP12_ERCC_July_2010.ppt
[7171] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/lechte-ERC3D-codecamp-06.pdf
[7172] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/ERC3D_WS_5July/Summarydiscussion.pdf
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[7185] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/poster_HPC2K_v1.ppt
[7186] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_Parallel_UAL.ppt
[7187] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Exp2ITM-GM2010.ppt
[7188] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ISE-GM2010.ppt
[7189] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/ITM_Poster_Barana.pdf
[7190] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/Poster_T12-092010.ppt
[7191] https://www.efda-itm.eu/ITM/imports/isip/public/meetings/20100913-17_Lisbon/SimulationCataloguePoster.ppt
[7192] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_ITM_meeting_on_control_23_03_2010.pdf

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- Sawteeth and Neoclassical Tearing Modes Workflows (Sauter): ppt [7196] (832K)
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- Free Boundary Equilibrium Code CEDRES++ (Blum): pdf [7198] (608K)
- Status of MARS-F and CarMa codes on ITM (Yadykin): ppt [7199] (1.1M)
- ETS - Free Boundary Equilibrium (Coster): ppt [7200] (13M)
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- Movie: CEDRES++ isoflux (Blum): mpg [7204] (5.4M)
- Minutes of the meeting on free boundary equilibrium and transport code coupling (Konz): pdf [7205] (96K)
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- Plans for development and release of SOLPS-ITER (Bonnin): ppt [7213] (128K)
- Comparison of different iterative schemes in B2 for full-scale ITER cases. (Task WPCD-SOLPS-OPT) (Kotov): pdf [7214] (608K)

[7193] https://www.efda-itm.eu/ITM/imports/imp12/public/imp12_Control_gantt_chart.pdf
[7194] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Calabro.pdf
[7195] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Konz_website.pdf
[7196] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Poster_Sauter_OS_and_SN_final.ppt
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[7210] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_Status.pdf
[7211] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/ETS_Coster_ICNSP-2009_v5.ppt
[7212] https://www.efda-itm.eu/ITM/imports/imp3/public/core_edge_coupling_via_manual_intervention.pdf
[7213] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS-ITER_plans_Presentation_12-2014.pptx
[7214] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Kotov_WPCD-SOLPS-OPT_2014_final_present.pdf

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- Presentation to ISM about the ETS (Coster): ppt [7220] (13M)
- The ITM general grid description: A tutorial (Klingshirn): pdf [7221] (1.3M)
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- Status of grids in CPOS + edge CPOS (Subba): ppt [7223] (1.2M)
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- Introduction to ISE (Signoret): ppt [7238] (2.2M)

[7215] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/20141211_WPCD_2014_v6.pptx
[7216] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Maj_SOLPS_Dec2014.pdf
[7217] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/Yannick_WPCD_2014.pptx
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[7219] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/
[7220] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/IMP3_ETS-v1.ppt
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[7222] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Codes-poster-10-09-2010.ppt
[7223] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/CPO-poster-09-09-2010.ppt
[7224] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolver-KEPLER.pdf
[7225] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/Poster2010-EuropeanTransportSolverv2.pdf
[7226] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/20100913-17_Lisbon/POSTER_ETS_V_and_V.pdf
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[7231] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ETS_Status_and_Standards_reduced.ppt
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[7238] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/IntroductionISE.ppt

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- Requests to other projects (Coster): doc [7244] (64K)
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- ETS transport equations and list of variables (2008-08-01) (Coster): pdf [7251] (352K)
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- GRAY - EC quasi-optical ray-tracing code for ECRH and ECCD calculations in tokamaks (Figini): pdf [7259] (2.3M)

[7239] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/talk-wz-cc2010-5.ppt
[7240] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/AMNS_work.ppt
[7241] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/ITER_Integrated_Modelling_Expert_Group.pdf
[7242] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2010-03_WS-CC/TTG_JET_2010_ISM.ppt
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[7244] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Requests_to_other_Projects.doc
[7245] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/UAL_User_Guide.pdf
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[7247] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/ITM_gateway_users_guide_v3.pdf
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[7253] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/EUFORIA_Data_access.ppt
[7254] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-02-06_KickOff/IMP3_KickOff.pdf
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[7257] https://www.efda-itm.eu/ITM/imports/imp4/public/meetings/20100913-17_Lisbon/Poster_ITM_Lisbon_2010.pdf
[7258] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.pdf
[7259] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pdf

- Numerical Codes for Electron Cyclotron heating and Current Drive (Westerhof): pdf [7260] (128K)
- Neutral Beam Injection in ITM (Schneider): pdf [7261] (480K)
- Modelling NBI in ITM environment with ASCOT (Asunta): pdf [7262] (480K)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [7263] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [7264] (192K)
- Fast Particles activities during WP10 (Vlad): pdf [7265] (4.0M)
- Numerical codes for electron cyclotron heating and current drive (Bertelli): pdf [7266] (288K)
- TORBEAM: Physical Model (Bertelli): pdf [7267] (288K)
- Full-wave modelling of electromagnetic wave propagation with the code FWTOR (Tsironis): pdf [7268] (992K)
- Fast ICRH code for routine analysis (Hellsten): pdf [7269] (736K)
- Present status of NBI codes for ITM (Schneider): pdf [7270] (480K)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [7271] (12M)
- IMP5 / ACT4: RF Monte Carlo library for orbit following codes (Johnson): pdf [7272] (6.7M)
- Numerical Stability Analysis in the Accelerated Orbit Following Monte-Carlo Method (Steinbrecher): pdf [7273] (128K)
- IMP5: Energetic Particles (Vlad): pdf [7274] (1.1M)
- Hybrid MHD-Gyrokinetic codes for studying the mutual nonlinear interaction of shear Alfvén modes and energetic particles (Vlad): pdf [7275] (2.1M)
- Quick introduction to documentation with Doxygen (Johnson): pdf [7276] (2.9M)
- IMP5: ITM tools a quick start (Johnson): pdf [7277] (1.8M)

[7260] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Westerhof_TORAY-RELAX_ITM-IMP5-GM2010.pdf
[7261] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.pdf
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- IMP5 tools in 4.09a (Johnson): pdf [7281] (160K)
- Code Camp report (Goloborodko): pdf [7282] (384K)
- Integration of heating and fast particles models (Johnson): ppt [7283] (2.8M)
- IMP5 Summary (Farina): pdf [7284] (224K)
- IMP5: Energetic Particles (Vlad): ppt [7285] (2.4M)
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- TORBEAM for ITM (Poli): ppt [7287] (320K)
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- GRAY: quasi-optical ray-tracing code for ECH/CD (Figini): pdf [7290] (480K)
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- Report on ICRF benchmarking in 2014 (Bilato): IC benchmarking in 2014 [7292] (384K)
- Report on 2014 WPCD deliverable WP14-D05: benchmarking of EC codes on identified test cases (Figini): EC benchmarking in 2014 [7293] (192K)
- Report on 2014 NBI benchmarks (Schneider): NBI benchmarking in 2014 [7294] (192K)
- Integrated Scenario Modelling, ISM, Workprogramme (Litaudon): pdf [7295] (672K)
- ITER Hybrid Regime: modelling requests (Houlberg): pdf [7296] (864K)
- JET hybrid regime: requests for modelling (Joffrin): pdf [7297] (1.7M)
- Modelling of hybrid regime - present status (Parail): pdf [7298] (896K)

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[7279] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Lorenzo--GRAY-status-ITM-CC_prague_cc2011.pdf
[7280] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.pdf
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[7288] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.ppt
[7289] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.ppt
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- ASDEX Upgrade hybrid regime: requests in terms of modelling (Hobirk): pdf [7299] (1.4M)
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- Options for Poloidal Field Diffusion Equation (PFDE) in ASTRA and TRANSP (Voitsekhovitch): ppt [7301] (1.4M)
- Report on paper on density and fuelling on ITER (Garzotti): ppt [7302] (64K)
- Current ramp-up wrapup and publication (Imbeaux): ppt [7303] (1.1M)
- Welcome and agenda (Voitsekhovitch): pdf [7304] (1.9M)
- Current rampdown at JET: experimental results and modelling tasks (Nunes): pdf [7305] (7.3M)
- Hybrid experiments for ISM modelling (Joffrin): ppt [7306] (2.0M)
- Agenda (Voitsekhovitch): ppt [7307] (32K)
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- New simulations of ITER hybrid scenario (Garcia): ppt [7312] (352K)
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- JET current ramp down with METIS code (Artaud): ppt [7318] (480K)
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- #77922, #77914 Simulations with JETTO and comparison to CRONOS and measurement data (Koechl): ppt [7320] (480K)

[7299] https://www.efda-itm.eu/ITM/imports/ism/public/WS_September_2010/1.Monday/ISM_Hobirk.pdf
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- Optimising ITER current ramp up for hybrid scenario (Hogeweij): ppt [7321] (224K)
- Integrated ITER scenario modelling and density evolution prospects (Nardon): ppt [7322] (512K)
- Report on benchmarking of Coppi-Tang model in ASTRA and CORSICA (Voitsekhovitch): ppt [7323] (640K)
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- Short update on the JET/AUG hybrid modelling activity (Citrin): ppt [7363] (224K)
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[7349] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/Long-Pulse.xls
[7350] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/H-Pellet-in-He-ISM.doc
[7351] https://www.efda-itm.eu/ITM/imports/ism/public/WS_March_2011/5.Friday/GiruzziJT-60SA_ISM_report.ppt
[7352] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ISM_agenda_WS_July2011_v4.doc
[7353] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/Litaudon_introduction4july2011.ppt
[7354] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/ACT1_ISM_Voitsekhovitch_status.ppt
[7355] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/JCitrin_AUG_JET_hybrid_summary.ppt
[7356] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/1.Monday/jeronimo-ism_fom.ppt
[7357] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ISM_debaar.pdf
[7358] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/2.Tuesday/ffelici_ITM_ISM_WGmeeting05.07.pdf
[7359] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/CasperISMtalkUtrechtJuly2011.pdf
[7360] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/3.Wednesday/Irina_ISM_WS_july2011.pdf
[7361] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_introduction.pdf
[7362] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_ISM_ACT1.pdf
[7363] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/79630_GLF23_benchmark_CRONOS_JETTO.ppt
[7364] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_asdex.ppt
[7365] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/ITER_hybrid_rampup_Hogeweij.ppt
[7366] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Kochl_77922_rampdown.ppt
[7367] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/jeronimo-ism_fom_rampdown.ppt

- MHD stability analysis at ISM working session (Lonnroth): ppt [7368] (9.3M)
- JT-60SA: report from working session 04-08 July 2011 (Litaudon): ppt [7369] (1.2M)
- Benchmarking of momentum equation and GLF23 model for momentum: present status (Voitsekhovitch): doc [7370] (2.2M)
- Agenda (Litaudon): pdf [7371] (160K)
- Welcome (Voitsekhovitch): pdf [7372] (576K)
- Introduction (Litaudon): ppt [7373] (960K)
- Validation ETS JET hybrid 77922: status and future work (Casper): ppt [7374] (1.2M)
- Corisca simulations of ITER hybrid mode operation (Casper): ppt [7375] (4.1M)
- Task Force meeting on scenario modelling: introduction (Joffrin): ppt [7376] (864K)
- Introduction (Litaudon): ppt [7377] (960K)
- Wall proximity and shape validation in H-mode (Challis): ppt [7378] (6.0M)
- Characterization of L-mode domain (Frigione): ppt [7379] (1.6M)
- H-mode baseline scenario at 2.5 MA (Bucalossi): ppt [7380] (3.2M)
- L-H power threshold studies: Be/W vs C (Calabro): ppt [7381] (480K)
- Modelling requirements for Ex-2.1.7 'Current profile access and scenario overlap' (Mailloux): ppt [7382] (5.3M)
- Ex-2.3.1 Hybrid scenario development with the ILW (Hobirk): ppt [7383] (7.4M)
- Ex 1.1.7/2.2.1/2.2.2 Modelling needs (Coenen): pdf [7384] (3.0M)
- Ex -2.2.3 Integration of seeding and ELM control techniques (Monier-Garbet): ppt [7385] (2.8M)
- Ex -1.3.2 Fuelling and Seeding studies: Modelling aims (Maddison): ppt [7386] (5.7M)
- Ex -2.2.5: Radiating type III ELMy H-mode (Huber): ppt [7387] (192K)
- Edge modelling resources - November 2011 (Groth): ppt [7388] (2.6M)
- The EPED Pedestal Model: Tests on JET and Predictions for ISM ITER Scenarios (Snyder): pdf [7389] (2.2M)

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[7369] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Litaudon_JT-60SA.ppt
[7370] https://www.efda-itm.eu/ITM/imports/ism/public/WS_July_2011/5.Friday/Voitsekhovitch_momentum.ppt
[7371] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/ISM_agenda_WS_November2011.pdf
[7372] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Welcome_ISM.ppt
[7373] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/Litaudon_introduction.ppt
[7374] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CasperLowActivationISMnov2011Culham.pptx
[7375] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/1.Monday/CoriscasimulationsofITERhybridmodeoperation_SHKIM_ISM_JET.pptx
[7376] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/TF_-introduction_Joffrin.ppt
[7377] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Litaudon_introduction.ppt
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[7379] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/df-ex-2.1.3.ppt
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[7383] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Hybrid_modelling_Hobirk_8_11_2011_v2.ppt
[7384] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex2.2.2+2.2.1.Modeling_needs.pdf
[7385] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/Ex-2.2.3-modelling.ppt
[7386] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/GMaddison_TFsE1-E2_Modelling_111108.ppt
[7387] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/AHuber_Exp_2_2_5_prep_01.ppt
[7388] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/2.Tuesday/ModellingResources_Nov11_v1.ppt
[7389] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/3.Wednesday/snyder_ism_11_11.pdf

- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [7390] (96K)
- First Analysis of Integrated Magnetic and Kinetic Control Experiments for AT Scenarios on DIII-D (Moreau): pdf [7391] (2.1M)
- Introduction (Litaudon): ppt [7392] (1.2M)
- Bootstrap comparison with NCLASS CRONOS/ASTRA (Basiuk): ppt [7393] (64K)
- SANCO - ETS/impurity code benchmarking for Be (Ivanova-Stanik): ppt [7394] (1.4M)
- Modelling of JET current ramp down discharges with Bohm-gyroBohm model (Bizarro): doc [7395] (6.1M)
- Update on AUG/JET modelling (Citrin): ppt [7396] (992K)
- L-H and H-L transition (Belo): ppt [7397] (704K)
- LHCD during JET current ramp up (Barbato): pdf [7398] (416K)
- Particle transport in JET and ITER HS (Garzotti): ppt [7399] (192K)
- Real time control (Liu): pptx [7400] (352K)
- Self-consistent transport modelling with GLF23 model for JET HS 77922 (Voitsekhovitch): ppt [7401] (928K)
- JT-60SA scenario modelling (Litaudon): ppt [7402] (3.0M)
- Local information (Koechl): ppt [7403] (2.9M)
- Agenda (Litaudon): pdf [7404] (64K)
- Introduction (Litaudon): ppt [7405] (832K)
- Modelling of JET Hybrid Scenarios (Voitsekhovitch): pdf [7406] (640K)
- Optimizing the current ramp up phase for the hybrid ITER scenario (Hogeweij): ppt [7407] (1.8M)
- Application of the parameterized EPED1 model to time-dependent transport simulation (Kim): pdf [7408] (1.9M)
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- Current diffusion in hybrid scenarios (Garcia): ppt [7410] (352K)
- Density simulation in JET HS (Garzotti): ppt [7411] (576K)
- Modelling of ELM mitigation at JET: study of density depletion at high fELM (Koechl): ppt [7412] (576K)
- ITER hybrid scenario GLF23 modelling with EPED1 pedestal prediction (Citrin): ppt [7413] (416K)

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[7392] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon_conclusion.ppt
[7393] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Vincent_comp_bootstrap.ppt
[7394] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/SANCO_ETS_report.ppt
[7395] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Bizarro_ISMWS_Nov2011.doc
[7396] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/J_Citrin_ISM11_11_update.ppt
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[7398] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/BARBATO.pdf
[7399] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Garzotti_Report_ISM.ppt
[7400] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Feng_nov2011.pptx
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[7402] https://www.efda-itm.eu/ITM/imports/ism/public/WS_November_2011/5.Friday/Litaudon-JT-60SA.ppt
[7403] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Koechl_LOC.ppt
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[7405] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Litaudon_introduction.ppt
[7406] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Voitsekhovitch_IISMWS_21may2012.pdf
[7407] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/ITER_ramp_up_Hogeweij.ppt
[7408] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/1.Monday/Parameterzied_EPED1_SHKIM.pdf
[7409] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Basiuk_Code_Camp_ISM_2012.ppt
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[7411] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garzotti_JET_hybrid.ppt
[7412] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Koechl_density_depletion.ppt
[7413] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Citrin_ISM_Vienna2012.ppt

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- Modelling of ITER hybrid scenario: sensitivity analysis with METIS (Litaudon): ppt [7415] (384K)
- ARTAEMIS:Plasma response models and profile control in ITER (Liu): ppt [7416] (864K)
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- Predictive simulations of JT60-SA (Garzotti): ppt [7419] (1.0M)
- Welcome and local information (Voitsekhovitch): ppt [7420] (352K)
- Agenda (Litaudon): ppt [7421] (608K)
- High priority modeling tasks from IOS-ITPA (Sips): ppt [7422] (576K)
- Pulses for analysis with the ILW (Joffrin): ppt [7423] (1.6M)
- JINTRAC capabilities for integrated core - edge modelling (Romanelli): ppt [7424] (2.4M)
- Coupled core-SOL simulations of L-H and H-L transitions in ITER (Parail): ppt [7425] (6.2M)
- Status of the scenario analysis and modelling work for C29 and C30 (Joffrin): ppt [7426] (3.1M)
- Analysis of current diffusion with ILW (Garcia): pptx [7427] (160K)
- The q-profile formation in Hybrid pulses with ILW: modelling and experiment (Baranov): ppt [7428] (29M)
- ITER ramp-up and ramp-down (Hogeweij): pptx [7429] (704K)
- JETTO simulations of q profile during ramp up and ramp down (Barbato): pptx [7430] (544K)
- JET and JT-60U current profile modelling with identity plasma experiments (Siren): pptx [7431] (1.3M)
- Modelling of JET hybrid scenarios with GLF23 transport model: effect of the ExB shear and betae stabilization on anomalous transport (Voitsekhovitch): ppt [7432] (1.1M)
- Short update on particle transport modelling following EPS conference: ideas on how to proceed (Garzotti): ppt [7433] (288K)
- Raport JET ISM Code camp: impurity simulations for JET 81856 (Ivanova-Stanik): ppt [7434] (928K)
- Verification on the code ETS Impurity and ADAS with code SANCO for Ni (Ivanova-Stanik): ppt [7435] (320K)
- ACT1: Predictive modelling of Hybrid Scenarios and comparison to experimental data (Figueiredo): pdf [7436] (2.6M)

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[7415] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Litaudon_HybridMetis.ppt
[7416] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Feng_Vienna.ppt
[7417] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Bolzonella_JT60SA_NBI.ppt
[7418] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Garcia_JAEA_update2.ppt
[7419] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_05/5.Friday/Barbato_JT60SA.ppt
[7420] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Welcome_local_info.ppt
[7421] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/Litaudon_introduction.ppt
[7422] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/IOS_modelling_tasks.ppt
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[7424] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/1.Monday/JINTRAC_ISM_19112012.ppt
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[7433] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/4.Thursday/Garzotti.ppt
[7434] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_shot_81856.ppt
[7435] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Irena_JET_Ni_2012.ppt
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- JETTO Run to Benchmark ETS Neutrals Package (Nave): ppt [7437] (1.7M)
- ITER-like ramp-up: comparison experimental and synthesized polarimeter and MSE data (Hogeweij): ppt [7438] (384K)
- Modelling of flux consumption in ILW current ramp-up discharges (Koechl): ppt [7439] (416K)
- H-L transition with ITER like wall (Belo): ppt [7440] (4.4M)
- Modelling of current ramp down (Bizarro): ppt [7441] (224K)
- Preparation of B13-10 experiment - Hybrid with LHCD prelude (Barbato): pptx [7442] (256K)
- Status on QualiKiz and TGLF validation and implementation in CRONOS (Baiocchi): pdf [7443] (448K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pptx [7444] (832K)
- IOS-TG Ramp-up simulation Task: C - Be-W (Sips): ppt [7445] (736K)
- Pulse list for C29 and C30 (Joffrin): ppt [7446] (864K)
- ITER hybrid scenario modelling with EPED constraints (Citrin): pptx [7447] (480K)
- Conclusions, information (Litaudon): ppt [7448] (640K)
- Agenda, news from the 1st week of code camp (Voitsekhovitch): pdf [7449] (480K)
- Analysis and modelling of JET and JT-60U discharges (Garcia): pptx [7450] (1.4M)
- COREDIV physicsl model (Stankiewicz): pdf [7451] (736K)
- Modelling of the OH Ramp-Down Phase of JET Hybrid Pulses Using JETTO with Bohm-gyro-Bohm (BgB) Transport (Bizarro): pdf [7452] (1.1M)
- ASTRA-7 a state-of-the-art IPP transport code (Fable): pdf [7453] (5.6M)
- Benchmarking of new NBI version in ASTRA against NUBEAM/TRANSP (Voitsekhovitch): ppt [7454] (864K)
- Status of the NTM module on new Gateway 4.10a for ISM ACT1 (Nowak): ppt [7455] (544K)
- European Transport Solver Status (Basiuk): ppt [7456] (608K)
- Code camp report (Figueiredo): pdf [7457] (288K)
- Modelling of tungtsen accumulation in pulses with ILW in JET (Baranov): ppt [7458] (22M)
- ACT1: status of impurity simulations for JET discharges (shot 82794, t=46s) with ETS (Ivanova-Stanik): ppt [7459] (2.9M)

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[7439] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/Koechl_Ramp_up_ILW_Flux_consumption.ppt
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[7447] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2012_11/5.Friday/JCitrin_ISM_Nov2012_summary.pptx
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[7453] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/1.Monday/ASTRA7_AUG_seminar_2012_EF.pdf
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[7455] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/NTM_CC_Garching_March_2013.ppt
[7456] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Basiuk_ISM_2013_status_ETS_C.ppt
[7457] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Figueiredo.pdf
[7458] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Baranov_Report.ppt
[7459] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/ACT1_ivanova.ppt

- Linear Stability Chain in the new gateway (Nabais): ppt [7460] (4.6M)
- Role of Fast Ions on JET Hybrid Scenarios (Garcia): ppt [7461] (736K)
- ITER H-mode scenario with GLF23: impact of electromagnetic effects on fusion performance, effect of radiation (Koechl): ppt [7462] (512K)
- Integrated core-pedestal-SOL modelling for H-mode ITER scenario including impurity (Ivanova): ppt [7463] (288K)
- Status of four field (Te, Ti, ni, Vtor) modelling for ITER (Voitsekhovitch): ppt [7464] (192K)
- Activity within ISM (Barbato): pptx [7465] (320K)
- Closing of working session (Voitsekhovitch): pdf [7466] (224K)
- Agenda and working groups (Voitsekhovitch): pdf [7467] (256K)
- STUDYING SCENARIOS FOR WEST WITH METIS (Bourdelle): pptx [7468] (992K)
- Impact of W on current ramp-up phase in JET & ITER (Hogeweij): pdf [7469] (2.5M)
- Real-time reconstruction, control and optimization of plasma profiles using the RAPTOR code (Felici): pdf [7470] (4.1M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [7471] (288K)
- Agenda (Voitsekhovitch): pdf [7472] (224K)
- ITER Integrated Scenario Modelling needs (Loarte): pptx [7473] (3.5M)
- PARTICLE TRANSPORT WITH THEORY-BASED MODELS (Garcia): pptx [7474] (608K)
- Modelling pellet fuelling (but not only) for ITER (Garzotti): pptx [7475] (160K)
- Core-SOL Modelling of ELM mitigation at JET (Koechl): pdf [7476] (1.2M)
- Integrated core-SOL modelling including impurity: ITER H-mode plasma (Voitsekhovitch): pdf [7477] (224K)
- Current ramp up in ITER: effects of impurity density (Hogeweij): pdf [7478] (1.8M)
- RAPTOR capabilities for plasma simulation and control in ITER (Felici): pdf [7479] (1.8M)
- ITER Integrated Modelling Tools: Status and Outlook (Pinches): pptx [7480] (2.4M)
- Agenda (Voitsekhovitch): pdf [7481] (96K)
- Modelling of JET hybrid scenarios with European Transport Solver (Figueiredo): pdf [7482] (640K)

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[7465] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_03/3.Friday/Barbato_ISM_15_3_13.pptx
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[7482] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_06/5.Friday/A._Figueiredo_WS_Report.pdf

- ISM ACT1: progress in simulation of NTM effect in JET discharge (Nowak): pdf [7483] (480K)
- ACT1: Status of impurity modelling with ETS (Ivanova-Stanik): ppt [7484] (64K)
- Transport analysis of JET H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pptx [7485] (1.6M)
- Progress on simulations of density profiles in hybrid plasmas (Garzotti): pptx [7486] (864K)
- Four-field simulations (ni, Te, Ti, Vtor, j) of ITER HS with GLF23 model: effect of toroidal rotation on fusion performance (Voitsekhovitch): pdf [7487] (160K)
- ACT2: JET current ramp up/down modelling (Hogeweij): pdf [7488] (1.1M)
- RAPTOR-based real-time observer: first ITER demonstration (Felici): pdf [7489] (1.5M)
- Numerical optimization of the actuator trajectories in ITER hybrid scenario (Dongen): pdf [7490] (96K)
- Welcome and Agenda of 3rd ISM working session, news from 5th ITM code camp (Voitsekhovitch): ppt [7491] (2.3M)
- Heat transport study of H-MODE and hybrid plasmas using Qualikiz, TGLF and GLF23 (Baiocchi): pdf [7492] (2.0M)
- PROCESS DEMO1 simulations with JETTO+SANCO (Koechl): ppt [7493] (1.1M)
- Agenda (Voitsekhovitch): ppt [7494] (768K)
- JETTO Run to Benchmark ETS Neutrals Package (Nave): pdf [7495] (1.5M)
- Key impact of energetic ions on the establishment of advanced tokamak regimes (Garcia): pdf [7496] (160K)
- Physics comparison and modelling of the JET and JT-60U core and edge: towards JT-60SA predictions (Garcia): docx [7497] (1.3M)
- ACT2: Summary of the task on ELM mitigation by kicks (Koechl): ppt [7498] (1.1M)
- ASTRA-COREDIV simulations for ITER hybrid scenario (Ivanova-Stanik): ppt [7499] (800K)
- Modelling of JET hybrid scenarios with GLF23 transport model: ExB shear stabilisation of anomalous transport (Voitsekhovitch): ppt [7500] (2.5M)
- Introduction meeting 29 September (Litaudon): pdf [7501] (224K)
- Progress of Hybrid modeling for JET and extrapolation to D-T (Garcia): pdf [7502] (320K)
- Integrated edge modelling plans for ISM 2010/2011 (Wiesen): pdf [7503] (288K)
- Introduction meeting 27 October (Litaudon): pdf [7504] (224K)

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[7500] https://www.efda-itm.eu/ITM/imports/ism/public/WS_2013_12/5.Friday/Voitsekhovitch_ISMWS_Dec2013.ppt
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[7504] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2010_10_27/Litaudon_introduction.pdf

- Report from ITPA-IOS meeting, 18-21 October 2010, Seoul (modeling aspects) (Litaudon): pdf [7505] (1.2M)
- Optimization of the EC Launchers (Henderson): pdf [7506] (3.2M)
- Introduction meeting 10 November (Litaudon): pdf [7507] (224K)
- Status of modelling of DIII-D current ramp up discharges and comparison with JET (Voitsekhovitch): pdf [7508] (1.5M)
- Introduction meeting 24 November (Litaudon): pdf [7509] (224K)
- Introduction meeting 19 January 2011 (Litaudon): pdf [7510] (608K)
- CRONOS / JETTO benchmark on JET hybrid pulses #77922 and #76858 (Koechl): pdf [7511] (160K)
- Optimisation of operational phase for long-pulse scenarios (Polevoi): pdf [7512] (160K)
- Introduction meeting 9 February 2011 (Litaudon): pdf [7513] (544K)
- Report from ITM/IMP3 Code Camp: ETS V&V (Voitsekhovitch): pdf [7514] (320K)
- Proposals for ETS validation on JET Hybrid discharges (Voitsekhovitch): pdf [7515] (160K)
- Introduction meeting 16 February 2011 (Litaudon): pdf [7516] (192K)
- Benchmark the ETS/impurity code against SANCO (Belo): pdf [7517] (544K)
- EMC3-EIRENE 3D fluid SOL code package (Harting): pdf [7518] (256K)
- Proposals for ETS validation on JET Hybrid discharges (Garcia): pdf [7519] (128K)
- Preparation of the ISM working session 7 - 11 March 2011, Cadarache (Litaudon): ppt [7520] (1.4M)
- Introduction meeting 6 April 2011 (Litaudon): ppt [7521] (896K)
- Density modelling for hybrid scenario at JET & ITER, preliminary results (Garzotti): pdf [7522] (384K)
- Validation exercise of the Kepler Workflow (Basiuk): pdf [7523] (64K)
- Summary report on ISM WS & ETS CC: ETS benchmarking (Voitsekhovitch): pdf [7524] (256K)
- Introduction meeting 27 April 2011 (Litaudon): pdf [7525] (1.6M)
- IOS/ITPA activities (Litaudon): ppt [7526] (32K)
- Optimizing ITER Current Ramp-up for hybrid scenario (Hogeweij): pdf [7527] (224K)

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[7527] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_04_27/Hogeweij_ISM_27apr2011.pdf

- Predictive transport analysis of JET and AUG hybrid scenarios (Citrin): ppt [7528] (1.8M)
- Introduction meeting 11 May 2011 (Litaudon): pdf [7529] (288K)
- ETS V&V activity during coming Code Camp 23-27 May Helsinki (Voitsekhovitch): pdf [7530] (224K)
- Analysis of the hybrid shot 77280 (Garcia): pdf [7531] (96K)
- Introduction meeting 8 June 2011 (Litaudon): pdf [7532] (192K)
- Summary of Chapter 2: Theoretical models and simulation codes (Giruzzi): pdf [7533] (352K)
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- Report on benchmarking of GLF23 model for toroidal velocity in ASTRA, CRONOS, FASTRAN, JETTO and ONETWO (Voitsekhovitch): pdf [7535] (832K)
- Introduction meeting 22 June 2011 (Litaudon): pdf [7536] (224K)
- Density modelling for hybrid scenario at JET and ITER, preliminary results (Garzotti): pdf [7537] (1.3M)
- ISM report: comparison between Kadomtsev and 'continuous' sawtooth reconnection model in JINTRAC (Parail): pdf [7538] (192K)
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- Introduction meeting 7 September 2011 (Litaudon): pdf [7542] (288K)
- SOUL: a 1D SOL module for CRONOS (Goswami): pdf [7543] (384K)
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- Introduction meeting 28 September 2011 (Litaudon): pdf [7546] (224K)
- Report from ITM General Meeting and discussion on 2012 activities (Voitsekhovitch): pdf [7547] (4.5M)
- Introduction meeting 12 October 2011 (Litaudon): pdf [7548] (224K)
- Fully predictive modelling of H-L transition in ITER and present day tokamaks (IOS ITPA meeting) (Parail): pdf [7549] (3.7M)

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- Introduction meeting 23 November 2011 (Litaudon): ppt [7552] (1.1M)
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- Pellet DEMO (Garzotti): ppt [7558] (2.5M)
- Introduction meeting 8 February 2012 (Litaudon): pdf [7559] (384K)
- ACT1 restart (Voitsekhovitch): pdf [7560] (736K)
- Introduction meeting 22 February 2012 (Litaudon): pdf [7561] (224K)
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- Modelling of JET hybrid scenarios with GLF23 model (Voitsekhovitch): pdf [7563] (2.0M)
- Introduction meeting 25 April 2012 (Litaudon): pdf [7564] (256K)
- IOS-ITPA (16-19 April 2012) summary report: modelling (Voitsekhovitch): pdf [7565] (960K)
- Update on the collaboration project for the analysis of JT60U and JET shots (Garcia): pdf [7566] (192K)
- Introduction meeting 13 June 2012 (Litaudon): ppt [7567] (384K)
- Integrated core-edge modelling for JET Hybrid scenario (Belo): ppt [7568] (1.3M)
- Simulations of ASDEX-Upgrade HS with Bohm-gyroBohm transport model (Voitsekhovitch): ppt [7569] (512K)
- Linear gyro-kinetic analysis with GYRO code for shot 77922 (Moradi): pdf [7570] (2.3M)
- Introduction meeting 20 June 2012 (Litaudon): pdf [7571] (192K)

[7550] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_12/Voitsekhovitch.pdf
[7551] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_10_26/Litaudon_Voitsekhovitch_introduction.ppt
[7552] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Litaudon_introduction.ppt
[7553] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2011_11_23/Hogeweij_21th_Int_Toki_Conf4ISM.pdf
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[7557] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/rk_process_demo_ISM_jan_2012.ppt
[7558] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_01_25/Demo_fuel_cycle_meeting_29_11_2011.ppt
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[7560] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_08/Voitsekhovitch.pdf
[7561] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Litaudon_introduction.pdf
[7562] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_02_22/Koechl.pdf
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[7566] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_04_25/Garcia_JET_JT-60U.pdf
[7567] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Litaudon_introduction.ppt
[7568] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Belo_Integrated_core_edge_modelling.ppt
[7569] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Voitsekhovitch_ISMWS_report.ppt
[7570] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_13/Moradi_ISM_presentation_13_june_2012_JET.PDF
[7571] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Litaudon_introduction.pdf

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- Modelling of ELM mitigation at JET (Koechl): pdf [7573] (2.1M)
- Density simulation in JET HS (Garzotti): pdf [7574] (128K)
- Free-boundary equilibrium transport simulations of ITER scenarios under control (Urban): pdf [7575] (4.0M)
- A new free-boundary equilibrium evolution code, FREEBIE (Kim): pdf [7576] (896K)
- Comparative transport analysis of JET and JT-60U discharges (Garcia): pdf [7577] (384K)
- Integrated modelling of JT-60SA scenarios with the METIS code (Giruzzi): pdf [7578] (448K)
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- LHCD simulation by ASTRA/FRTC of JET discharges (Barbato): pdf [7586] (4.5M)
- Short update on particle transport modelling following EPS conference (Garzotti): pdf [7587] (96K)
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- Database for hybrid pulses with ILW: MHD, impurities, radiation, confinement (Baranov): pdf [7589] (16M)
- ISM news and coming events, preparation to coming ISM Working Session, March 11-15 2013 (Voitsekhovitch): pdf [7590] (512K)
- Turbulent transport analysis of JET H-mode and hybrid plasmas using QualiKiz, TGLF and GLF23 (Baiocchi): pdf [7591] (1.1M)

[7572] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/iVoitsekhovitch_ISM_20june2012.pdf
[7573] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Koechl_Modelling_of_ELM_mitigation.pdf
[7574] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2012_06_20/Garzotti_JET_hybrid.pdf
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[7588] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_06/Voitsekhovitch_Garcia_ISM_2013_02_06.pdf
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[7590] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/Voitsekhovitch_Garcia_Feb20_2013.pdf
[7591] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/baiocchi_tt_new1.pdf

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[7592] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_02_20/COREDIV_JETTO.pdf
[7593] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_04_10/Voitsekhovitch_Garcia_Apr10_2013.pdf
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[7601] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/TBolzonella_SensitivityStudies_ISM_23052013.pdf
[7602] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_05_23/DEMO_modelling_23_5_2013.ppt
[7603] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/Voitsekhovitch_Garcia_June26_2013.pdf
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[7607] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_06_26/ISM_rehearsal_PaulaSiren.pdf
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[7611] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Hogeweij_Hmode_workshop.ppt
[7612] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/Garcia_Hmode.ppt

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[7613] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_09_25/IOS_ITPA_Oct2013_Particle_transport_proposals_v1.ppt
[7614] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Voitsekhovitch_Garcia_Nov6_2013.ppt
[7615] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/ITPA_summary.ppt
[7616] https://www.efda-itm.eu/ITM/imports/ism/public/Remote_meetings/ISM_2013_11_06/Consortium_modelling_proposals.ppt
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[7619] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/AMNS_IMP3_v1.pptx
[7620] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/EDRG_overview_v2.ppt
[7621] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/ISIP_Overview_GM2013_v2.ppt
[7622] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/imp12_13_final.pptx
[7623] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP4_Annual_meeting_2013_Lisbon.pptx
[7624] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2013/IMP5_Lisbon_2013_v2.ppt
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[7633] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ITM-TF_GM2012.ppt
[7634] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/Pinches_ITM_Code_Camp_December_2012.pptx

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[7635] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/ISIP_Overview_GM2012_v1.ppt
[7636] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/EDRG_overview_v1.ppt
[7637] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2012/AMNS_2012_GM.ppt
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[7650] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/EDRG_overview_v1.ppt
[7651] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/AMNS_Overview_GM2011_v2.ppt
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[7653] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3_Overview_GM2011_v1.ppt
[7654] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription.ppt
[7655] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/imp5_workflow_johnson.ppt
[7656] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/ITMGM_IMP4.pdf
[7657] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/IMP3-GeneralGridDescription-long.ppt
[7658] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Visualization_Tools_in_the_ITM.ppt

- Cross project session on Control (Bolzonella): ppt [7659] (2.6M)
- Overview of AMNS activities during 2010 (Eriksson): ppt [7660] (1.8M)
- Overview of ISIP activities during 2010 (Imbeaux): ppt [7661] (3.9M)
- Overview of IMP12 activities during 2010 (Ottaviani): pps [7662] (4.6M)
- Overview of IMP3 activities during 2010 (Coster): ppt [7663] (8.6M)
- Overview of IMP4 activities during 2010 (Scott): pdf [7664] (224K)
- Overview of IMP5 activities during 2010 (Farina): ppt [7665] (3.4M)
- Overview of ISM activities during 2010 (Litaudon): ppt [7666] (1.2M)
- Overview of EDRG activities during 2010 (Coelho): ppt [7667] (18M)
- The EFDA HPC Project (Hatzky): pdf [7668] (832K)
- Integrated Modelling in ITER (Houlberg): ppt [7669] (2.3M)
- PRACE (Ottaviani): pps [7670] (160K)
- EUFORIA-Grid and HPC access for Fusion (Plociennik): ppt [7671] (12M)
- evolving equilibrium (Coster): movie1 [7672] (32M)
- evolving plasma (Coster): movie2 [7673] (33M)

26.9.3 user

- CREATE-NL axisymmetric equilibrium code - Closed loop simulations and integration with transport codes (Pironti): CREATE-NL closed loop runs and integration with transport codes (A.Pironti) [7674] (672K)
- MARS-F on ITM (Yadykin): MARS-F on ITM (D. Yadykin) [7675] (96K)
- Kepler workflow design and directors (Guillerminet): Kepler workflow design and directors (29) (B. Guillerminet) [7676] (3.1M)
- Brief overview of experimental data in the ITM framework (Imbeaux): Experimental Data Overview [7677] (320K)
- GForge AS User Manual (GForge Group L.L.C.): GForge AS User Manual [7678] (8.9M)
- GForge AS Project Administrator Manual (GForge Group L.L.C.): GForge AS Project Administrator Manual [7679] (6.0M)
- Tutorial/Demonstration: Kepler for Beginners (Signoret): Kepler tutorial [7680] (480K)

[7659] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2011/Intro_to_Control_discussion.ppt
[7660] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_AMNS.ppt
[7661] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISIP.ppt
[7662] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP12.pps
[7663] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP3.ppt
[7664] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP4.pdf
[7665] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_IMP5.ppt
[7666] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_ISM.ppt
[7667] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_ITM_2010_EDRG.ppt
[7668] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Hatzky_EFDA-HPC.pdf
[7669] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_Houlberg_ITM-ITER.ppt
[7670] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_PRACE.pps
[7671] https://www.efda-itm.eu/ITM/imports/itm/public/generalmeet/2010/Plenary_EUFORIA_ITM_2010.ppt
[7672] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Psi_5_42.mpg
[7673] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/eu_us_workshop_goeteborg_2010/Comb_psi_5_42.mpg
[7674] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2009/control/edrg_20090623_Pironti.ppt
[7675] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/yadykin_100629.ppt
[7676] https://www.efda-itm.eu/ITM/imports/edrg/public/WS/2010/WS_CEA_June/Cadarache20100629_Guillerminet_workflow.ppt
[7677] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ExperimentalDataITM_v3.pdf
[7678] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_User_Manual_5.4.pdf
[7679] https://www.efda-itm.eu/ITM/imports/isip/public/GFAS_Project_Admin_Manual_5.4.pdf
[7680] https://www.efda-itm.eu/ITM/imports/isip/public/isip_TutorialKepler.pdf

- Exercises (Imbeaux): Exercises: [7681] (320K)
- ISIP tools training (Guillerminet): Kepler Tutorial: [7682] (2.5M)
- Exercises (Guillerminet): Kepler Exercises: [7683] (864K)
- Update on FIXFREE and CREATE-NL (Calabrò): ppt [7684] (1.4M)
- Magnetohydrodynamic Properties of Nominally Axisymmetric Systems with 3D Helical Core (Cooper): pdf [7685] (12M)
- User Guide for the ETS (Coster): ETS User Guide [7686] (3.3M)
- Introduction ETS training 2011 (Huynh): Introduction training 2011, [7687] (512K)
- ETS_C training 2011 (Huynh): training 2011 [7688] (1.2M)
- ETS transport equations and list of variables (Kalupin): Description of the ETS [7689] (352K)
- Running ETS in KEPLER (Kalupin): User Guide [7690] (7.0M)
- Agenda (Strand): pdf [7691] (64K)
- Introduction Impact of EUFORIA (Pr, David) (Strand): pdf [7692] (2.2M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [7693] (30M)
- Introduction Impact of EUFORIA (Pr, David), movie (Coster): Movie [7694] (544K)
- NA2: Training (Adrian) (Jackson): pdf [7695] (96K)
- NA3: Dissemination (Miguel) (Cardenas): pdf [7696] (2.3M)
- SA1: Grid (Marcus) (Hardt): pdf [7697] (1.7M)
- SA2: HPC (Adrian) (Jackson): pdf [7698] (64K)
- SA3: User support (Adrian) (Jackson): pdf [7699] (64K)
- Cloud pilot: Cloud demo (Marcin) (Plociennik): pdf [7700] (192K)
- Cloud pilot: Cloud demo (Marcin), movie (Plociennik): movie [7701] (35M)
- JRA1 Codea adaptation for grid (Paco) (Castejon): pdf [7702] (1.5M)
- JRA2 Code adaptation for HPC (Adrian) (Jackson): pdf [7703] (160K)
- Demonstration/Discussion (Antonio, David T) (Tskhakaya): pdf [7704] (896K)

[7681] https://www.efda-itm.eu/ITM/imports/isip/public/isip_ISIP_ExercisePhysicsModule_May2009.pdf
[7682] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerTutorial_BG_v1.pdf
[7683] https://www.efda-itm.eu/ITM/imports/isip/public/isip_KeplerExercises_BG_v1.pdf
[7684] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Calabro.ppt
[7685] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Cooper_icpp2010_pres.pdf
[7686] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_User_Guide.pdf
[7687] https://www.efda-itm.eu/ITM/imports/imp3/public/introduction_ETS_2011.pdf
[7688] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_C_training_2011.pdf
[7689] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Documentation/ETS_TRANSPORT_EQUATIONS.pdf
[7690] https://www.efda-itm.eu/ITM/imports/imp3/public/imp3_ETS_in_KEPLER.pdf
[7691] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Agenda.pdf
[7692] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Introduction.pdf
[7693] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/comb_psi_5_42.900x400.mpg
[7694] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Movies/plevol_5fps.wmv
[7695] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA2.pdf
[7696] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/NA3.pdf
[7697] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA1.pdf
[7698] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA2.pdf
[7699] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/SA3.pdf
[7700] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Cloud_presentation.pdf
[7701] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cloud-tapas-bit1.avi
[7702] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA1.pdf
[7703] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA2.pdf
[7704] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/BIT1_Tskhakaya.pdf

- Demonstration/Discussion (Antonio, David T), movie (Gomez): movie [7705] (19M)
- JRA3: workflows (Bernard) (Guillerminet): pdf [7706] (1.3M)
- JRA4: visualization (Olivier) (Hoenen): pdf [7707] (704K)
- MHD workflows (Christian) (Konz): pdf [7708] (352K)
- MHD workflows (Christian), movie (Konz): movie [7709] (22M)
- Mixed grid HPC Workflow (Antonio) (Gomez): pdf [7710] (1.3M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [7711] (52M)
- Mixed grid HPC Workflow (Antonio), movie (Gomez): movie [7712] (33M)
- Exploitation and sustainability - (Par, David) (Coster): pdf [7713] (160K)

total number of documents: 690
total size: 15968 pages
total size of documents: 1958.094M

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last update: 2015-08-07 by dpc

26.10 Uncategorized Documents

26.10.1 List of uncategorized documents

- Agenda [7714] (64K)
- CfP-WP2013 [7715] (480K)
- Movie from the presentation showing the evolution of the flux surfaces [7716] (32M)
- Movie from the presentation showing the evolution of the plasma [7717] (30M)
- The old web site can be found here [7718] (0)
- Visualization of the repository activity (wmv2) [7719] (31M)
- Visualization of the repository activity (x264) [7720] (36M)
- imp5_gantt_chart.pdf [7721] (6.6M)
- imp5_gantt_chart.xml [7722] (96K)
- ppt [7723] (3.0M)
- (Browse) [7724] (2.4M)

[7705] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/tapas-bit1.avi
[7706] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA3.pdf
[7707] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/JRA4.pdf
[7708] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/jalpha_euforia.pdf
[7709] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/helena-jalpha-ilsa.avi
[7710] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/VMEC-Visualization.pdf
[7711] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/cobra-vmec.avi
[7712] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Demos/mixed.avi
[7713] https://www.efda-itm.eu/ITM/imports/euforia/public/meetings/REVIEW_2010/Presentations/Sustainability.pdf
[7714] https://www.efda-itm.eu/ITM/imports/itm/public/AGENDA_Lisbon2013.pdf
[7715] https://www.efda-itm.eu/ITM/imports/itm/public/CallForParticipation/2013/CfP-WP13-ITM.pdf
[7716] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/psi_5_42.mpg
[7717] https://www.efda-itm.eu/ITM/imports/imp3/public/ETS_Presentations/2009_ICNSP/comb_psi_5_42.900x400.mpg
[7718] https://www.efda-itm.eu/ITM/imports/itm/public/OLD_WEB_SITE/
[7719] https://www.efda-itm.eu/ITM/imports/imp3/public/ets.wmv
[7720] https://www.efda-itm.eu/ITM/imports/imp3/public/ets.mp4
[7721] https://www.efda-itm.eu/ITM/imports/imp5/public/project_management/imp5_gantt_chart.pdf
[7722] https://www.efda-itm.eu/ITM/imports/imp5/public/project_management/imp5_gantt_chart.xml
[7723] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_Documentation_ITM-GM2010.ppt
[7724] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/Phase4top.html#Link00000003

- (Browse) [7725] (32K)
- (Browse) [7726] (3.9M)
- (Browse) [7727] (32K)
- (Browse) [7728] (3.2M)
- (Browse) [7729] (3.1M)
- (Browse) [7730] (2.6M)
- (Browse) [7731] (2.4M)
- (Browse) [7732] (1.9M)
- (Browse) [7733] (1.6M)
- (Browse) [7734] (1.3M)
- (Browse) [7735] (1.1M)
- (Download) [7736] (13M)
- (Download) [7737] (23M)
- (Download) [7738] (11M)
- (Download) [7739] (7.4M)
- (Download) [7740] (5.9M)
- (Download) [7741] (5.1M)
- (Download) [7742] (4.6M)
- (Download) [7743] (4.1M)
- (Download) [7744] (3.2M)
- (Download) [7745] (2.8M)
- 2004 ITM Code Catalog [7746] (32K)
- C++ [7747] (640K)
- C++ [7748] (416K)
- C++ [7749] (352K)

[7725] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.10/Phase4TOP.html
[7726] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.8/Phase4top.html
[7727] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.3/Phase4TOP.html
[7728] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a.3/Phase4top.html
[7729] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/Phase4top.html
[7730] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/Phase4top.html
[7731] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/Phase4top.html
[7732] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/Phase4top.html
[7733] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/Phase4top.html
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[7735] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/Phase4top.html
[7736] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.8/Phase4.10b.8_HTML.zip
[7737] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10b.3/Phase4.10b.3_HTML.tar
[7738] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a.3/Phase4.10a.3_HTML.zip
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[7746] https://www.efda-itm.eu/ITM/imports/itm/public/codcat/index.html
[7747] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.10a/UALClasses.h
[7748] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.09a/UALClasses.h
[7749] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08b/UALClasses.h

- C++ [7750] (192K)
- C++ [7751] (160K)
- C++ [7752] (128K)
- C++ [7753] (128K)
- ETS Movie [7754] (30M)
- Fortran [7755] (832K)
- Fortran [7756] (832K)
- Fortran [7757] (640K)
- Fortran [7758] (544K)
- Fortran [7759] (288K)
- Fortran [7760] (256K)
- Fortran [7761] (224K)
- Fortran [7762] (192K)
- Fortran [7763] (128K)
- History [7764] (96K)
- I [7765] (2.4M)
- II [7766] (2.3M)
- ITM Publications [7767] (64K)
- ITM Visualization overview document here [7768] (128K)
- ITM standard directory layout [7769] (96K)
- ITM-Serpens-Garching2011 [7770] (6.5M)
- Links to IMP3 old pages (before 2008) [7771] (32K)
- Readme [7772] (32K)
- Readme [7773] (32K)
- SOLPS ELM Movie [7774] (3.9M)

[7750] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.08a/UALClasses.h
[7751] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.07b/UALClasses.h
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[7753] https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/4.06d/UALClasses.h
[7754] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/comb_psi_5_42.900x400.mpg
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[7765] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/P1200086.JPG
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[7769] https://www.efda-itm.eu/ITM/imports/isip/public/ITM_Library_Directory_Layout.pdf
[7770] https://www.efda-itm.eu/ITM/imports/isip/public/ITM-Serpens-Garching2011.pdf
[7771] https://www.efda-itm.eu/ITM/imports/imp3/public/index.html
[7772] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Coster_Using_AMNS_tools_README.txt
[7773] https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_CActor.README.txt
[7774] https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/24204_rqahesum.mpg

- SOLPS ELM Movie (Zoom) [7775] (3.4M)
- Slides [7776] (1.2M)
- Slides [7777] (736K)
- Slides [7778] (864K)
- Slides [7779] (1.4M)
- Slides [7780] (3.6M)
- here [7781] (32K)
- here [7782] (1.3M)
- here [7783] (4.8M)
- here. [7784] (64K)
- mpeg [7785] (32M)
- mpeg [7786] (30M)
- pdf [7787] (1.5M)
- pdf [7788] (2.4M)
- pdf [7789] (288K)
- pdf [7790] (2.3M)
- pdf [7791] (320K)
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- pdf [7794] (2.0M)
- pdf [7795] (480K)
- pdf [7796] (448K)
- pdf [7797] (480K)

7775 https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2011-03_WS-CC/24204_rqahesum_div.mpg
7776 https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Huynh_ETS.pdf
7777 https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_WZwingmann_equistab_V2.1.pdf
7778 https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Coster_Using_AMNS_tools.pdf
7779 https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_CActor.pdf
7780 https://www.efda-itm.eu/ITM/imports/isip/public/isip_Training_201203_Klingshirn_Grid.pdf
7781 https://www.efda-itm.eu/ITM/imports/isip/public/isip_timeline.pdf
7782 https://www.efda-itm.eu/ITM/imports/isip/public/isip_IntroductionISE.pdf
7783 https://www.efda-itm.eu/ITM/imports/imp5/public/training_imp5hcd_20130307.pdf
7784 https://www.efda-itm.eu/ITM/imports/isip/public/data_structure/isip_InstructionsSchemas.pdf
7785 https://www.efda-itm.eu/ITM/imports/imp3/public/psi_5_42.mpg
7786 https://www.efda-itm.eu/ITM/imports/imp3/public/comb_psi_5_42.900x400.mpg
7787 https://www.efda-itm.eu/ITM/imports/amns/public/ICAMDATA_2008_talk.pdf
7788 https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2014-12_SOLPS_Optimization/SOLPS_report_DSamaddar_GarchingDec2014.pdf
7789 https://www.efda-itm.eu/ITM/imports/imp3/public/meetings/2009-03-30_-_2009-04-03_ETS/Benchmark_Comparison_ASTRA_JETTO-2.pdf
7790 https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_HMGC-HYMAGYC.pdf
7791 https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TORBEAM_ITM-2011.pdf
7792 https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_TRAVIS_ITM_Garching_Sept2011_1.pdf
7793 https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110912-16_GM_Garching/GM2011_talk_Hellsten_SELFOlight.pdf
7794 https://www.efda-itm.eu/ITM/imports/ism/public/Publications/Imbeaux_NF_2011.pdf
7795 https://www.efda-itm.eu/ITM/imports/ism/public/Publications/Garzotti_NF_2012.pdf
7796 https://www.efda-itm.eu/ITM/imports/ism/public/Publications/citrinPPCF2012_AUGJET.pdf
7797 https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Belo_eps2011_paper.pdf

- pdf [7798] (96K)
- pdf [7799] (96K)
- pdf [7800] (160K)
- pdf [7801] (128K)
- pdf [7802] (448K)
- pdf [7803] (320K)
- pdf [7804] (1.5M)
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- pdf [7806] (320K)
- pdf [7807] (1.1M)
- pdf [7808] (1.2M)
- pdf [7809] (480K)
- pdf [7810] (640K)
- pdf [7811] (576K)
- ppt [7812] (1.2M)
- ppt [7813] (1.9M)
- ppt [7814] (3.3M)
- ppt [7815] (6.9M)
- ppt [7816] (384K)
- ppt [7817] (480K)
- ppt [7818] (6.9M)
- ppt [7819] (1.9M)

[7798] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/J_Citrin_EPS2011_paper.pdf
[7799] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Garcia_eps2011.pdf
[7800] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Hogeweij_eps2011_paper.pdf
[7801] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/hogeweij_pfr.pdf
[7802] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Garzotti_eps2012.pdf
[7803] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Voitsekhovitch_P4_066.pdf
[7804] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2012/Paper-ISM_IAEA_2012_Conf_v1.pdf
[7805] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Baiocchi_eps.pdf
[7806] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Figueiredo_EPS2013.pdf
[7807] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/Conf2013/Integrated_modelling_ELM_mitigation.pdf
[7808] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Litaudon_ITPA_IOS.pdf
[7809] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Garcia_ITPA_IOS.pdf
[7810] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2011/Voitsekhovitch_ISM_TC_ITPA_April2011.pdf
[7811] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2012/Voitsekhovitch_IOS_ITPA_04_2012.pdf
[7812] https://www.efda-itm.eu/ITM/imports/imp12/public/meetings/20100913-17_Lisbon/Talk_Sauter_numerical_tools.ppt
[7813] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_CPOs_ITM-GM2010.ppt
[7814] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[7815] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Poster_Johnson_RFOF_ITM-GM2010.ppt
[7816] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Bertelli_TORBEAM_ITM-IMP5-GM2010.ppt
[7817] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Hellsten_SELFO-light_ITM-IMP5-GM2010.ppt
[7818] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_RFOF_ITM-GM2010.ppt
[7819] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Johnson_ITMtools_ITM-GM2010.ppt

- ppt [7820] (352K)
- ppt [7821] (2.2M)
- ppt [7822] (3.7M)
- pptx [7823] (4.1M)
- pptx [7824] (320K)
- pptx [7825] (256K)
- style sheet [7826] (32K)
- video [7827] (1.3M)

total number of documents: 114
total size of documents: 424.219M

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last update: 2015-08-07 by dpc

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last update: 2012-07-18 by coster

27 Publications

ITM publication policy
Any manuscript intended for circulation outside the Task Force which is based on ITM related work has to be cleared by the Task Force Leader. In line with the EFDA Publication Rules, the following procedure applies: All proposed publications, conference contributions and abstracts need to be endorsed by the Project Leader(s) under whose project(s) the main part of the work to be reported was carried out. The manuscripts, abstracts, presentations and posters must then be submitted to the TF leadership at least 14 days prior to submission deadline for review.
Whenever ITM tools/infrastructure were used to produce the work, please add to the authors list ”and ITM-TF contributors*”
*See the Appendix to the paper of G. Falchetto et al., Nucl. Fus. submitted. Similarly for ISM related publications please add to the authors list ”and the EU-ITM ITER Scenario Modelling group”. The explicit names of the corresponding authors should be used whenever they actually contributed to the delivery of the work.
Please include the following Acknowledgments whenever part of the work was performed within the ITM-TF Workprogramme.
Acknowledgments
This work, supported by the European Communities under the contract of Association between EURATOM-(association name) was (partly) carried out within the framework of the Task Force on Integrated Tokamak Modelling of the European Fusion Development Agreement. The views and opinions expressed herein do not necessarily reflect those of the European Commission.

The current list of ITM relevant publications (not yet complete): ITM Publications [7828]

28 Newsfeed

[7820] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Nicolai--TRAVIS_ITM_prague_cc2011.ppt
[7821] https://www.efda-itm.eu/ITM/imports/ism/public/Conference_Proceedings/A0_ISM_poster_EPS2011_v4.ppt
[7822] https://www.efda-itm.eu/ITM/imports/ism/public/External_meetings/meetings_2012/Koechl_modelling_elm_mitigation_at_jet.ppt
[7823] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk+Poster_FiginiFarina_Grey_ITM-GM2010.pptx
[7824] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20100913-17_Lisbon/Talk_Schneider_NBIstatus_ITM-IMP5-GM2010.ppt
[7825] https://www.efda-itm.eu/ITM/imports/imp5/public/meetings/20110711-15_Prague_Code_Camp/Talk_Thomas-PragueSummary_prague_cc2011.pptx
[7826] https://www.efda-itm.eu/ITM/imports/itm/public/style.css
[7827] https://www.efda-itm.eu/ITM/imports/imp3/public/video/ets_gem_77922.avi
[7828] https://www.efda-itm.eu/ITM/imports/itm/public/publications/publications.html

Date	News
2012-03-28	New conventions for coordinate systems (12.2.6)
2012-03-28	Release of 4.10a for testing (5.6)
2011-07-27	information about the General Meeting (24)
2011-08-31	information about the Nice mini code camp (off of the announcements page (1))
2011-08-31	logistical information for the Cyprus code camp (off of the announcements page (1))
2011-05-26	logistical information for the Prague code camp (off of the announcements page (1))
2011-04-19	preliminary agenda for the Helsinki code camp (off of the announcements page (1))
2011-04-18	updated ITM world page
2011-03-31	EUFORIA final review presentations
2011-02-19	page maneuvering now fully functional
2011-02-07	updated ITM announcements (March 2011 Code Camp) (1)
2011-01-28	updated ITM workflows (17)

28.1 Archive

The archive hosts the past news since July 2010.

28.1.1 Archive 2010

28.1.1.1 July

Date	News
2010-07-06	EDRG goes online
2010-07-07	Newsfeed added
2010-07-07	Shots added for IMP3
2010-07-09	Material on XML added
2010-07-09	AMNS goes online
2010-07-12	Material on ITM infrastructure added
2010-07-13	updates for UAL version 4.08a
2010-07-13	new material under Conventions (12)
2010-07-15	added material on projects KeplerActors (5.16.1.2.2) and KeplerWorkflows (5.16.1.2.13)
2010-07-15	text colors added to DocBook (13.3)
2010-07-16	added material on actor manipulation scripts to HowTo's (13)
2010-07-20	automatically generated pdf's of the web page now available at
2010-07-22	added public shots at ITM Shots (14.2)
2010-07-23	created ITM front page
2010-07-28	version information added to all web pages
2010-07-29	added direct links to pdf versions of the web pages

28.1.1.2 August

Date	News
2010-08-01	task table 2010 [7829] added for IMP3
2010-08-02	Testbed for PracticalXML (13.2.1) added
2010-08-05	**search engine (html, pdf) now active**
2010-08-05	added material on How to turn a C++ code into a Kepler actor (13.9)
2010-08-07	Universal Access Layer User Guide (**??**) now online
2010-08-08	Added a link to the old ITM Code Catalog [7830] off the main page
2010-08-11	Matlab UAL expert guide (**??**) added
2010-08-12	ISIP timeline (5.18) added
2010-08-12	Data Structure Releases (5.6.1) added
2010-08-17	material on Visualization of ETS results (**??**) added
2010-08-17	all pdf files now with correct links (internal and external)
2010-08-18	project IMP4 (8) now online
2010-08-18	projects ISM (10) and EUFORIA (25) now online
2010-08-23	Verification and Validation (22) material added
2010-08-23	Gource movies (21) for the documentation project now available

[7829] `https://www.efda-itm.eu/ITM/html/.html#imp3_task_table_2010`
[7830] `https://www.efda-itm.eu/ITM/imports/itm/public/codcat/index.html`

Date	News
2010-08-24	Glossary (29) added
2010-08-27	shots available for ASDEX Upgrade (14.3)
2010-08-28	new IMP12 workflows (6.4.2) added
2010-08-28	active mailto links now in pdfs
2010-08-28	Contact List 2010 (23) added
2010-08-31	more IMP12 workflows (6.4.2) added

28.1.1.3 September

Date	News
2010-09-01	new material under AMNS (3)
2010-09-07	Gateway User Agreement (13.7) now available
2010-09-07	simplified links to graphics and imports (now simply relative links)
2010-09-15	private project web pages now online
2010-09-22	ITM Document Catalog (26) now available
2010-09-22	ITM Workflows (17) now available
2010-09-27	added directions (13.4) for categorization of imported documents
2010-09-28	IMP5 data structures (9.5) added
2010-09-28	IMP5 actor list (**??**) added
2010-09-28	download size added to imported documents in ITM document catalog (26)

28.1.1.4 October

Date	News
2010-10-01	added pilot CPO fill table (**??**) for HELENA actor (6.4.1.6.5)
2010-10-07	added CPO fill table (**??**) for ILSA actor (6.4.1.6.9)
2010-10-11	IMP5 workflow page (9.6) added
2010-10-20	ISIP news (5.4) added
2010-10-21	updated ITM general meeting material (24)
2010-10-23	material for March 2010 code camp (**??**) added
2010-10-25	Data types (**??**) and CPO instances (**??**) updated to release version 4.08b of the UAL (29)
2010-10-26	GForge manuals (5.16.1) now available

28.1.1.5 November

Date	News
2010-11-08	Material for Meeting on Coupling of Free Boundary Equilibrium and Transport Codes (**??**) now available
2010-11-18	Tools for CPO handling (11.5) have been updated to UAL (29) version 4.08b and extended for dealing with arrays of structures/cpos.

28.1.1.6 December

Date	News
2010-12-02	Outreach projects (6.7) have been added for IMP12
2010-12-03	web page for EU-US Workshop on Software Technologies for Integrated Modelling (**??**) added under EUFORIA
2010-12-11	added a list of ITM publications (additional entries are requested in BibTeX format) [DPC]
2010-12-13	material for ITM General Meeting added for ISM (**??**)
2010-12-17	new element <inmath> for inline maths (13.3.6.2) now available (Thanks to W. Zwingmann!)
2010-12-17	new guidelines for the ITM Test Bed (13.2.1) added

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last update: 2019-01-31 by g2dpc

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last update: 2010-08-26 by konz

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last update: 2012-07-18 by coster

29 Glossary

Collaborative Development Environment (CDE)

A **collaborative development environment (CDE)** is an online meeting space where a software development project's stakeholders can work together, no matter what timezone or region they are in, to discuss, document, and produce project deliverables. The name was coined by Grady Booch [7831].

Consistent Physical Object (CPO)

A Consistent Physical Object (CPO) is a physics based, hierarchical data structure employed by the ITM-TF for a complete description of a physics area, e.g. `equilibrium` . All ITM-TF code modules interact through the exchange of CPOs. The CPOs also form the basic block of data written to the ITM database.

Content Management System (CMS)

A **content management system (CMS)** is the collection of procedures used to manage work flow in a collaborative environment. These procedures can be manual or computer-based. The procedures are designed to:

- Allow for a large number of people to contribute to and share stored data
- Control access to data, based on user roles. User roles define what information each user can view or edit
- Aid in easy storage and retrieval of data
- Reduce repetitive duplicate input
- Improve the ease of report writing
- Improve communication between users

In a CMS, data can be defined as nearly anything - documents, movies, pictures, phone numbers, scientific data, etc. CMSs are frequently used for storing, controlling, revising, semantically enriching, and publishing documentation.

FC2K

FC2K is a tool for wrapping a Fortran or C++ source code into a Kepler actor. Before using it, your physics code should be ITM-compliant (i.e. use CPOs as input/output).

Gforge

Gforge [7832] hosts all projects (software and infrastructure) under the ITM-TF.

ITM Gateway

The ITM Gateway is a compute cluster located at Portici (near Napoli in Italy). It is uses for development and fusion simulations in the ITM-TF.

ITM Portal

The ITM Portal [7833] is the web portal for the ITM-TF, i.e. it hosts the ITM-TF web pages and projects under Gforge.

Integrated Simulation Editor (ISE)

The Integrated Simulation Editor ISE allows you to visualize and edit data from an ITM database entry. It also allows running a Kepler workflow based on the opened data entry.

Universal Access Layer (UAL)

The UAL (Universal Access Layer) is a multi-language library that allows exchanging Consistent Physical Objects (CPOs) between various modules, and to write to an ITM database.

actor

[7831] `http://en.wikipedia.org/wiki/Grady_Booch`
[7832] `https://gforge.efda-itm.eu`
[7833] `https://portal.efda-itm.eu`

Actors take execution instructions from a director. In other words, actors specify *what* processing occurs while the director specifies *when* it occurs.

In the ITM-TF, actors are usually modules which contain physics codes like `EQUAL` or `HELENA`.

calibration

The process of adjusting numerical or physical modelling parameters in the computational model for the purpose of improving agreement with experimental data.

data mapping

An XML file containing all the mapping essentials for mapping from a local experimental database for a specific tokamak device to the ITM database. The mapping essentials include for instance the download method, local signal names, gains and offsets, time base, and eventual interpolation option to ensure that only one time base is set for each CPO that is built from multiple local signals. A java code (exp2ITM developed under ISIP), with the MD and DM files as inputs, is then run to connect to the local device database, retrieve the required experimental data and populate the ITM database instance for that shot/device and dataversion.

director

A director controls (or directs) the execution of a workflow, just as a film director oversees a cast and crew.

error

A recognisable deficiency in any phase or activity of modelling and simulation that is not due to lack of knowledge.

kepler

Kepler is a software application for the analysis and modeling of scientific data. Kepler simplifies the effort required to create executable models by using a visual representation of these processes. These representations, or "scientific workflows", display the flow of data among discrete analysis and modeling components.

machine description

The machine description (MD) of a device basically builds on the set of engineering and diagnostic settings characterising a tokamak device. This includes, for instance, the vessel/limiter description, the PF coils and circuiting and lines of sight of diagnostics. In practice, all MD information is encapsulated in an XML file that emanates from the MD tagged datastructure schemas. An MD instance of a given device is then stored into the ITM database as shot 0 for that device database.

model

A representation of a physical system or process intended to enhance our ability to understand, predict, or control its behaviour.

- A **conceptual model** consists of the observations, mathematical modelling data, and mathematical (e.g., partial differential) equations that describe the physical system. It will also include initial and boundary conditions.
- The **computational model** is the computer program or code that implements the conceptual model. It includes the algorithms and iterative strategies. Parameters for the computational model include the number of grid points, algorithm inputs, and similar parameters, etc.

modelling

The process of construction or modification of a model

prediction

Use of a model to foretell the state of a physical system under conditions for which the model has not been validated.

simulation

The exercise or use of a model.

uncertainty

A potential deficiency in any phase or activity of the modelling process that is due to the lack of knowledge.

validation

The process of determining the degree to which a model is an accurate representation of the real world from the perspective of the intended uses of the model.

verification

The process of determining that a model implementation accurately represents the developer's conceptual description of the model and the solution to the model.

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last update: 2012-07-18 by coster

30 Periodic Reporting

The ITM-TF has started using the ITM WIKI for the reporting of project members activity during Code Camps. Please refer to the ITM wiki pages for updates on the most recent developments.

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last update: 2012-10-23 by gfalchet

31 Old Web Site

The old web site can be found here [7834]

32 Search

Embedded HTML not shown.

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last update: 2019-08-26 by g2dpc

[7834] https://www.efda-itm.eu/ITM/imports/itm/public/OLD_WEB_SITE/